STATE OF NORTH CAROLINA

North Carolina State University

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ASBESTOS ABATEMENT SPECIFICATIONS

For Construction

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SECTION 01043

PROJECT COORDINATION

1.01 GENERAL

A. All asbestos abatement contractors will be licensed general contractors in either the specialty interior, building, unclassified or asbestos categories by the North Carolina Licensing Board of General Contractors and limited for the bid amount.

B. The contractor shall be responsible for inspecting the site prior to bidding to confirm the scope of the work. Any quantities listed by the designer in the plans, specifications or survey are done so as approximations. The actual quantities of asbestos-containing material to be encountered is the responsibility of the contractor.

C. The contractor shall furnish and is responsible for all costs including, but not limited to: permit fees, containment preparation, labor, materials, services, insurance, bonding, and equipment necessary to carry out the abatement operations and disposal of all asbestos material in accordance with the plans and specifications, the EPA and OSHA regulations, and any applicable state and local government regulations.

D. The contractor/employer has and assumes the responsibility of proceeding in such a manner that he offers his employees a workplace free of recognized hazards causing or likely to cause death or serious injury. The contractor shall be responsible for performing this abatement and disposal so that airborne asbestos fiber levels do not exceed established levels.

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

F. The contractor is responsible for all costs, including additional visits, should the designer and/or the industrial hygiene firm determine that the contractor failed a final inspection. Notification and scheduling of the final inspection during the project is the responsibility of the contractor. The contractor will allow a minimum notice of 72 hours unless a different time frame is agreed upon by the designer and the contractor.

G. Contractor shall coordinate all asbestos removal activities with the owner and designer. Owner shall have continuous use of areas not included in the scope of this project.

1.02 PERSONNEL

A. Supervisor

1. All supervisors shall be accredited by the Health Hazards Control Unit (HHCU).

2. All supervisors on the project shall have five years experience in the administration and supervision of asbestos abatement projects including work practices, protective measures for building and personnel, disposal procedures, etc.

3. One supervisor shall be provided for every 10 workers inside the containment. A minimum of one supervisor shall be provided per project.

4. The contractor shall have at least one employee on the job site in either a foreman or supervisor's position who is bilingual in the appropriate languages when employing workers who do not speak fluent English.

5. A minimum of one supervisor per company shall have attended a 24 hour respiratory protection course.

6. The abatement contractor shall also be a North Carolina Certified Renovator in accordance with the standards of the Lead-Based Paint Renovation, Repair and Painting Program (EPA CFR Part 745).

B. Worker

1. All workers shall be accredited by the HHCU.

C. Competent Person

1. A competent person, as defined in the OSHA asbestos standard 29 CFR 1926.1101, employed by the contractor must be outside the work area at all times to monitor activity, ensure containment security, provide information to visitors, and provide access to the work area.

D. Employees

1. The contractor is responsible for the behavior of workers within his employment. If at any time during the contracted work, any of his employees are judged to exhibit behavior unfitting for the area or judged to be a nuisance by the owner or designer, the contractor shall remove them immediately from the project.

2. The contractor shall be responsible for compliance with the following concerning employee behavior:

a. Under no circumstances are alcohol, drugs or any other type of controlled substances permitted on state property.

b. All workers are restricted to the construction project site only.

c. All vehicles must be parked in areas prearranged with the owner.

d. All workers must conform to the following basic dress code when in public areas of the project confines: long pants, shirts, no tank tops, no shorts, no bare backs.

e. The contractor is responsible for disposal of all trash brought on state property by his employees, including drink cans, bottles or other food containers and wrappers.

3. Failure to adhere to these rules could result in criminal prosecution and/or removal from the State property.

1.03 MEETINGS

A. A pre-bid conference will be held by the owner. All remediation contractors submitting a bid are required to attend, visit the site and ask questions concerning the plans and specifications.

B. Pre-construction - Prior to beginning work on the project, an asbestos pre-construction meeting will be held at the site. The purpose of the pre-construction meeting shall be to coordinate scheduling, operation, and overall logistics for execution of the project. Contractor's project manager and supervisor are required to attend.

1.04 PRE-JOB SUBMITTALS

A. Submit three complete, bound sets of pre-job submittals to the designer at least 10 days prior to start of work. Work is prohibited until submittal package has been reviewed and approved by designer. A copy of the approved submittals shall be kept in a three-ring binder (project log) by the contractor at the project site in the clean room or in the on-site office of the contractor.

1. Notifications: Provide copies of Asbestos Permit Application and Notification for Demolition/Renovation (DEHNR 3768), which provide written notice to all required agencies, including North Carolina HHCU. Provide notification letters to local EMS, fire and police departments.

2. Employee List: Provide copies of lists of supervisors and workers, along with their accreditation and Social Security numbers, to be utilized on the project.

3. Permits: Provide copies of approval of a waste disposal site in compliance with 40 CFR 61.154.

4. Medical: Include individually signed forms by each worker to be utilized on the project documenting that each is actively involved in a company employee medical surveillance program.

5. Respirator Training: Copies of most recent fit testing records, individually signed for each worker to be utilized on the project.

6. Project Schedule: Time schedule for the project, outlining the proposed start, setup, clearances, etc. for the project.

7. Initial Exposure Assessment: As required by the OSHA construction asbestos standard 29 CFR 1926.1101.

8. Any other programs or training as outlined by the OSHA and EPA standards.

1.05 POST-JOB SUBMITTALS

A. Submit three complete, bound sets of post-job submittals to the designer following the final completion of the work. Requests for final payment will not be approved until the submittal package has been reviewed and approved by the designer.

1. Affidavits: Contractor’s affidavit of payment of debts and claims, affidavit of release of liens, and consent of surety company to final payment.

2. Manifest: North Carolina Asbestos Waste Shipment Record (DEHNR 3787) receipt from landfill operator which acknowledges the contractor's delivery(s) of waste material. Include date, quantity of material delivered and signature of authorized representative of landfill. Also, include name of waste transporter.

3. Daily Log: A copy of all daily logs showing the following: name, date, entering and leaving time, company or agency represented, reason for entry for all persons entering the work area, employee's daily air monitoring data as required by the OSHA standard and written comments by inspectors, industrial hygienists, designers and visitors.

4. Worker Submittals: Provide copies of accreditations, social security numbers, and medicals for all new workers utilized on the project.

5. Special Reports: All documents generated under Section 01043.1.06.

1.06 SPECIAL REPORTS

A. General: Except as otherwise indicated, submit special reports to designer within one day of occurrence requiring special report, with copies to others affected by occurrence. Also keep a copy in the project log book.

B. Reporting Unusual Events: When an event of unusual and significant nature occurs at site (examples: failure of negative pressure system, rupture of temporary enclosures), prepare and submit a special report to the designer immediately, listing chain of events, persons participating, response by contractor's personnel, evaluation of results or effects, and similar pertinent information. When such events are known or predictable in advance, advise designer in advance at earliest possible date.

C. Reporting Accidents: Prepare and submit reports of significant accidents, at site and anywhere else work is in progress. Record and document date and actions; comply with industry standards for reporting accidents. 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.

1.07 CONTINGENCY PLAN

A. Contingency Plan: Prepare a contingency plan for emergencies including fire, accident, power failure, negative pressure system failure, supplied air system failure (if applicable), evacuation of injured persons for both life threatening and non-life threatening, or any other event that may require modification or abridgment of decontamination or work area isolation procedures. Include in plan specific procedures for decontamination or work area isolation. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency. Keep these plans in the on-site office.

B. Post outside/in clean room of Personnel Decontamination Unit:

1. Telephone numbers and locations of emergency services including but not limited to, fire, ambulance, doctor, hospital, police, power company, telephone company and the North Carolina HHCU.

2. A copy of Material Safety Data Sheets (MSDS) for any chemicals used during the asbestos project.

3. The contractor shall post asbestos signs in each appropriate language as per the OSHA 29 CFR 1926.1101 standard.

SECTION 01092

CODES AND REGULATIONS

1.01 REFERENCE SPECIFICATIONS

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

Unless modified by these project specifications, all specifications for stripping, removal, repair and disposal work shall conform to the following specifications and standards, as applicable, as if completely reproduced herein.

A. The following regulations published by the Environmental Protection Agency (EPA):

1. "National Emissions Standards for Hazardous Air Pollutants Asbestos," 40 CFR Part 61, Subpart M.

2. "General Provisions," 40 CFR Part 61, Subpart A.

3. "Guidance for Controlling Asbestos-Containing Materials in Buildings" June 1985. (EPA # 560/5-85-024).

4. "Asbestos-Containing Materials in Schools," 40 CFR Part 763, Subpart E including appendices.

B. The following regulations published by the U.S. Department of Labor, OSHA:

1. “Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules,” Title 29, Part 1910, Section 1001 and Part 1926, Section 1101 of the Code of Federal Regulations.

2. “Respiratory Protection,” Title 29, Part 1910, Section 134 of the Code of Federal Regulations.

3. Construction Industry, Title 29, Part 1926, of the Code of Federal Regulations.

4. “Access to Employee Exposure and Medical Records,” Title 29, Part 1910, Section 20 of the Code of Federal Regulations.

5. “Hazard Communication,” Title 29, Part 1926, Section 59 of the Code of Federal Regulations.
6. “Specifications for Accident Prevention Signs and Tags,” Title 29, Part 1910, Section 145 of the Code of Federal Regulations.

C. The following regulations published by North Carolina state agencies:

1. North Carolina Asbestos Hazard Management Program Rules as adopted by 15A NCAC 19C .0600.

2. "North Carolina Occupational Safety and Health Standards for the Construction Industry," 29 CFR Part 1926 as adopted by T13 NCAC 07F .0201, and shipyard T13:07F.0500.

3. North Carolina General Statutes, Chapter 95, 97, 130.

D. The following documents published by the American National Standards Institute:

1. "Fundamentals Governing the Design and Operation of Local Exhaust Systems," Z9.2-1979.

2. "American National Standard for Respiratory Protection Respiratory Use - Physical Qualifications for Personnel," Z88.6-1984.

3. "Practices for Respiratory Protection," Z88.2-1992.

1.02 NOTICES

A. The contractor shall notify the following offices in writing within the time frame specified by the NESHAP regulations prior to beginning any asbestos removal operations.

1. State Agencies

NC Department of Health and Human Services – OEEB
Division of Public Health
Health Hazard Control Unit

(Regular Mail)
1912 Mail Service Center
Raleigh, N.C. 27699-1912
Phone: (919) 733-0820
Fax: (919) 733-8493

(UPS, Fed Ex, etc.)
NCDHHS
Health Hazard Control Unit
NCDHHS/Public Health
Room D-1
5505 Six Forks Road
Raleigh, N.C. 27609-3806

N.C. Department of Labor
Division of Occupational Safety and Health
319 Chapanoke Road, Suite 105
Raleigh, N.C. 27603-3432
Telephone: 1-800-LABOR-NC or (919) 662-4602
Fax: (919) 662-4625

2. Emergency Departments

   Notify the local emergency medical services, police and fire departments in writing of the type and scope of work being performed and request these departments make an inspection prior to beginning the work.

3. Licenses

   Maintain current licenses for contractor and accreditation for workers and supervisors as required by applicable State or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the work of this contract.

4. Contractor is responsible for payment of all permit fees required for this project.

SECTION 01410

AIR MONITORING - INDUSTRIAL HYGIENE FIRM

1.01 GENERAL

A. The owner shall be responsible for the coordination and contracting of an industrial hygiene firm. Services of the industrial hygiene firm will be paid by the owner.

B. Air monitoring shall be done under the direct supervision of a North Carolina accredited supervising air monitor (SAM), except for sampling performed by the contractor to satisfy OSHA requirements.

C. SAM shall be accredited per the Asbestos Hazard Management Program rules.

D. Air monitor shall be accredited as per the Asbestos Hazard Management Program rules and work under the direct supervision of a SAM.

E. The SAM representing each firm shall have taken a 24-hour respiratory protection course that is either NIOSH, AIHA or HHCU recognized.

F. The industrial hygiene firm shall submit copies of their N.C. accreditation's and documentation on respiratory protection training to the designer prior to the award of the contract.

G. If specific project activities are assigned to an air monitor, the SAM is expected to be in direct control and responsible for industrial hygiene work completed on the project. The SAM shall approve and sign all air monitoring results performed by the air monitor. The SAM signature must be an original. No rubber stamp signature shall be accepted.

H. Employees of the HHCU shall have right of entry into the project. The HHCU's SAM shall have final authority over the industrial hygiene firm on the project.

1.02 DESCRIPTION OF WORK

A. The industrial hygiene firm shall offer expertise to the designer and contractor, but is not directly responsible for the performance of the job.

B. At the job site, the industrial hygiene firm is expected to observe, be aware, and comment on general work site conditions and activities as they relate to the specifications and profession of industrial hygiene, and make recommendations in writing to the designer and contractor.

C. The industrial hygiene firm is responsible for overseeing the protection of the environment from contamination, protection of persons in adjacent areas, and assurance that the areas are acceptable for occupancy.

D. The industrial hygiene firm has the authority to direct the contractor relative to safety and environmental concerns. This includes stopping the work if necessary. All directions and comments made by the industrial hygiene firm to the contractor shall be written with a copy to the designer.

E. The industrial hygiene firm shall furnish the contractor a copy of his field report within 24 hours of the visit. Copies of field notes and reports of observations shall be kept in project log book.

F. The SAM shall review and make comments to the designer on the submittals listed in Section 01043.

G. The SAM shall approve any change in contractor's respiratory protection. This includes a review of the historical data.

H. The industrial hygiene firm is to conform to the contractor's schedule and shall respond to necessary changes, provided an advance notice is given as outlined in Section 01043.

I. The industrial hygiene firm's project monitor shall furnish designer and contractor with a pager or mobile phone number where he can be reached quickly at all times.

J. The industrial hygiene firm shall notify the designer and contractor, in writing, of any failed clearance visits.

K. At the completion of the project, the industrial hygiene firm shall prepare a report describing the assessment of the project, all air monitoring data, acceptance letters, calibration records, and a description of the project as it proceeded to completion and submit four copies of the report to the designer.

1.03 AIR MONITORING

A. Ambient Air Monitoring: The purpose of ambient air monitoring by the industrial hygiene firm will be to detect discrepancies in the work area isolation such as:

1. Contamination of the building outside of the work area with airborne asbestos fibers.

2. Failure of filtration or rupture in the negative pressure system.

3. Confirm the work practices established by the contractor and respiratory protection provided for employees are adequate.

B. Work Area Airborne Fiber Levels: The owner's industrial hygiene firm will monitor airborne fiber levels in the work area. The purpose of this air monitoring will be to detect airborne fiber levels which may challenge the ability of the work area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne fibers.

C. Work Area Clearance: To determine if the elevated airborne fiber levels encountered during abatement operations have been reduced to an acceptable level, the industrial hygiene firm will sample and analyze air per Section 01714.

D. In accordance with AHMB Program Rules, the SAM shall develop an Abatement Project Monitoring Plan which complies with EPA and OSHA analytical criteria and will provide a valid representation of airborne fiber concentrations both inside and outside the work area. This program is not intended to satisfy the contractor's requirement for sampling under the OSHA regulation. All personnel and area sampling conducted by the industrial hygiene firm shall be personally observed. Air sampling pumps shall not be left unattended for extended periods of time.

1. The SAM shall submit a written project monitoring plan to the designer with a copy to the contractor. The following information shall be required for the submittal.

   a. The name, address and telephone number of the industrial hygiene firm.

   b. The name, address, telephone number and NIOSH's PAT designation and proficiency data for the laboratory analyzing the air samples. Analysis of all samples collected shall be by a laboratory currently proficient in NIOSH's "Proficiency Analytical Testing Program for Laboratory Quality Control" for asbestos. The acceptable sampling and analysis method is NIOSH 7400, latest revision.
   Persons performing phase contrast microscopy (PCM) analysis at the asbestos removal location shall be proficient in the American Industrial Hygiene Association’s Asbestos Analyst Registry Program [AAR].

   c. A proposed air sampling strategy which shall include: a projected number of air samples, locations, the types of air samples to be collected (personal, area, ambient), how the air samples are to be collected (TWA, ceiling, other), the equipment to be used (pumps, calibration equipment, filters, other), and how the samples will be transported to the laboratory.

      1. All personal air samples will be collected in such a manner as to comply with OSHA collection and analytical regulations and to provide a valid representation of airborne fiber levels. The samples collected by the industrial hygiene firm on personnel do not satisfy the contractor’s responsibility under OSHA.

      2. All final area air sampling will comply with all State and Federal requirements in measuring airborne asbestos following an abatement action.

3. Air samples will be analyzed and results made available as per the AHMB Program Rules. Copies of all air sampling results shall be signed by the SAM and a copy posted at the job site. These copies shall include the following: sample number, sample location, activity represented by sample, flow rate, sample time, comments and sample results. A statement will be included on each submission that the requirements of this contract have been met as they apply to the activities of the SAM.

4. If TWA samples are being collected by the contractor for the purpose of reducing respiratory protection requirements, the industrial hygiene firm shall directly observe the conditions and work practices represented by each sample and make appropriate notes in the bound book on site. The SAM shall review all TWA air sampling results which are used for reducing respiratory protection requirements before accepting the results.

E. Supplemental air monitoring may be conducted inside and outside the work area by the HHCU. This supplemental sampling does not fulfill air monitoring responsibilities required by OSHA, EPA or this contract.

SECTION 01503

TEMPORARY FACILITIES

1.01 GENERAL

A. Provide temporary connection to existing building utilities or provide temporary facilities as required herein or as necessary to carry out the work.

B. Use qualified tradesmen for installation of temporary services and facilities. Locate, modify and extend temporary services and facilities where they will serve the project adequately and result in minimum interference with the performance of the work.

C. The owner's maintenance personnel shall lock and tag out all electrical and HVAC equipment in the asbestos abatement area. The contractor shall verify that the power and HVAC have been locked and tagged out prior to beginning work.

D. The owner shall move all furniture, books, computers, records, equipment, etc. prior to the contractor's arrival date as specified.

1.02 WATER SERVICE

A. Owner shall supply a source of water. Contractor bears all expense of heating and getting water to the work and decontamination areas.

B. Supply hot and cold water to the decontamination unit in accordance with Section 01563. Hot water shall be supplied at a minimum temperature of 100 degrees Fahrenheit.

C. After completion of use, connections and fittings shall be removed without damage or alteration to existing water piping and equipment.

1.03 ELECTRICAL SERVICE

A. General: Comply with applicable NEMA, NEC and UL standards and governing state and local regulations for materials and layout of temporary electric service.

B. Ground Fault Protection: Provide receptacle outlets equipped with ground fault circuit interrupters, reset button and pilot light, for plug-in connection of power tools and equipment.

C. Provide a weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity and power characteristics to accommodate performance of work during the construction period.

D. Install temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every area of work.

E. Provide services of an electrician, on a standby basis, to service electrical needs during the abatement process.

F. Provide additional power service and distribution service, consisting of individual dedicated 15 amp 120 volt circuits to electrical drops with receptacle outlets equipped with ground fault interrupt protection, color coded for the exclusive use of the industrial hygiene firm. Provide a minimum of five drops per containment inside work area.

1.04 FIRST AID

A. A minimum of one first aid kit shall be located in the clean room. Additional first aid kits as the contractor feels is adequate or is required by law shall be located throughout the work area.

1.05 FIRE EXTINGUISHERS

A. Comply with the applicable recommendations of NFPA Standard 10 - "Standard for Portable Fire Extinguishers." Locate fire extinguishers where they are most convenient and effective for their intended purpose, but provide not less than one extinguisher in each work area equipment room and one in the clean room of the personnel decontamination unit.

1.06 TOILET FACILITIES

A. Provide temporary toilet facilities to be used by contractor's employees. Location of toilet facilities shall be approved by owner.

1.07 PARKING

A. Park only in areas designated by the owner.

1.08 BUILDING SECURITY

A. Maintain personnel on-site at all times any portion of the work areas are open or not properly secured. Secure work areas completely at the end of each day.

1.09 STORAGE

A. Supply temporary storage required for storage of equipment and materials for duration of project. Trailer and storage dumpsters will be maintained in areas designated by the owner.

SECTION 01513

NEGATIVE PRESSURE SYSTEM

1.01 GENERAL

A. High efficiency particulate air (HEPA) filter exhaust systems equipped with new HEPA filters for each containment shall be used. Exhaust equipment and systems shall comply with ANSI Z9.2-79 and used according to manufacturer's recommendations.

B. A system of HEPA-equipped air filtration devices shall be configured so that a pressure differential is established between the work area and the surrounding area (-0.02 to -0.04" water column). A continuous chart-recorded manometer shall be used to confirm this condition.

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

D. The pressure differential is maintained at all times after preparation is complete and until the final visual inspection and air tests confirm the area is clean and acceptable for occupancy and the designer confirms verbally with written follow-up to discontinue the use of the negative pressure system.

E. Air shall be exhausted outside the building. Any variations must be approved by the designer. Locations of negative air exhaust shall be approved by owner and designer. Contractor shall install templates (5/8” fire rated plywood) for exhaust of negative air. Contractor is responsible for removal and replacement of windows required for negative air exhaust.

F. The contractor shall check daily for leaks and log his checks in the bound log book. This includes checks internal to air-moving devices.

G. There shall be a minimum of four air changes per hour in any containment.

SECTION 01526

WORK AREA PREPARATION

1.01 GENERAL

A. Before work begins in an area, a decontamination unit must be in operation as outlined in Section 01563.

B. Completely isolate the work area from other parts of the building so as to prevent contamination beyond the isolated area.

C. Temporary facilities shall be addressed as outlined in Section 01503.

Full Containment (Interior)

Spray-Applied Ceiling Texture
Asbestos-Containing Spline Ceiling Tiles
Asbestos-Containing Floor Tile and Associated Mastic
Asbestos-Containing Floor Tile Mastic
Thermal System Pipe Insulation
Asbestos-Containing Door Caulk

D. The contractor shall set up a work area, load out, and decontamination area as described in the specifications. Any variations must be approved by the designer. The decontamination facility outside of the work area shall consist of a change room, shower room and equipment room as described in Section 01563.

E. Critical Barriers: The contractor shall thoroughly seal (2-layers of 6-mil polyethylene sheeting) the work area for the duration of the work by completely sealing off all individual openings and fixtures in the work area, including, but not limited to, heating and ventilation ducts, doorways, corridors, windows, skylights and lighting, with polyethylene sheeting taped securely in place. If the contractor is using sealant materials to fill in small holes or cracks, the material shall have appropriate fire ratings.

F. The contractor shall wet clean and/or HEPA vacuum all items and equipment in the work area suspected of being contaminated with asbestos, but not in direct contact with the asbestos material and either secure these items in place with polyethylene sheeting or have them removed from the work area.

G. Floors: Where flooring does not exist for removal, apply two layers of 6 mil (minimum) polyethylene plastic sheeting with joints overlapped 24 inches and taped securely. Plastic shall be carried up walls a minimum of 12 inches and secured.

H. Walls: Apply two layers of 6 mil (minimum) polyethylene plastic sheeting with joints lapped 24 inches and taped securely. Plastic shall be lapped over floor (if applicable) coverings and taped securely (exclude wall scheduled for demolition).

I. Floors and walls shall be installed in such a manner that they may be removed independently of each other and the critical barriers.

J. Entrances and exits from the work area will have triple barriers of polyethelene plastic sheeting so that the work area is always closed off by one barrier when workers enter or exit.

K. No water may be left standing on the floor at the end of the work day.

L. Floor surfaces, walls, finishes or coverings, etc., that in the contractor's opinion will likely be damaged by water or that may become contaminated with asbestos, shall have additional protective preparation as the contractor sees appropriate, at his cost, to protect the original condition of the surfaces.

M. Any costs associated with physical damage caused by water or securing polyethylene sheeting to areas inside or outside the abatement area shall be the contractor's responsibility.

N. The contractor shall establish and mark emergency and fire exits from the work area. Emergency procedures shall have priority over established decontamination entry and exit procedures. Audible and visible fire and emergency evacuation alarms shall be installed so as to be heard and seen throughout the entire work area.

O. Integrity of these seals shall be regularly checked and maintained by the contractor.

P. After work area preparation, the contractor shall notify the designer verbally with written follow-up that he is ready for a prework inspection.

Glovebag Removal of Thermal System Insulation

A. The contractor shall isolate the work areas utilizing appropriate barrier tape and signage.

B. Contractor shall install 6-mil polyethylene sheeting on floors below areas of asbestos removal.

C. Entrances and exits from the work area will have triple barriers of polyethylene plastic sheeting so that the work area is always closed off by one barrier when workers enter or exit. Contractor shall affix appropriate signage to entrance/exit.

D. Contractor shall utilize local air filtration devices in areas where asbestos abatement is performed.

E. The contractor shall wet clean and/or HEPA vacuum all items and equipment in the work area suspected of being contaminated with asbestos, but not in direct contact with the asbestos material and either secure these items in place with polyethylene sheeting or have them removed from the work area.

F. No water may be left standing on the floor at the end of the work day.

G. Floor surfaces, walls, finishes or coverings, etc., that in the contractor's opinion will likely be damaged by water or that may become contaminated with asbestos, shall have additional protective preparation as the contractor sees appropriate, at his cost, to protect the original condition of the surfaces.

H. Any costs associated with physical damage caused by water or securing polyethylene sheeting to areas inside or outside the abatement area shall be the contractor's responsibility.

I. The contractor shall establish and mark emergency and fire exit from the work area. Emergency procedures shall have priority over established decontamination entry and exit procedures. Audible and visible fire and emergency evacuation alarms shall be installed so as to be heard and seen throughout the entire work area.

J. Integrity of these seals shall be regularly checked and maintained by the contractor.

K. After work area preparation, the contractor shall notify the designer verbally with written follow-up that he is ready for a prework inspection.

Non-Friable, Non-regulated Removal (Door Caulking and Window Glazing)

A. Asbestos abatement contractor shall isolate the work area utilizing appropriate barrier tape and signage.

B. Contractor shall install 6-mil polyethylene sheeting on floors/ground below areas of asbestos removal.

C. Contractor shall install 6-mil polyethylene sheeting on opposite side of the windows and doors scheduled to be removed.

D. Asbestos abatement contractor shall apply duct tape or equal to secure window glazing in place during window removal.

SECTION 01560

WORKER PROTECTION

1.01 GENERAL

A. Provide worker protection as required by OSHA, state and local standards applicable to the work. Contractor is solely responsible for enforcing worker protection requirements at least equal to those specified in this Section.

B. Each time the work area is entered the contractor shall require all persons to remove all street clothes in the changing room of the personnel decontamination unit and put on new disposable coverall, new head cover, and a clean respirator. Proceed through shower room to equipment room and put on work boots.

C. Workers shall not eat, drink, smoke, chew gum or chew tobacco in the work area, the equipment room, the load out area, or the clean room.

1.02 WORKER TRAINING

A. Train all workers in accordance with 29 CFR 1926 and North Carolina state regulations regarding the dangers inherent in handling asbestos, breathing asbestos dust, proper work procedures and personal and area protective measures.

1.03 MEDICAL EXAMINATIONS

A. Provide medical examinations for all workers. Examination shall as a minimum meet OSHA requirements as set forth in 29 CFR 1926 and N.C. Workmen's Compensation Act Dusty Trades Examination Record (DEHNR Form 2796).

1.04 PROTECTIVE CLOTHING

A. Provide disposable full-body coveralls and disposable head covers, and require that they be worn by all workers in the work area. Provide a sufficient number for all required changes, for all workers in the work area.

B. Boots: Provide work boots with non-skid soles and, where required by OSHA, foot protection for all workers.

C. Gloves: Provide work gloves to all workers and require that they be worn at the appropriate times. Do not remove gloves from work area. Dispose of work gloves as asbestos-contaminated waste at the completion of the project.

1.05 ADDITIONAL PROTECTIVE EQUIPMENT

A. Type C respirators, disposable coveralls, head covers and footwear covers shall be provided by the contractor for the owner, the designer, Industrial hygiene firm and other authorized representatives who may inspect the job site.

1.06 DECONTAMINATION PROCEDURES

A. Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the work area:

1. Remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the equipment room.

2. Still wearing respirators, proceed to showers. Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator to avoid asbestos fibers while showering. The following procedure is required as a minimum:

   a. Thoroughly wet body including hair and face.

   b. With respirator still in place thoroughly wash body, hair, respirator face piece, and all exterior parts of the respirator.

   c. Take a deep breath, hold it and/or exhale slowly, completely wet hair, face and respirator. While still holding breath, remove respirator and hold it away from face before starting to breathe.

   d. Carefully wash face piece of respirator inside and out.

   e. Shower completely with soap and water; rinse thoroughly.

   f. Rinse shower room walls and floor prior to exit.

   g. Proceed from shower to changing (clean) room and change into street clothes or new disposable work items.

3. After showering, each employee shall inspect, clean and repair his respirator as needed. The respirator shall be dried, placed in a suitable storage bag and properly stored.

SECTION 01562

RESPIRATORY PROTECTION

1.01 DESCRIPTION OF WORK

A. Instruct and train each worker involved in asbestos abatement in proper respirator use and require that each worker always wear a respirator, properly fitted on the face, in the work area from the start of any operation which may cause airborne asbestos fibers until the work area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the workplace or as required for other toxic or oxygen-deficient situations encountered.

1.02 GENERAL

A. Provide workers with personally issued and marked respiratory equipment approved by NIOSH and MSHA and suitable for the asbestos exposure level in the work areas according to OSHA Standard 29 CFR 1926.1101 and other possible contaminants employees might be exposed to during the project.

B. Provide respiratory protection from the time the first operation involved in the project requires contact with asbestos-containing materials (including construction of decontamination units, construction of airtight barriers/barricades, and placing of plastic sheeting on walls) until acceptance of final air clearance test results by the industrial hygiene firm.

C. The minimum respiratory protection for the project during gross removal of friable materials shall be a full-face powered air purifying respirator.

D. The designer may, under certain circumstances, allow the contractor to downgrade respiratory protection during the final cleaning phase. However, the eight-hour TWA air sampling data must document the exposure level, and the SAM must write a letter to the designer allowing the contractor to reduce respiratory protection.

E. Respirator fit testing shall be performed as a minimum at the beginning of the project, at any change in respiratory protection equipment, and at any time during the project if requested by the employee or SAM. Fit testing is to be performed by one of the methods listed in the 29 CFR 1926.1101, Appendix C.

F. If supplied air respirators are used, the contractor shall provide a minimum of Grade "D" breathing air as set forth in the Compressed Gas Association's "Commodity Specifications for Air," G-7.1. The contractor shall test for Grade "D" breathing air initially and daily thereafter. Daily testing is not needed if the contractor has an air purification system which has CO and organic purging capabilities as well as a continuous CO monitor and alarm calibrated at 10 ppm. The system must be calibrated at least once a week or when it is moved.

G. Provide emergency backup air supply, egress SCBA or egress HEPA filters for each worker in work area at all times when Type-C (supplied air) respirators are required. Breathing air system shall provide one hour of reserve air, calculated for maximum crew size for emergency evacuation.

H. Where Type C respirators are utilized, the contractor is required to have an employee in the vicinity of the source of air. The contractor shall take into account the location of the fresh air intake to ensure no pollutant source is in the vicinity. The audible alarm shall be located where the employees inside and outside containment can hear the alarm.

I. Do not allow the use of single-use, disposable or quarter-face respirators for any purpose.

J. The contractor may submit a new exposure assessment (as per 29 CFR 1926.1101) to the SAM with a request to downgrade to less protective respirators. The SAM will make a recommendation to the designer, who will issue a decision in writing to the contractor approving or denying his request. If the contractor disagrees with the decision, then the representative air sampling data may be reviewed by the HHCU for a final decision.

SECTION 01563

DECONTAMINATION UNITS

1.01 DESCRIPTION OF WORK

A. Provide separate personnel and equipment/loadout decontamination facilities. Require that the personnel 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/loadout decontamination unit. Contractor shall comply with 29 CFR 1926.1101, specifically paragraph (j) Hygiene facilities and practices for employees.

1.02 GENERAL

Provide separate personnel decontamination units and equipment/loadout decontamination units when practical. When personnel decontamination units and equipment / loadout decontamination units are located outside the building, the decontamination units shall be constructed inside a plywood shell. The plywood shell shall be constructed of UL-labeled, fire-treated lumber and plywood. 5/8" non-com ptd. MDO plywood on 3-5/8" non-com studs.

A. Personnel Decontamination Unit

1. Provide a Personnel Decontamination Unit consisting of a serial arrangement of connected rooms or spaces, changing room, shower room, equipment room. Each shall be separated by a minimum of three curtain doorways. 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. Do not remove equipment or materials through Personnel Decontamination Unit.

2. Provide temporary lighting within decontamination units as necessary to reach an adequate lighting level.

3. Maintain floor of changing room dry and clean at all times. Do not allow the overflow water from the shower to escape the shower room.

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

5. Provide hot and cold water, drainage and standard fixtures including an elevated shower head as necessary for a complete and operable shower. A water hose and bucket is not an acceptable shower.

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

7. Pump shower waste water to drain. Provide 20 micron and 5 micron waste water filters in line to drain. Change filters daily or more often if necessary.

8. If the decontamination area is located within an area containing friable asbestos on overhead ceilings, ducts, piping, etc., provide the area with a minimum 5/8 inch plywood "ceiling" with two layers of polyethylene sheeting covering the top of the "ceiling."

9. Visual Barrier: Where the decontamination area is immediately adjacent to and within view of occupied areas or the exterior of the building, provide a visual barrier of opaque plastic sheeting so that worker privacy is maintained and work procedures are not visible to building occupants. 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, max. 16 inches on center, covered with minimum 5/8 inch fire treated plywood.

10. Exterior decontamination units shall be constructed in a manner which accommodates the entrance to be locked at the end of shifts or when contractor is not on-site.

B. Equipment Decontamination Units:

1. Provide an equipment decontamination unit consisting of a serial arrangement of rooms, clean room, holding area, and washroom, each room separated by a minimum of three curtain doorways, for removal of equipment and material from work area. Do not allow personnel to enter or exit work area through equipment decontamination unit.

2. Washroom: Provide washroom for cleaning of bagged or drummed asbestos-containing waste materials passed from the work area.

3. Holding Area: Provide holding area as a drop location for sealed drums and bagged asbestos-containing materials passed from the washroom.

4. Clean Room: Provide clean room to isolate the holding area from the building exterior or occupied areas.

5. Equipment or Material: Obtain all equipment or material from the work area through the equipment decontamination unit according to the following procedure:

a. When passing contaminated equipment, sealed plastic bags, drums or containers into the washroom, close all doorways of the equipment decontamination unit, other than the doorway between the work area and the washroom. Keep all outside personnel clear of the equipment decontamination unit.

b. Once inside the washroom, wet-clean the bags and/or equipment.

c. When cleaning is complete, insert bagged material into a clean bag/drum during the pass between the washroom and holding area. Close all doorways except the doorway between the washroom and holding area.

d. Workers from the building exterior enter the clean room then the holding area to remove decontaminated equipment and/or containers for disposal. Require these workers to wear full protective clothing and respiratory protection as described in Section 01562.

C. Use of Elevator:

1. **Elevator not operational**

D. Decontamination Unit Contamination:

1. If the air quality in the decontamination unit exceeds 0.01 fibers per cc analyzed by PCM or 70 structures per mm squared analyzed by TEM or its integrity is diminished through use as determined by the designer or industrial hygiene firm, no employee shall use the unit until corrective steps are taken and approved by the designer and industrial hygiene firm.

SECTION 01711

PROJECT DECONTAMINATION

1.01 GENERAL

A. Carry out a first cleaning of all surfaces of the work area including plastic sheeting, tools, scaffolding and/or staging by use of damp-cleaning and mopping and/or a high efficiency particulate air (HEPA) filter vacuum until there is no visible debris from removed materials or residue on plastic sheeting or other surfaces. Do not perform dry-dusting or dry-sweeping.

B. Equipment shall be cleaned and all contaminated materials removed before removing polyethlene from the walls and floors.

C. The contractor shall replace all prefilters and clean the inside and outside of the HEPA exhaust units.

D. After polyethlene sheets have been removed from walls and floors, but are still remaining on all windows, doors and the critical components, the contractor shall clean all surfaces in the work area, including ducts, electrical conduits, steel beams, roof deck, etc., with amended water and/or HEPA-filtered vacuum.

E. After cleaning the work area, the contractor shall allow the area to thoroughly dry and then wet-clean and/or HEPA vacuum all surfaces in work area again.

F. At the completion of the cleaning operation, the contractor's supervisor shall perform a complete visual inspection of the work area to ensure that the work area is dust- and fiber-free. If the supervisor believes he is ready for a final project decontamination inspection, he shall notify the designer.

G. The designer shall contact the industrial hygiene firm and advise the firm of the final project decontamination inspection requested by the contractor. Work area clearance is described in section 01714.

H. Final project decontamination inspection includes the visual inspection and air monitoring clearance.

I. Visual inspection for acceptance shall be performed after all areas are dry.

J. The industrial hygiene firm shall perform the final visual inspection and conduct the final air clearance. Any discrepancies found shall be documented in the form of a punch list.

K. Final air sampling shall not commence until the visual inspection is completed and passed.

L. If the industrial hygiene firm or the designer finds that the work area has not been adequately decontaminated, cleaning and/or air monitoring shall be repeated at

the contractor’s expense, including additional industrial hygiene fees, until the work area is in compliance.

M. After the work area is found to be in compliance, all entrances and exits shall be unsealed and the plastic sheeting, tape and any other trash and debris shall be disposed of in sealable plastic bags (6 mil minimum) and disposed of as outlined in Section 02084.

N. Contractor shall remove all polyethylene sheeting, tape, and any trash or debris after hours or on weekends.

O. All HEPA unit intakes and exhausts shall be wrapped with six mil polyethlene before leaving the work area.

P. After the industrial hygiene firm has approved the final project decontamination and the contractor has completed the tear down for occupancy by others, the designer shall perform the project final inspection as outlined in the general conditions.

Q. Any residual asbestos that may be present after removing critical barriers, that in the designer’s judgment should have been cleaned during the precleaning phase prior to installing critical barriers, shall be cleaned and cleared at the contractor’s expense.

R. There shall be appropriate seals totally enclosing the inspection area to keep it separate from clean areas or other areas where abatement is or will be in progress. Once an area has been accepted and passed air tests, loss of the critical barrier integrity or escape of asbestos into an already clean area shall void previous acceptance and tests. Additional visual and final air clearance sampling shall be required at the contractor's expense.

SECTION 01714

WORK AREA CLEARANCE

1.01 GENERAL

A. Notification and scheduling of the final inspection during the project is the responsibility of the contractor.

1.02 FINAL CLEARANCE TESTING

A. After the second cleaning operation and after the area is completely dry, the following procedure test shall be performed:

1. A final visual inspection shall be conducted by the industrial hygiene firm. The inspection shall be conducted following the guidelines set forth in the American Society for Testing and Materials, Standard Practices for Visual Inspection of Asbestos Abatement Projects, Designation: E1368.90. If the work area is found visibly clean, air samples will be collected by the industrial hygiene firm.

2. During the air testing, the accredited air monitor shall cause disruptive air currents as described in the EPA-AHERA regulations (40 CFR Part 763, Subpart E, Appendix A).

3. Clearance samples analyzed by Phase Contrast Microscopy (PCM) (minimum of five samples using NIOSH 7400 Method). The maximum flow rate shall be 12 liters per minute, with a minimum sample size of 2000 liters for each sample. Clearance Criteria shall be less than 0.01 f/cc for all samples.

4. Clearance samples analyzed by Transmission Electron Microscopy (TEM), using the Mandatory Transmission Electron Microscopy Method described in 40 CFR Part 763, Subpart E, Appendix F. Clearance criteria shall be an arithmetic mean less than or equal to 70 structures per square millimeter or a z-test less than or equal to 1.65. Clearance sample turn around shall be 24 hours after TEM samples are collected.

Work Area	Clearance Criteria
Interior - Full Containment	TEM
Glovebag Removal	TEM
Exterior – Nonfriable, Nonregulated door caulking/roofing	Visual

5. The industrial hygiene firm shall immediately report the final air sampling clearance results to the designer.

6. The use of the negative pressure system may be discontinued after the industrial hygiene firm instructs the contractor that he has passed the final project decontamination inspection.

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SECTION 02080

ASBESTOS REMOVAL

1.01 GENERAL

A. Prior to starting asbestos removal, the contractor's equipment, work area and decontamination units will be inspected and approved by the designer.

B. All loose asbestos material removed in the work area shall be adequately wet, bagged, sealed and labeled properly before personnel breaks or end of shift.

C. All plastic sheeting, tape, cleaning material, clothing and all other disposable material or items used in the work area shall be packed into sealable plastic bags (6 mil minimum) and treated as contaminated material.

D. All material shall be double-bagged.

E. All excess water (except shower water) shall be combined with removed material or other absorptive material and properly disposed of as per EPA regulations. Contractor shall not place water in storm drains, onto lawns, or into ditches, creeks, streams, rivers or oceans.

Lead-Based Paint

Lead-based painted components identified in the Limited XRF Lead-Based Paint Survey Report Dated March 24, 2024, may be disturbed during the course of asbestos abatement operations. Personnel performing renovation or demolition activities that may disturb the painted surfaces that contain any quantity of lead should comply with all current OSHA regulations (OSHA Lead in Construction Standard 29 CFR 1926.62) in order to minimize employee exposure to lead.

PCB's

PCB in excess of 50 ppm were found in exterior door caulk, exterior window caulk, exterior vent caulk, interior door caulk and interior duct mastic. PCB less than 50 ppm were found in interior block filler/paint, glue/mastic on duct insulation, and window glazing. Please see attached PCB Remediation Plan.

1.02. SCOPE OF WORK

A. The scope of work includes the removal and disposal of asbestos-containing spray applied texture from concrete beams and ceilings, floor tile, floor tile mastic, ceiling tiles, transite pipe, thermal system pipe insulation and roof drain insulation, utilizing full containments where shown on the accompanying drawings.

B. Scope of work also includes the removal of asbestos-containing chalk board mastic, cork board mastic, door caulking, window caulking, roof flashing mastic and roof curb mastic utilizing nonfriable, nonregulated removal techniques.

C. Estimated quantities of asbestos-containing materials scheduled for removal and disposal throughout the building are listed below:

Spray Applied Ceiling Texture 20,105 Square Feet

Floor Tile and Floor Tile Mastic 27,300 Square Feet

12”x12” Spline Ceiling Tiles 33,000 Square Feet

Cementitious Pipe 100 Linear Feet

Thermal System Pipe Insulation and Fittings 2,000 Linear Feet

Drain Line Insulation 500 Linear Feet

Chalk Board Mastic 500 Square Feet

Interior Door Caulk 202 Door Frames

Sink Mastic 7 Sinks

Exterior Roof Flashing Mastic and Curbing Mastic – 100 Square Feet

Exterior Window/Door Caulk - 2 Front Entry Store Fronts

Exterior Window Glazing – South Tower Windows

PCB Storefront Caulk - 2 Exterior Front Entry Store Fronts

PCB Storefront Caulk – 4 Exterior Rear Door Complexes

PCB Window Caulk – South Tower Windows

PCB Vent Caulk – 6 Exterior Vents

PCB Door Caulk – 202 Interior Doors

PCB Block Walls – 50,000 Square Feet

PCB Duct Insulation – 7,500 Square Feet

1.03 ACM PRODUCTS TO BE REMOVED

A. Interior – Full Negative Pressure Enclosure.

1. Spray asbestos-containing materials with a fine mist of amended water prior to removal procedures. Do not over saturate to cause excess pooling. Mist asbestos-containing materials continuously during the removal process.

2. Contractor shall carefully remove manageable sections of asbestos-containing materials and place it directly into bags for disposal. Do not allow asbestos debris to accumulate on floor.

3. Contractor shall continue misting asbestos-containing materials with amended water throughout the removal process.

4. Where asbestos-containing spray-applied ceiling texture is removed, contractor remove ductwork, fixtures, conduit, etc. to allow access to materials for complete removal.

5. Demolition debris created to access asbestos-containing pipe insulation in chases shall be disposed of as asbestos-contaminated debris.

6. Carpet/laminate with asbestos-containing floor tile mastic adhered shall be disposed of as asbestos-contaminated material.

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7. Contractor shall use a low to no odor solvent to remove asbestos-containing floor tile mastic

8. Clean work area as required by section 01711.

B. Asbestos-Containing Thermal System Insulation (Glovebag Removal)

1. Prior to start of work, the contractor shall regulate the work area with barrier tape and post asbestos signs in each appropriate language as per the OSHA 29 CFR 1926.1101 standard.

2. Place 6 mil polyethylene drop cloth beneath pipes scheduled for abatement.

3. Use two people for glovebag operations. One shall remove the insulation, the other operate the water sprayer.

4. Secure glovebag air tight to pipe insulation with tools and wand inside glovebag. Spray pipe insulation with mist of amended water. Allow amended water to saturate material to substrate. Cut bands holding preformed pipe insulation, slit jackets at seams, remove insulation and

hand place in glovebag. Take care not to puncture the bag while cutting the insulation.

5. After removal of insulation, brush and wet clean pipe to remove residual material. Continue wet cleaning until surfaces are free of visible material.

6. Spray all tools with water inside the bag and place back in pouch. Duct tape visible ends of remaining pipe insulation.

7. Spray the inside of the glovebag with amended water and remove the watering wand, taping the water sleeve closed.

8. Collapse the glovebag with HEPA vacuum, gooseneck glovebag with duct tape and cut glovebag away from pipe.

9. Wet lag any exposed pipe insulation.

C. Nonfriable, Nonregulated Removal of Door Caulking, Window Glazing, Wall Glue and Roof Flashing Mastic

1. Asbestos abatement contractor shall isolate the work area utilizing appropriate barrier tape and signage.

2. Contractor shall install 6-mil polyethylene sheeting on ground at the foundation of the structure and interior floor. Drop cloth sheeting shall cover a sufficient area to keep debris from window removal from coming in contact with the soil or interior floors.

3. Remove materials using manual tools and wet methods.

4. Following removal, asbestos abatement contractor shall immediately wrap and label doors and waste for appropriate disposal.

5. Contractor shall clean work areas in preparation for final visual inspection.

SECTION 02084

DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

1.01 GENERAL

A. All asbestos materials and miscellaneous asbestos contaminated debris shall be properly sealed and protected, and the loadout vehicle/dumpster shall be locked, while located on the facility site and then transported to a predesignated disposal site in accordance with 40 CFR 61.150 and DOT 49 CFR Parts 100-399.

B. An enclosed vehicle will be used to haul waste material to the disposal site. No rental vehicles or trailers shall be used. Vehicle selection, vehicle covers and work practices shall assure that no asbestos becomes airborne during the loading, transport and unloading activity, and that material is placed in the waste site without breaking any seals.

C. Waste disposal polyethylene bags (6 mil) and containers, non-porous (steel/plastic) drums or equivalent, with labels, appropriate for storing asbestos waste during transportation to the disposal site shall be used. In addition to the OSHA labeling requirements, all containers shall be labeled with the name of the waste generator and the location at which the waste was generated.

D. The contractor shall transport the containers and bags of waste material to the approved waste disposal site. The sealed plastic bags shall be placed into the burial site unless the bags have been broken or damaged. Upon the landfill's approval damaged bags shall be left in the non-porous containers and the entire contaminated package shall be buried. Uncontaminated containers may be reused.

E. Workers loading and unloading the asbestos will wear respirators and disposable clothing when handling material. Asbestos warning signs shall be posted during loading and unloading of asbestos waste.

F. The contractor shall use the HHCU's Waste Shipment Record for disposal records as per 40 CFR 61.150 and distribute a copy of all waste shipment records to the designer and the HHCU after the completion of the project.

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APPENDIX A

PREWORK ASBESTOS INSPECTION CHECKLIST

Name of State Facility: _____

Project Name: _____

Project ID Number: _____

Date of Inspection: _____ Pass: _____ Fail: _____

			YES	NO
A.	**DOCUMENTS**			
	1)	Asbestos Removal Permit/NESHAP Notification	_____	_____
	2)	Accreditation Documents for Workers & Supervisors	_____	_____
	3)	Asbestos Plans and Specifications	_____	_____
	4)	Air Monitoring Data	_____	_____
	5)	Waste Shipment Records	_____	_____
	6)	Sign-in Sheets and Bound Book for Comments	_____	_____
	7)	Calibration Record for Grade “D” Air	_____	_____
	8)	Items listed in Section 01043 of Specification	_____	_____
B.	**PPE SUPPLIES**			
	1)	Tyvek Clothing	_____	_____
	2)	Rubber Boots	_____	_____
	3)	Respirators with HEPA Filters	_____	_____
C.	**CLEAN ROOM**			
	1)	Entry Curtains	_____	_____
	2)	Emergency Phone Numbers Posted	_____	_____
	3)	First Aid Kit	_____	_____
	4)	Asbestos Signs	_____	_____
	5)	Decontamination Procedures Posted	_____	_____
	6)	Fire Extinguisher	_____	_____
D.	**SHOWER ROOM**			
	1)	Polyethlene Curtains	_____	_____
	2)	Hot/Cold Water & Operational	_____	_____
	3)	Soap & Towels	_____	_____
	4)	Waste Water Filter Pump Operational	_____	_____
	5)	Extra Five Micron Size Filters	_____	_____
	6)	Filtered Waste Water to Sanitary Sewer	_____	_____

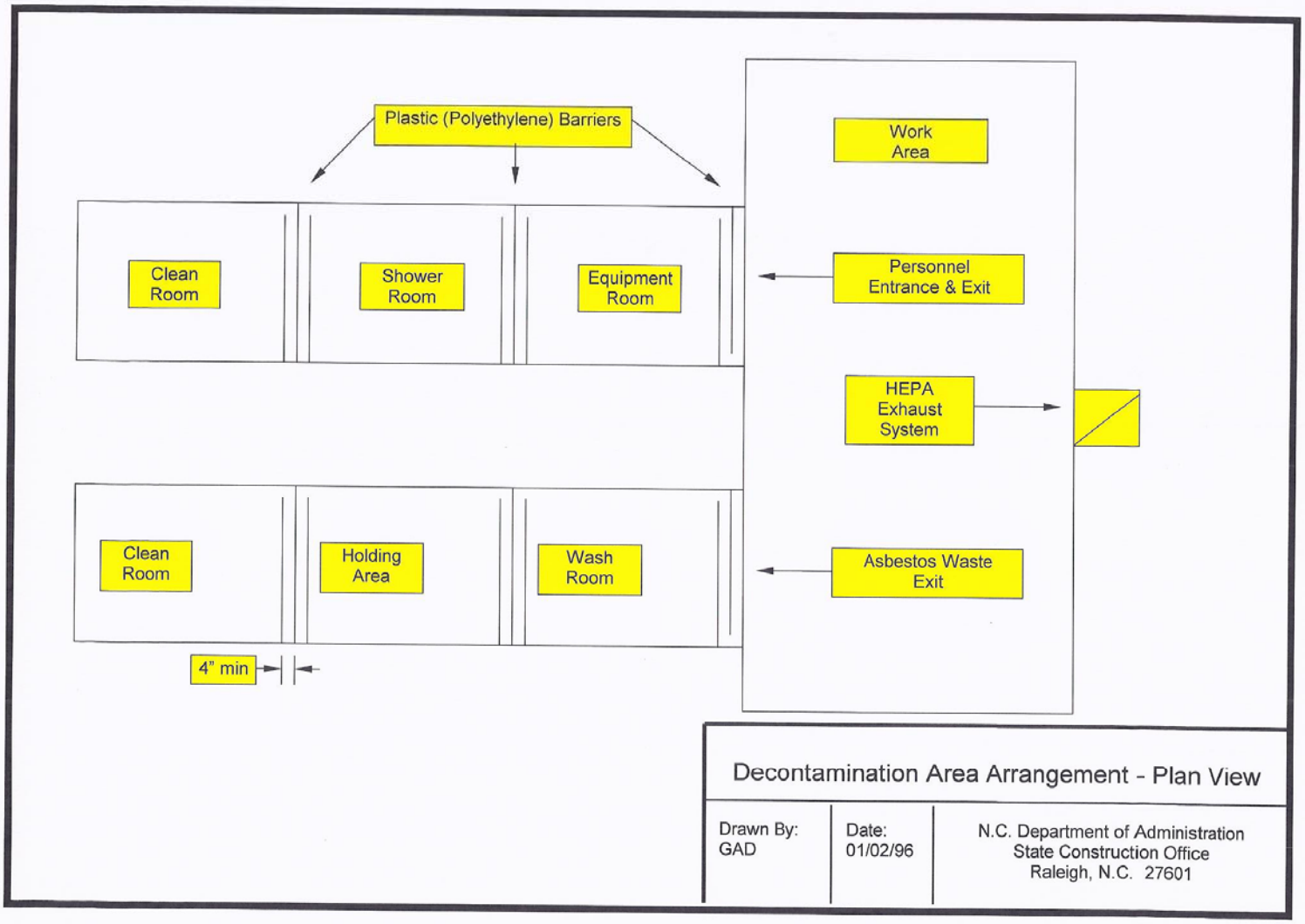
			YES	NO
E.	**WORK AREA**			
	1)	Removable Items Out of Area	_____	_____
	2)	Non-removable Items Protected	_____	_____
	3)	Critical Barriers Installed	_____	_____
	4)	Polyethlene Curtains	_____	_____
	5)	Polyethlene on Walls/Floors as Specified	_____	_____
	6)	HVAC off	_____	_____
	7)	Air Filtration Devices in Place and Operational	_____	_____
	8)	Air Exhausted to Outside	_____	_____
	9)	Electricity Locked and Tagged Out	_____	_____
	10)	Temporary Power Installed with GFCI	_____	_____
	11)	Fire Extinguishers	_____	_____
	12)	Emergency and Fire Exits Marked	_____	_____
	13)	Audible Alarms Operational	_____	_____
	14)	Toilet Available	_____	_____
F.	**EQUIPMENT**			
	1)	Safety Equipment	_____	_____
	2)	HEPA Vacuums	_____	_____
	3)	Waste Disposal Bags	_____	_____
	4)	Airless Sprayer with Water Source	_____	_____
	5)	Cleaning Equipment	_____	_____
	6)	Glove Bags	_____	_____
	7)	Emergency Power Generator (if required)	_____	_____
	8)	Temporary Lighting	_____	_____
G.	**OTHER**			
	1)	_____	_____	_____
	2)	_____	_____	_____
	3)	_____	_____	_____
	4)	_____	_____	_____

_____ _____

Asbestos Design Consultant *Date*

_____ _____

Asbestos Contractor's Representative *Date*


Plastic (Polyethylene) Barriers
Work Area
Clean Room
Shower Room
Equipment Room
Personnel Entrance & Exit
HEPA Exhaust System
Clean Room
Holding Area
Wash Room
Asbestos Waste Exit
4" min
Decontamination Area Arrangement - Plan View
Drawn By: GAD
Date: 01/02/96
N.C. Department of Administration
State Construction Office
Raleigh, N.C. 27601

North Carolina State University

TECHNICAL SPECIFICATIONS FOR POLYCHLORINATED BIPHENYLS (PCB) BULK PRODUCT REMOVAL

MANN HALL

For Construction
November 13, 2024

MATRIX HEALTH & SAFETY CONSULTANTS, LLC.
GREGG E. HEPPERT

TECHNICAL SPECIFICATIONS FOR POLYCHLORINATED BIPHENYLS (PCB) BULK PRODUCT REMOVAL
North Carolina State University – Mann Hall Complete Renovation
Raleigh, North Carolina

Summary

This project consists of the removal and disposal of polychlorinated biphenyl (PCB)containing interior door caulking, duct mastic on fiberglass (interior and exterior of duct), exterior door caulking, exterior storefront caulking, exterior tower window caulking, exterior vent caulking, and block filler coating/paint as part of the Mann Hall complete renovation.

Disturbance or dislocation of PCB containing caulking materials may cause a health hazard to workers and building occupants. The remediation contractor shall inform all workers, supervisory personnel, subcontractors and consultants at the job site of the hazard and proper work procedures which must be followed.

Where remediation contractors, including supervisory personnel, subcontractors, or consultants may encounter, disturb, or otherwise function in the immediate vicinity of PCB containing caulking materials, appropriate measures shall be taken to protect all building occupants from the hazard of exposure. Such measures shall include the procedures and methods described herein, regulations of the US Occupational Safety & Health Administration (OSHA), US Environmental Protection Agency (EPA), and the State of North Carolina.

PCB Summary

PCB SURVEY RESULTS (Refer to Attached Report Dated September 7, 2021)

Sample Number	Material Description	General Location	PCB Quantity Mg/kg (ppm)
MH-1	**Exterior Door Caulk** **Bulk Product Waste**	**South and West**	**180,000 (Aroclor-1254)**
MH-6	**Exterior Storefront Caulk** **Bulk Product Waste** **Storefront Caulk is also an asbestos-containing material**	**North**	**47,000 (Aroclor-1254)**

Method EPA SW 846 8082A
Bold type Indicates Hazardous Material According to EPA (> 50 ppm)

PCB SURVEY RESULTS (Refer to attached PCB Lab Reports for samples collected on October 8, 2024)

Sample Number	Material Description	General Location	PCB Quantity Mg/kg (ppm)
MH-1,2,3	**Exterior Duct Mastic/Glue** **PCB Bulk Product Waste**	**Throughout Building**	**14-27 (Aroclor-1248)** **14-57 (Aroclor-1254)** **1.4-94 (Aroclor-1260)** **260 (Aroclor-1268)**
MH-4,5,6	Interior Block Filler/Paint on Cinderblock and Plaster PCB-Containing	Throughout Building	0.45-6.0 (Aroclor-1248) 0.84-9.2 (Aroclor-1254) 0.090-1.2 (Aroclor-1260
MH-7	**Interior Tan Door Caulk** **PCB Bulk Product Waste** **Also Contains Asbestos**	**Throughout Building**	**940 (Aroclor-1248)** **220 (Aroclor-1254)**
MH-8	**Interior Gray Door Caulk** **PCB Bulk Product Waste**	**Throughout Building**	**560 (Aroclor-1248)** **140 (Aroclor-1254)**
MH-9	**Interior White Door Caulk** **PCB Bulk Product Waste**	**Throughout Building**	**32 (Aroclor-1248)** **21 (Aroclor-1254)**
MH-10	Interior Internally Line Duct Mastic/Glue PCB-Containing	Throughout Building	0.64 (Aroclor-1248) 2.7 (Aroclor-1254)
MH-11	**Exterior Window Caulk** **PCB Bulk Product Waste**	**Exterior – South Tower Metal Windows**	**15,000 (Aroclor-1248)** **31,000 (Aroclor-1254)**

PCB SURVEY RESULTS (Refer to Additional PCB Lab Reports from samples collected October 8, 2024)

Sample Number	Material Description	General Location	PCB Quantity Mg/kg (ppm)
MH-12	Exterior Window Glazing PCB-Containing Also Contains Asbestos	Exterior – South Tower Metal Windows	1.7 (Aroclor-1248) 7.5 (Aroclor-1254)
MH-13	**Exterior Vent Caulk** **PCB Bulk Product Waste**	**Exterior – Lower Roof Courtyard East Facing Wall**	**34,000 (Aroclor-1254)**
MH-14	**Exterior Brick Adjacent to Door Caulking** **PCB Remediation Waste**	**Exterior – Southeast Door, Left**	**2.3 (Aroclor-1248)** **23 (Aroclor-1254)**
MH-15	**Exterior Brick Adjacent to Door Caulking** **PCB Remediation Waste**	**Exterior – Southeast Door, Right**	**2.9 (Aroclor-1248)** **6.2 (Aroclor-1254)**

PCB-containing caulk and glue, for example, are considered *PCB bulk product waste* if the concentration of PCBs in the caulk or glue is greater than or equal to (≥) 50 parts per million (ppm). PCB bulk product waste, even at concentrations of PCBs greater than 50 ppm, can be disposed in a non-hazardous solid waste facility, as long as this disposal is permitted by that facility and approval is granted. Substrate PCB Remediation waste materials, such as brick, cinderblock or plaster, located adjacent to PCB bulk product, may also be disposed of as PCB bulk product waste, as long as the substrates are removed with the caulk and glue at the time of the project.

PCB WIPE RESULTS (Refer to Additional PCB Lab Reports from samples collected October 8, 2024)

Sample Number	Wipe Description	General Location	PCB Quantity ug/100cm2 (ppm)
MHW-1	Interior of Supply Duct Non-Insulation	First Floor (Basement) Pit	.45 (Aroclor-1248) .62 (Aroclor-1254) .24 (Aroclor-1260)
MHW-2	Interior of Supply Duct Non-Insulation	Room 306	.3 (Aroclor-1248) 1.2 (Aroclor-1254) .55 (Aroclor-1260)
MHW-3	Interior of Supply Duct Internally Lined	Room 306	.15 (Aroclor-1254) .094 (Aroclor-1260)
MHW-4	Interior of Supply Duct Non-Insulation	Room 207	1.4 (Aroclor-1248) .38 (Aroclor-1254)

The laboratory results indicated that all wipes collected inside the duct work were <10 ug/100cm2, which is below the clearance standard for this project.

Scope of Work

These specifications are to be used in conjunction with any drawings, specifications or supplemental specifications for this project. Copies are to be maintained at the job site at all times.

Asbestos abatement and PCB removal shall be performed concurrently by North Carolina Accredited supervisors and workers.

The remediation contractor shall verify all job conditions and all material quantities prior to bid submission. All quantities listed by the designer are

approximations only. The remediation contractor is responsible for confirming all quantities of PCB material prior to bidding.

The remediation contractor shall maintain the building envelope in a watertight and weather tight condition at all times.

Scope of Work

The scope of work consists of the removal and disposal of **4 exterior metal door complexes, 2 front storefront door/window complexes, 6 exterior vents, 24 exterior window complexes at exterior south tower, 202 interior door frames, 50,000 sf of block filler on interior walls and 7,500 sf of glue/mastic on duct insulation** with polychlorinated biphenyl (PCB's). Please note that the storefront caulking, interior door caulking and window glazing is asbestos-containing. Caulking may be removed and disposed of intact by removing the entire door or window complex and surround substrates with caulk attached. If surrounding substrates are not scheduled for demolition, caulking shall be removed from adjacent brick and concrete (inside and outside of building) until no visible debris is present. Metal door and window framing shall be cleaned with appropriate detergent and organic solvent prior to disposal or disposed of with the caulk attached.

If the brick/concrete surrounding door, window, and vent openings are not scheduled for demolition, the openings shall be cleaned with appropriate detergent and organic solvent. Once cleaned, the opening shall be sealed with two coats of waterproof epoxy covering the face of the openings to serve as an encapsulant over the porous concrete and brick.

The scope of work also includes the removal and disposal of exterior duct insulation with PBC mastic/glue found throughout the building.

The scope of work also includes the demolition of cinderblock and plaster walls with PCB block filler/paint.

Asbestos abatement and PCB removal operations will be performed together within full negative pressure containments.

The remediation contractor will package waste in approved containers and dispose of materials in a solid waste facility that with accept PCB bulk product waste.

Minimum Work Requirements

1. All work shall be performed in accordance with all applicable federal, state, and local regulations.

2. The remediation contractor shall be a licensed general remediation contractor in either the specialty interior, building unclassified or asbestos categories by the North Carolina Licensing Board of General Remediation contractors and limited for the bid amount.

3. The remediation contractor shall furnish and is responsible for all costs including, but not limited to: permit fees, containment preparation, labor, materials, services, insurance, bonding, and equipment necessary to carry out the abatement operations and disposal of all PCB containing material in

accordance with the specifications, the EPA and OSHA regulations, and any applicable state and local government regulations.

4. All supervisors and workers shall have experience in the abatement of PCB containing materials and decontamination of PCB's in order to achieve clearance. Hazard Communication training for PCBs that, at a minimum, meets the requirements of 29 CFR 1910.1200 and the importance of minimizing worker exposure (both inhalation and skin exposure).

All workers and supervisors shall be accredited by the North Carolina Health Hazards Control Unit (HHCU). A competent person, as defined by OSHA asbestos standard 29 CFR 1926.1101, shall be on-site at all times during asbestos abatement.

5. The doors contain lead ranging from 0.1 mg/cm2 to 0.7 mg/cm2. Personnel performing renovation activities that disturb the painted surfaces or leaded components that contain any quantity of lead should comply with all current OSHA regulations (**OSHA Lead in Construction Standard 29 CFR 1926.62**) in order to minimize employee exposure to lead.

6. The remediation contractor shall be responsible for all costs associated with employee monitoring to meet OSHA standards.

7. The remediation contractor shall have at least one employee on the job site in either a foreman or supervisor's position who is bilingual in the appropriate languages when employing workers who do not speak fluent English.

8. The remediation contractor is responsible for the behavior of workers within his employment. If at any time during the contracted work, any of his employees are judged to exhibit behavior unfitting for the area or judged to be a nuisance by the owner or designer, the remediation contractor shall remove them immediately from the project.

9. The remediation contractor shall be responsible for compliance with the following concerning employee behavior:

a. Under no circumstances is alcohol, drugs or any other type of controlled substances permitted on state property.

b. All workers are restricted to the construction project site only.

c. All vehicles must be parked in areas prearranged with the owner.

d. All workers must conform to the following basic dress code when in public areas of the project confines: long pants, shirts, no tank tops, no shorts, no bare backs.

e. The remediation contractor is responsible for disposal of all trash brought on state property by his employees, including drink cans, bottles or other food containers and wrappers.

10. Failure to adhere to these rules could result in criminal prosecution and/or removal from the State property.

11. PREBID

1. A pre-bid conference will be held by the owner in conjunction with the asbestos abatement project.

2. The designer will review the plans and specifications and present required techniques and safeguards for the removal of the PCB caulking.

3. Any minutes, new points or clarifications raised during the meeting will be issued by the designer prior to bids.

12. PRE-JOB SUBMITTALS

A. Submit three complete, bound sets of pre-job submittals to the designer at least 10 days prior to start of work. Work is prohibited until submittal package has been reviewed and approved by designer. A copy of the approved submittals shall be kept in a three-ring binder (project log) by the remediation contractor at the project site in the clean room or in the on-site office of the remediation contractor.

1. Employee List: Provide copies of lists of supervisors and workers, along with their PCB work experience and PCB HazCom training to be utilized on the project. Provide copies of lists of North Carolina Accredited supervisors and workers, along with their accreditation, to be utilized on the project.

2. Medical: Include individually signed and notarized forms by each worker to be utilized on the project documenting that each is actively involved in a company employee medical surveillance program.

3. Respirator Training: Copies of most recent fit testing records, individually signed for each worker to be utilized on the project.

4. Submit plan detailing measures that will be taken to re-route pedestrian traffic during door removal to ensure the safety of students, faculty and visitors.

13. POST-JOB SUBMITTALS

A. Submit three complete, bound sets of post-job submittals to the designer following the final completion of the work. Requests for final payment will not be approved until the submittal package has been reviewed and approved by the designer.

1. Affidavits: Remediation contractor’s affidavit of payment of debts and claims, affidavit of release of liens, and consent of surety company to final payment.

2. Daily Log: A notarized copy of all daily logs showing the following: name, date, entering and leaving time, company or agency represented, reason for entry for all persons entering the work area, employee's daily air monitoring data as required by the OSHA standard and written comments by inspectors, industrial hygienists, designers and visitors.

3. Permits: Provide copies of approval of a waste disposal site in compliance with 40 CFR 61.154.

4. Special Reports: All documents generated under Section 01043.1.06.

14. The remediation contractor shall be trained in the proper use of PPE during PCB removal and cleanup operations. Remediation contractor shall wear appropriate PPE during All PCB containing caulk removal activities, including but not limited to chemical resistant gloves, chemical resistant full body protective coveralls and proper respiratory protection for the hazards to be encountered.

15. Remediation contractor shall provide a Health and Safety Plan specific to the work activities. All workers will follow applicable Federal and State regulations regarding work activities, including but not limited to OSHA regulations (PCB personnel air monitoring), respiratory protection, fall protection standards, ladder safety, personal protective equipment, etc.

16. Records and documents per 40CFR 761 will be generated and maintained at one location and made available to the EPA, Designer or Owner upon request.

WORK AREA PREPERATION

1. Work shall be performed inside full containments during asbestos abatement activities. For exterior work, the remediation contractor shall isolate each door, window and vent with 2 layers of 6 mil polyethylene sheeting secured in place. The remediation contractor shall isolate the work area with appropriate barrier tape and signage. The remediation contractor shall install 1 layer of 6-mil polyethylene sheeting on floors/ground below the component scheduled for removal to prevent contamination of interior building surfaces and to collect any debris that may fall during removal operations.

PCB CAULK REMOVAL

1. Abatement remediation contractor shall remove door units, window units, duct insulation and vents in their entirety from the rough opening and remove surrounding brick/concrete substrates, when feasible and only after approval by the owner. If brick/concrete substrates are scheduled to remain, thoroughly scrape all caulk/sealant using manual tools from the rough building opening substrates. PCB’s shall be wetted using a low-pressure sprayer, using amended water with a wetting agent/surfactant containing fifty percent polyoxyethylene ether and fifty percent polyoxyethylene ester, or equivalent, mixed one ounce to five gallons of water. High efficiency particulate air (HEPA) filtered vacuums shall be used to clean dust and debris during PCB abatement operations.

2. Following removal of caulking from the adjacent concrete and brick substrates, clean flooring using a double wash/rinse using an appropriate solvent. The remediation contractor shall take all precautions necessary to contain runoff resulting from cleaning and to properly dispose of wastes generated during cleaning.

3. A DOT approved container shall be staged for the collection of PCB bulk product and associated wastes generated during the work activities in accordance

with 40CFR 761.65. Remediation contractor shall properly label and mark waste container in accordance with 40CFR 761.40.

4. Remediation contractor shall contact industrial hygiene firm for scheduling the final visual inspection.

FINAL CLEARANCE

1. A final visual inspection shall be conducted by the industrial hygiene firm prior to disposal of door frames, window frames, duct mastic, vent mastic and sealing of rough openings with epoxy.

2. Wipe clearance sampling will be conducted on randomly selected floors following successful visual inspection and adequate drying times. Wipes will be collected from the work areas per EPA 40 CFR 761 Subpart O and Subpart M and extracted /analyzed using EPA Methods SW-846 3550C/8082A.

The clearance criteria for floors will be <10 ug/100cm2. The subject area is considered sufficiently decontaminated if conducted in accordance with 40 CFR 761.79. If the standard of <10µg/100 cm2 is not met for all of the wipe samples, additional decontamination procedures must be performed within the entire subject area and additional wipe samples must be collected. These procedures will be repeated until the <10µg/100 cm2 standard has been achieved. Fees for failed wipe tests are the responsibility of the remediation contractor.

DISPOSAL OF PCB BULK PRODUCT WASTE MATERIAL AND ASBESTOS-CONTAINING CAULKING

1. All PCB containing caulking, caulking debris and associated wastes (suits, cleaning supplies, etc.) and asbestos-containing caulking will be designated for disposal as PCB Bulk Product Waste in accordance with 40CFR 761.62 of TSCA.

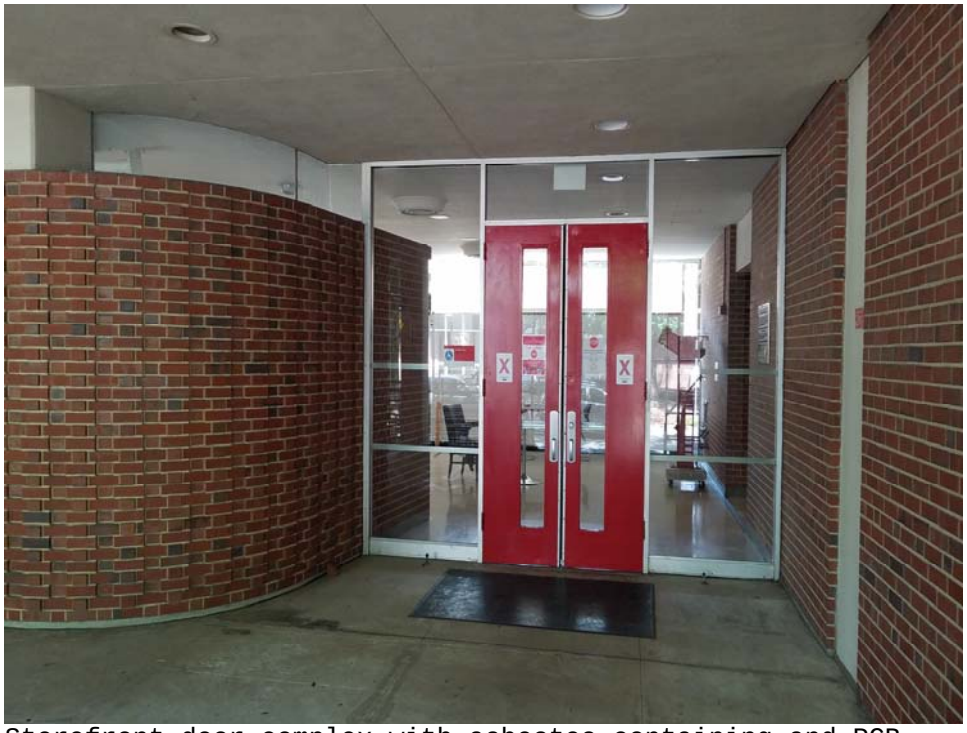
2. All containers will be properly labeled and marked in accordance with 40CFR 761.40. Containers shall also be marked with asbestos labels. All regulated waste containers will be stored in a secure area on-site until transfer to an approved solid waste facility that will accept both asbestos and PCB bulk waste.

3. The remediation contractor shall be responsible for all packaging, labeling and record keeping associated with PCB/Asbestos waste in accordance with all federal, state and local regulations.

4. Remediation contractor shall assure that disposal of PCB bulk waste is at a facility approved to accept such waste and shall provide to the Owner and designer a tracking/manifest form signed by the landfill’s owner.

Matrix Health & Safety Consultants, LLC

Gregg E. Heppert
Project Principal

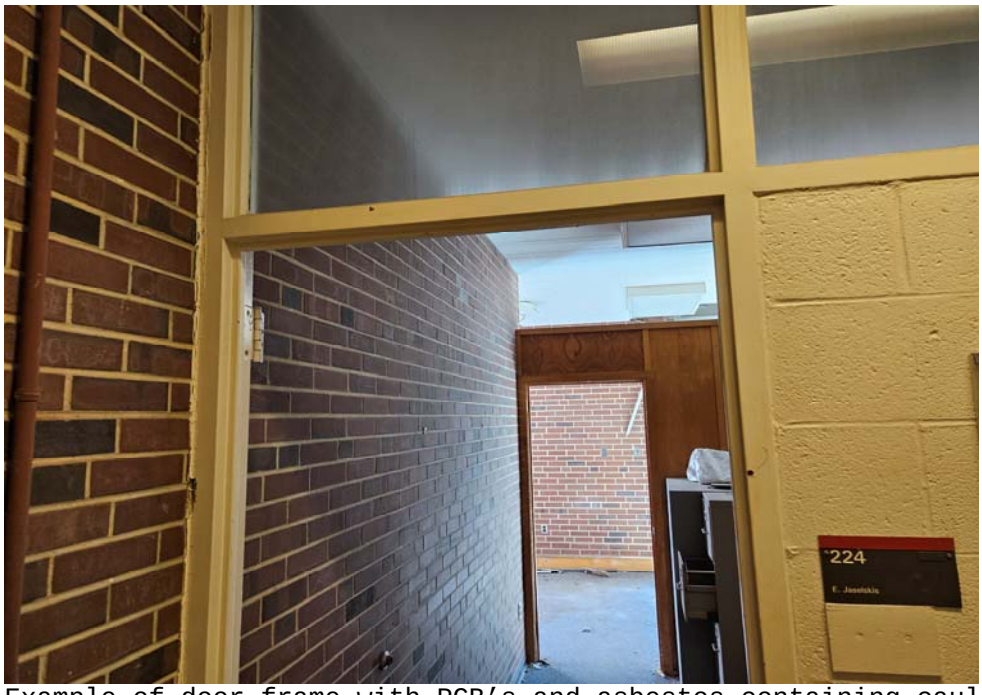


Storefront door complex with asbestos-containing and PCB containing caulk

Storefront door complex with asbestos-containing and PCB containing caulk

Example of exterior of door with PCB containing caulk

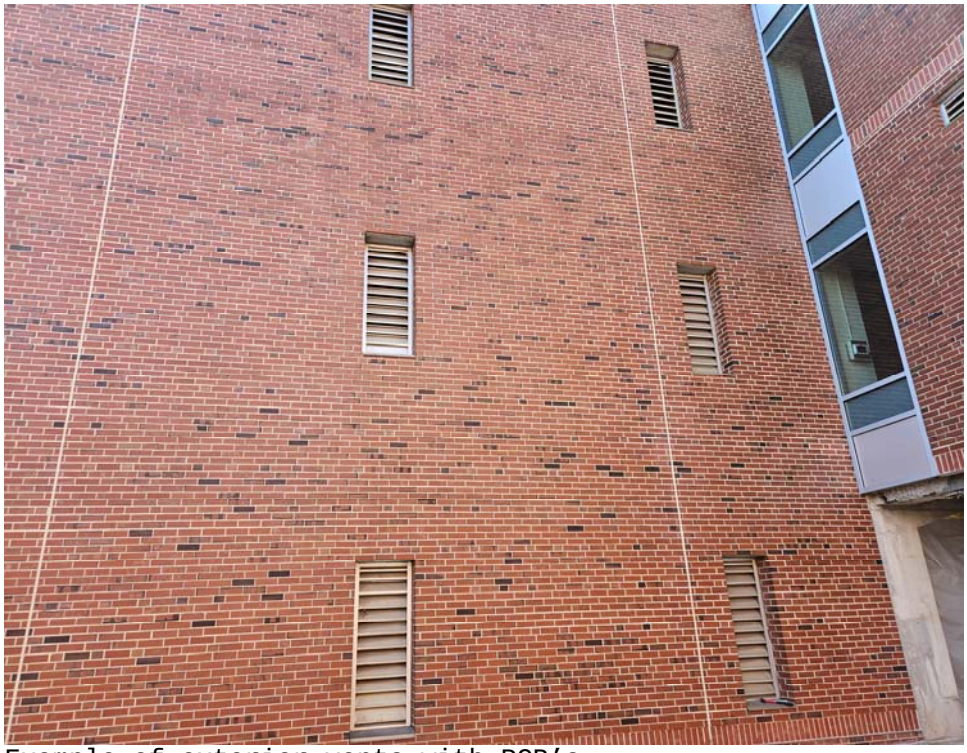
Example of duct with PCB containing mastic/glue



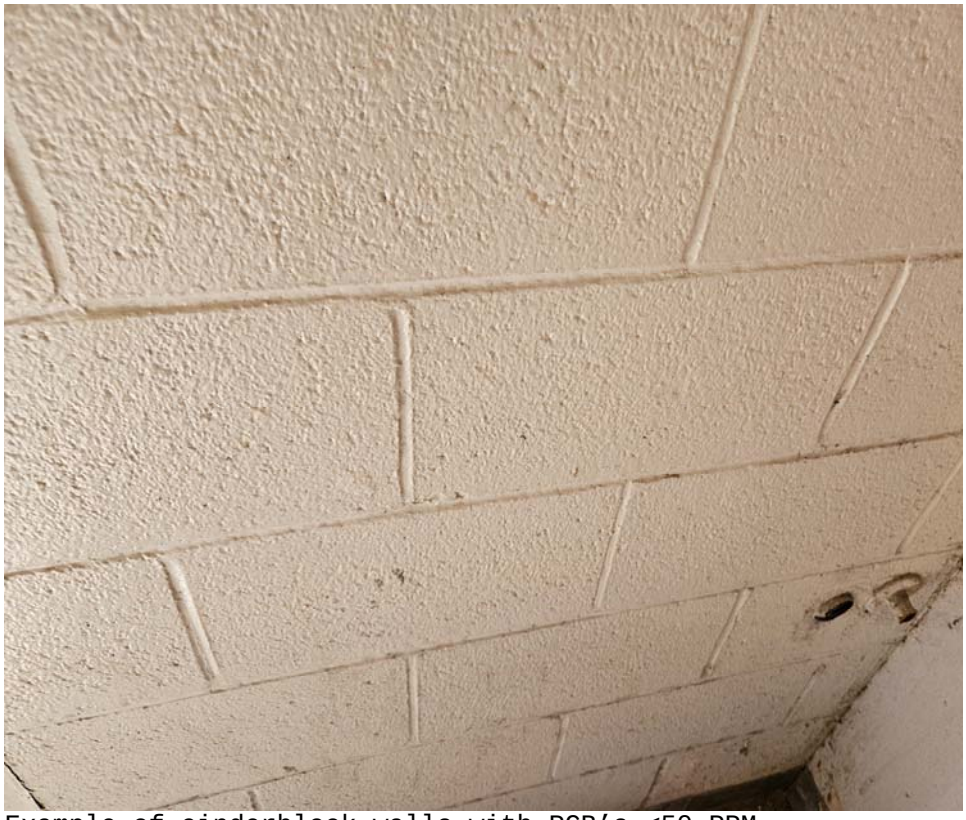
Example of door frame with PCB’s and asbestos-containing caulk

Example of window frames with PCB’s and asbestos-containing glazing

Example of exterior vent with PCB’s



Example of exterior vents with PCB’s



Example of cinderblock walls with PCB’s <50 PPM

Example of internally lined duct with PCB’s <50 PPM

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October 14, 2024

Matrix Health & Safety Consultants
2900 Yonkers Road
Raleigh, NC 27604

CLIENT PROJECT: Mann Hall NCSU
CEI LAB CODE: B2419771

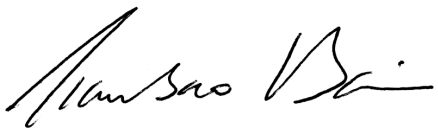
Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on October 9, 2024. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600/R-93/116: *Method for the Determination of Asbestos in Bulk Building Materials* and EPA 40 CFR Appendix E to Subpart E of Part 763: *Interim Method of the Determination of Asbestos in Bulk Insulation Samples.*

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600/R-93/116 Method and EPA 40 CFR Appendix E to Subpart E of Part 763 is <1% asbestos as determined by visual estimation.

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

Kind Regards,



Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP® TESTING
NVLAP LAB CODE 101768-0

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ASBESTOS ANALYTICAL REPORT
By: Polarized Light Microscopy

Prepared for

Matrix Health & Safety Consultants

CLIENT PROJECT: Mann Hall NCSU

LAB CODE: B2419771

TEST METHOD: EPA 600 / R-93 / 116 and EPA 40 CFR Appendix E to Subpart E of Part 763

REPORT DATE: 10/14/24

TOTAL SAMPLES ANALYZED: 15

SAMPLES >1% ASBESTOS: 4

730 SE Maynard Road • Cary, NC 27511 • 919.481.1413

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Mann Hall NCSU

LAB CODE: B2419771

METHOD: EPA 600 / R-93 / 116 and EPA 40 CFR Appendix E to Subpart E of Part 763

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
MHA-1	Layer 1	B2419771.01	Tan	Duct Mastic	None Detected
	Layer 2	B2419771.01	Yellow	Insulation	None Detected
MHA-2	Layer 1	B2419771.02	Tan	Duct Mastic	None Detected
	Layer 2	B2419771.02	Yellow	Insulation	None Detected
MHA-3	Layer 1	B2419771.03	White,Tan	Door Caulk	None Detected
	Layer 2	B2419771.03	Gray	Door Caulk	Chrysotile 2%
MHA-4		B2419771.04	Off-white,Gray	Door Caulk	Chrysotile 2%
MHA-5	Layer 1	B2419771.05	Tan	Duct Mastic	None Detected
	Layer 2	B2419771.05	Yellow	Insulation	None Detected
MHA-6		B2419771.06	Dark Red,Gray	Window Caulking	None Detected
MHA-7		B2419771.07	Dark Red,Gray	Window Caulking	None Detected
MHA-8		B2419771.08	Dark Red,Gray	Window Glazing	Chrysotile 2%
MHA-9		B2419771.09	Dark Red,Gray	Window Glazing	Chrysotile 2%
MHA-10		B2419771.10	Gray	Vent Caulk	None Detected
MHA-11		B2419771.11	Gray	Vent Caulk	None Detected
MHA-12		B2419771.12	Tan,Gray	Terrazzo Floor	None Detected
MHA-13		B2419771.13	Tan,Gray	Terrazzo Floor	None Detected
MHA-14		B2419771.14	White,Gray	Terrazzo Floor	None Detected
MHA-15		B2419771.15	White,Gray	Terrazzo Floor	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Matrix Health & Safety Consultants
2900 Yonkers Road
Raleigh, NC 27604

Lab Code: B2419771
Date Received: 10-09-24
Date Analyzed: 10-14-24
Date Reported: 10-14-24

Project: Mann Hall NCSU

ASBESTOS BULK PLM, EPA 600/R-93/116 METHOD and EPA 40 CFR Appendix E Subpart E to Part 763

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
MHA-1 Layer 1 B2419771.01	Duct Mastic	Homogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected
Layer 2 B2419771.01	Insulation	Homogeneous Yellow Fibrous Loosely Bound	100%	Fiberglass			None Detected
MHA-2 Layer 1 B2419771.02	Duct Mastic	Homogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected
Layer 2 B2419771.02	Insulation	Homogeneous Yellow Fibrous Loosely Bound	100%	Fiberglass			None Detected
MHA-3 Layer 1 B2419771.03	Door Caulk	Heterogeneous White,Tan Non-fibrous Bound			95% 5%	Caulk Paint	None Detected
Layer 2 B2419771.03	Door Caulk	Homogeneous Gray Non-fibrous Bound			98%	Caulk	**2% Chrysotile**
MHA-4 B2419771.04	Door Caulk	Heterogeneous Off-white,Gray Non-fibrous Bound			93% 5%	Caulk Paint	**2% Chrysotile**

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Matrix Health & Safety Consultants
2900 Yonkers Road
Raleigh, NC 27604

Lab Code: B2419771
Date Received: 10-09-24
Date Analyzed: 10-14-24
Date Reported: 10-14-24

Project: Mann Hall NCSU

ASBESTOS BULK PLM, EPA 600/R-93/116 METHOD and EPA 40 CFR Appendix E Subpart E to Part 763

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
MHA-5 Layer 1 B2419771.05	Duct Mastic	Homogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected
Layer 2 B2419771.05	Insulation	Homogeneous Yellow Fibrous Loosely Bound	100%	Fiberglass			None Detected
MHA-6 B2419771.06	Window Caulking	Heterogeneous Dark Red,Gray Non-fibrous Bound			95% 5%	Caulk Paint	None Detected
MHA-7 B2419771.07	Window Caulking	Heterogeneous Dark Red,Gray Non-fibrous Bound			95% 5%	Caulk Paint	None Detected
MHA-8 B2419771.08	Window Glazing	Heterogeneous Dark Red,Gray Non-fibrous Bound			93% 5%	Binder Paint	**2% Chrysotile**
MHA-9 B2419771.09	Window Glazing	Heterogeneous Dark Red,Gray Non-fibrous Bound			93% 5%	Binder Paint	**2% Chrysotile**
MHA-10 B2419771.10	Vent Caulk	Homogeneous Gray Non-fibrous Bound			100%	Caulk	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Matrix Health & Safety Consultants
2900 Yonkers Road
Raleigh, NC 27604

Lab Code: B2419771
Date Received: 10-09-24
Date Analyzed: 10-14-24
Date Reported: 10-14-24

Project: Mann Hall NCSU

ASBESTOS BULK PLM, EPA 600/R-93/116 METHOD and EPA 40 CFR Appendix E Subpart E to Part 763

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous	Non-Fibrous		ASBESTOS %
MHA-11 B2419771.11	Vent Caulk	Homogeneous Gray Non-fibrous Bound		100%	Caulk	None Detected
MHA-12 B2419771.12	Terrazzo Floor	Heterogeneous Tan,Gray Non-fibrous Bound		60% 35% 5%	Silicates Binder Resin	None Detected
MHA-13 B2419771.13	Terrazzo Floor	Heterogeneous Tan,Gray Non-fibrous Bound		60% 35% 5%	Silicates Binder Resin	None Detected
MHA-14 B2419771.14	Terrazzo Floor	Heterogeneous White,Gray Non-fibrous Bound		65% 35%	Silicates Binder	None Detected
MHA-15 B2419771.15	Terrazzo Floor	Heterogeneous White,Gray Non-fibrous Bound		65% 35%	Silicates Binder	None Detected

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LEGEND:
Non-Anth = Non-Asbestiform Anthophyllite
Non-Trem = Non-Asbestiform Tremolite
Calc Carb = Calcium Carbonate

METHOD: EPA 600 / R-93 / 116 and EPA 40 CFR Appendix E to Subpart E of Part 763

REPORTING LIMIT FOR PLM: 1% by calibrated visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

REGULATORY LIMIT: >1%

Due to the limitations of the EPA 600/R-93/116 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID and sample description.

ANALYST: Nicholas Moore

APPROVED BY: Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP® TESTING
NVLAP LAB CODE 101768-0

15

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CHAIN OF CUSTODY

730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

LAB USE ONLY:	
CEI Lab Code:	B2419771
CEI Lab I.D. Range:	

COMPANY INFORMATION		PROJECT INFORMATION	
CEI CLIENT #:		Job Contact:	Gregg E. Heppert
Company:	Matrix Health & Safety Consultants, LLC	Email / Tel:	919.868.2154
Address:	2900 Yonker s Road	Project Name:	MANN Hall NOSE
	Raleigh, NC 27604	Project ID#:	
Email:	gregg@matrixhsc.com	PO #:	
Tel:	919.833.25250 Fax:	STATE SAMPLES COLLECTED IN:	NC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

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

REMARKS / SPECIAL INSTRUCTIONS: 10/8/24

☑ Accept Samples
☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
	10/9/24	BMB	10/9/24 11:20

Samples will be disposed of 30 days after analysis

walkin

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: Matrix Health & Safety Consultants, LLC	Job Contact: Gregg E. Heppert
Project Name: Mann Hall - NCSA	
Project ID #:	Tel: 919.868.2154

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
MHA-1	External Duct Mastic		PLM [X]	TEM [ ]
MHA-2	" "		PLM [X]	TEM [ ]
MHA-3	Interior Door Caulk - South Door/window		PLM [X]	TEM [ ]
MHA-4	" "	complex	PLM [X]	TEM [ ]
MHA-5	External Duct Mastic		PLM [X]	TEM [ ]
MHA-6	Exterior upper window caulk		PLM [X]	TEM [ ]
MHA-7	" "		PLM [X]	TEM [ ]
MHA-8	Exterior upper window Glazing		PLM [X]	TEM [ ]
MHA-9	" "		PLM [X]	TEM [ ]
MHA-10	Exterior Vent Caulk		PLM [X]	TEM [ ]
MHA-11	" "		PLM [X]	TEM [ ]
MHA-12	Terrazzo Floor - Basement		PLM [X]	TEM [ ]
MHA-13	" "		PLM [X]	TEM [ ]
MHA-14	Terrazzo Floor - First Floor		PLM [X]	TEM [ ]
MHA-15	"	"	PLM [X]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
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			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]

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October 17, 2024

Gregg Heppert
Matrix Health & Safety Consultants, LLC
2900 Yonkers Road
Raleigh, NC 27604

Project Location: Raleigh, NC
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 24J1726

Enclosed are results of analyses for samples as received by the laboratory on October 10, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Karriem G. Marius
Project Manager

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Matrix Health & Safety Consultants, LLC
2900 Yonkers Road
Raleigh, NC 27604
ATTN: Gregg Heppert

REPORT DATE: 10/17/2024

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24J1726

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Raleigh, NC

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MH-1 External Duct Mastic 2nd Floor	24J1726-01	Product/Solid		SW-846 8082A	
MH-2 External Duct Mastic 3rd Floor	24J1726-02	Product/Solid		SW-846 8082A	
MH-3 External Duct Mastic 4th Floor	24J1726-03	Product/Solid		SW-846 8082A	
MH-4 Block Filler 2nd Floor	24J1726-04	Product/Solid		SW-846 8082A	
MH-5 Block Filler 3rd Floor	24J1726-05	Product/Solid		SW-846 8082A	
MH-6 Block Filler 4th Floor	24J1726-06	Product/Solid		SW-846 8082A	
MH-7 Tan Door Caulk South (Sticky)	24J1726-07	Caulk		SW-846 8082A Modified	
MH-8 Gray Door Caulk 2nd & 4th	24J1726-08	Caulk		SW-846 8082A Modified	
MH-9 White Door Caulk 2nd	24J1726-09	Caulk		SW-846 8082A	
MH-10 Internal Duct Mastic Rm 306	24J1726-10	Product/Solid		SW-846 8082A	
MH-11 Exterior Window Caulk Upper	24J1726-11	Caulk		SW-846 8082A Modified	
MH-12 Exterior Window Glazing Upper	24J1726-12	Product/Solid		SW-846 8082A	
MH-13 Exterior Vent Caulk East	24J1726-13	Caulk		SW-846 8082A Modified	
MH-14 Brick at Rear Door Left	24J1726-14	Brick		SW-846 8082A	
MH-15 Brick at Rear Door Right	24J1726-15	Brick		SW-846 8082A	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

MS-21

Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.

Analyte & Samples(s) Qualified:

Aroclor-1016
B389248-MS1, B389248-MSD1

Aroclor-1016 [2C]
B389248-MS1, B389248-MSD1

Aroclor-1260
B389248-MS1, B389248-MSD1

Aroclor-1260 [2C]
B389248-MS1, B389248-MSD1

S-01

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte & Samples(s) Qualified:

Decachlorobiphenyl
24J1726-01[MH-1 External Duct Mastic 2nd Floor], 24J1726-02[MH-2 External Duct Mastic 3rd Floor], 24J1726-14[MH-14 Brick at Rear Door Left], B389248-MS1, B389248-MSD1

Decachlorobiphenyl [2C]
24J1726-01[MH-1 External Duct Mastic 2nd Floor], 24J1726-02[MH-2 External Duct Mastic 3rd Floor], 24J1726-14[MH-14 Brick at Rear Door Left], B389248-MS1, B389248-MSD1

Tetrachloro-m-xylene
24J1726-01[MH-1 External Duct Mastic 2nd Floor], 24J1726-02[MH-2 External Duct Mastic 3rd Floor], 24J1726-14[MH-14 Brick at Rear Door Left], B389248-MS1, B389248-MSD1

Tetrachloro-m-xylene [2C]
24J1726-01[MH-1 External Duct Mastic 2nd Floor], 24J1726-02[MH-2 External Duct Mastic 3rd Floor], 24J1726-14[MH-14 Brick at Rear Door Left], B389248-MS1, B389248-MSD1

SW-846 8082A Modified

Qualifications:

S-01

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte & Samples(s) Qualified:

Decachlorobiphenyl
24J1726-07[MH-7 Tan Door Caulk South (Sticky)], 24J1726-11[MH-11 Exterior Window Caulk Upper], 24J1726-13[MH-13 Exterior Vent Caulk East]

Decachlorobiphenyl [2C]
24J1726-07[MH-7 Tan Door Caulk South (Sticky)], 24J1726-11[MH-11 Exterior Window Caulk Upper], 24J1726-13[MH-13 Exterior Vent Caulk East]

Tetrachloro-m-xylene
24J1726-07[MH-7 Tan Door Caulk South (Sticky)], 24J1726-11[MH-11 Exterior Window Caulk Upper], 24J1726-13[MH-13 Exterior Vent Caulk East]

Tetrachloro-m-xylene [2C]
24J1726-07[MH-7 Tan Door Caulk South (Sticky)], 24J1726-11[MH-11 Exterior Window Caulk Upper], 24J1726-13[MH-13 Exterior Vent Caulk East]

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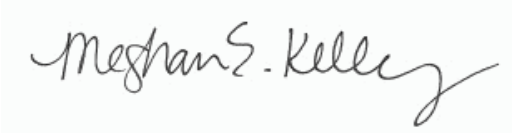
The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Meghan E. Kelley
Reporting Specialist

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-1 External Duct Mastic 2nd Floor | Sampled: 10/8/2024 16:00

Sample ID: 24J1726-01

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	20	4.8	mg/Kg	200		SW-846 8082A	10/14/24	10/16/24 12:27	SFM
Aroclor-1221 [1]	ND	20	9.0	mg/Kg	200		SW-846 8082A	10/14/24	10/16/24 12:27	SFM
Aroclor-1232 [1]	ND	20	4.8	mg/Kg	200		SW-846 8082A	10/14/24	10/16/24 12:27	SFM
Aroclor-1242 [1]	ND	20	5.4	mg/Kg	200		SW-846 8082A	10/14/24	10/16/24 12:27	SFM
Aroclor-1248 [1]	27	20	4.7	mg/Kg	200		SW-846 8082A	10/14/24	10/16/24 12:27	SFM
Aroclor-1254 [2]	57	20	7.4	mg/Kg	200		SW-846 8082A	10/14/24	10/16/24 12:27	SFM
Aroclor-1260 [2]	94	20	5.2	mg/Kg	200		SW-846 8082A	10/14/24	10/16/24 12:27	SFM
Aroclor-1262 [1]	ND	20	5.1	mg/Kg	200		SW-846 8082A	10/14/24	10/16/24 12:27	SFM
Aroclor-1268 [2]	260	20	6.3	mg/Kg	200		SW-846 8082A	10/14/24	10/16/24 12:27	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	*	30-150	S-01	10/16/24 12:27
Decachlorobiphenyl [2]	*	30-150	S-01	10/16/24 12:27
Tetrachloro-m-xylene [1]	*	30-150	S-01	10/16/24 12:27
Tetrachloro-m-xylene [2]	*	30-150	S-01	10/16/24 12:27

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Project Location: Raleigh, NC
Sample Description:
Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-2 External Duct Mastic 3rd Floor
Sampled: 10/8/2024 16:10

Sample ID: 24J1726-02

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	3.5	0.87	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 9:59	SFM
Aroclor-1221 [1]	ND	3.5	1.6	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 9:59	SFM
Aroclor-1232 [1]	ND	3.5	0.87	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 9:59	SFM
Aroclor-1242 [1]	ND	3.5	0.97	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 9:59	SFM
Aroclor-1248 [1]	27	3.5	0.85	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 9:59	SFM
Aroclor-1254 [1]	30	3.5	1.1	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 9:59	SFM
Aroclor-1260 [2]	3.2	3.5	0.93	mg/Kg	50	J	SW-846 8082A	10/14/24	10/16/24 9:59	SFM
Aroclor-1262 [1]	ND	3.5	0.92	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 9:59	SFM
Aroclor-1268 [1]	ND	3.5	0.93	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 9:59	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	*	30-150	S-01	10/16/24 9:59
Decachlorobiphenyl [2]	*	30-150	S-01	10/16/24 9:59
Tetrachloro-m-xylene [1]	*	30-150	S-01	10/16/24 9:59
Tetrachloro-m-xylene [2]	*	30-150	S-01	10/16/24 9:59

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-3 External Duct Mastic 4th Floor | Sampled: 10/8/2024 16:15

Sample ID: 24J1726-03

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	2.0	0.49	mg/Kg	20		SW-846 8082A	10/16/24	10/17/24 10:58	SFM
Aroclor-1221 [1]	ND	2.0	0.92	mg/Kg	20		SW-846 8082A	10/16/24	10/17/24 10:58	SFM
Aroclor-1232 [1]	ND	2.0	0.49	mg/Kg	20		SW-846 8082A	10/16/24	10/17/24 10:58	SFM
Aroclor-1242 [1]	ND	2.0	0.55	mg/Kg	20		SW-846 8082A	10/16/24	10/17/24 10:58	SFM
Aroclor-1248 [2]	14	2.0	0.50	mg/Kg	20		SW-846 8082A	10/16/24	10/17/24 10:58	SFM
Aroclor-1254 [1]	14	2.0	0.59	mg/Kg	20		SW-846 8082A	10/16/24	10/17/24 10:58	SFM
Aroclor-1260 [1]	1.4	2.0	0.41	mg/Kg	20	J	SW-846 8082A	10/16/24	10/17/24 10:58	SFM
Aroclor-1262 [1]	ND	2.0	0.52	mg/Kg	20		SW-846 8082A	10/16/24	10/17/24 10:58	SFM
Aroclor-1268 [1]	ND	2.0	0.52	mg/Kg	20		SW-846 8082A	10/16/24	10/17/24 10:58	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	64.3	30-150		10/17/24 10:58
Decachlorobiphenyl [2]	56.0	30-150		10/17/24 10:58
Tetrachloro-m-xylene [1]	84.7	30-150		10/17/24 10:58
Tetrachloro-m-xylene [2]	69.7	30-150		10/17/24 10:58

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-4 Block Filler 2nd Floor | Sampled: 10/8/2024 16:22

Sample ID: 24J1726-04

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.90	0.22	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:16	SFM
Aroclor-1221 [1]	ND	0.90	0.42	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:16	SFM
Aroclor-1232 [1]	ND	0.90	0.22	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:16	SFM
Aroclor-1242 [1]	ND	0.90	0.25	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:16	SFM
Aroclor-1248 [1]	2.9	0.90	0.22	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:16	SFM
Aroclor-1254 [1]	5.8	0.90	0.27	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:16	SFM
Aroclor-1260 [2]	0.59	0.90	0.24	mg/Kg	10	J	SW-846 8082A	10/14/24	10/16/24 10:16	SFM
Aroclor-1262 [1]	ND	0.90	0.23	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:16	SFM
Aroclor-1268 [1]	ND	0.90	0.24	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:16	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	101	30-150		10/16/24 10:16
Decachlorobiphenyl [2]	102	30-150		10/16/24 10:16
Tetrachloro-m-xylene [1]	95.1	30-150		10/16/24 10:16
Tetrachloro-m-xylene [2]	96.2	30-150		10/16/24 10:16

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-5 Block Filler 3rd Floor | Sampled: 10/8/2024 16:30

Sample ID: 24J1726-05

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.072	0.018	mg/Kg	1		SW-846 8082A	10/14/24	10/15/24 17:29	SFM
Aroclor-1221 [1]	ND	0.072	0.033	mg/Kg	1		SW-846 8082A	10/14/24	10/15/24 17:29	SFM
Aroclor-1232 [1]	ND	0.072	0.018	mg/Kg	1		SW-846 8082A	10/14/24	10/15/24 17:29	SFM
Aroclor-1242 [1]	ND	0.072	0.020	mg/Kg	1		SW-846 8082A	10/14/24	10/15/24 17:29	SFM
Aroclor-1248 [1]	0.45	0.072	0.017	mg/Kg	1		SW-846 8082A	10/14/24	10/15/24 17:29	SFM
Aroclor-1254 [1]	0.84	0.072	0.021	mg/Kg	1		SW-846 8082A	10/14/24	10/15/24 17:29	SFM
Aroclor-1260 [1]	0.090	0.072	0.015	mg/Kg	1		SW-846 8082A	10/14/24	10/15/24 17:29	SFM
Aroclor-1262 [1]	ND	0.072	0.019	mg/Kg	1		SW-846 8082A	10/14/24	10/15/24 17:29	SFM
Aroclor-1268 [1]	ND	0.072	0.019	mg/Kg	1		SW-846 8082A	10/14/24	10/15/24 17:29	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	106	30-150		10/15/24 17:29
Decachlorobiphenyl [2]	101	30-150		10/15/24 17:29
Tetrachloro-m-xylene [1]	98.3	30-150		10/15/24 17:29
Tetrachloro-m-xylene [2]	88.4	30-150		10/15/24 17:29

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-6 Block Filler 4th Floor | Sampled: 10/8/2024 16:39

Sample ID: 24J1726-06

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.97	0.24	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:33	SFM
Aroclor-1221 [1]	ND	0.97	0.45	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:33	SFM
Aroclor-1232 [1]	ND	0.97	0.24	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:33	SFM
Aroclor-1242 [1]	ND	0.97	0.27	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:33	SFM
Aroclor-1248 [1]	6.0	0.97	0.23	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:33	SFM
Aroclor-1254 [2]	9.2	0.97	0.37	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:33	SFM
Aroclor-1260 [2]	1.2	0.97	0.26	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:33	SFM
Aroclor-1262 [1]	ND	0.97	0.25	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:33	SFM
Aroclor-1268 [1]	ND	0.97	0.25	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:33	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	79.1	30-150		10/16/24 10:33
Decachlorobiphenyl [2]	81.1	30-150		10/16/24 10:33
Tetrachloro-m-xylene [1]	76.3	30-150		10/16/24 10:33
Tetrachloro-m-xylene [2]	76.6	30-150		10/16/24 10:33

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-7 Tan Door Caulk South (Sticky) | Sampled: 10/8/2024 17:30

Sample ID: 24J1726-07

Sample Matrix: Caulk

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	72		mg/Kg	40		SW-846 8082A Modified	10/15/24	10/16/24 8:13	MEW
Aroclor-1221 [1]	ND	72		mg/Kg	40		SW-846 8082A Modified	10/15/24	10/16/24 8:13	MEW
Aroclor-1232 [1]	ND	72		mg/Kg	40		SW-846 8082A Modified	10/15/24	10/16/24 8:13	MEW
Aroclor-1242 [1]	ND	72		mg/Kg	40		SW-846 8082A Modified	10/15/24	10/16/24 8:13	MEW
Aroclor-1248 [2]	940	72		mg/Kg	40		SW-846 8082A Modified	10/15/24	10/16/24 8:13	MEW
Aroclor-1254 [1]	220	72		mg/Kg	40		SW-846 8082A Modified	10/15/24	10/16/24 8:13	MEW
Aroclor-1260 [1]	ND	72		mg/Kg	40		SW-846 8082A Modified	10/15/24	10/16/24 8:13	MEW
Aroclor-1262 [1]	ND	72		mg/Kg	40		SW-846 8082A Modified	10/15/24	10/16/24 8:13	MEW
Aroclor-1268 [1]	ND	72		mg/Kg	40		SW-846 8082A Modified	10/15/24	10/16/24 8:13	MEW

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	*	30-150	S-01	10/16/24 8:13
Decachlorobiphenyl [2]	*	30-150	S-01	10/16/24 8:13
Tetrachloro-m-xylene [1]	*	30-150	S-01	10/16/24 8:13
Tetrachloro-m-xylene [2]	*	30-150	S-01	10/16/24 8:13

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Project Location: Raleigh, NC
Sample Description:
Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-8 Gray Door Caulk 2nd & 4th
Sampled: 10/8/2024 17:33

Sample ID: 24J1726-08

Sample Matrix: Caulk

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	38		mg/Kg	20		SW-846 8082A Modified	10/15/24	10/15/24 15:46	MEW
Aroclor-1221 [1]	ND	38		mg/Kg	20		SW-846 8082A Modified	10/15/24	10/15/24 15:46	MEW
Aroclor-1232 [1]	ND	38		mg/Kg	20		SW-846 8082A Modified	10/15/24	10/15/24 15:46	MEW
Aroclor-1242 [1]	ND	38		mg/Kg	20		SW-846 8082A Modified	10/15/24	10/15/24 15:46	MEW
Aroclor-1248 [2]	560	38		mg/Kg	20		SW-846 8082A Modified	10/15/24	10/15/24 15:46	MEW
Aroclor-1254 [2]	140	38		mg/Kg	20		SW-846 8082A Modified	10/15/24	10/15/24 15:46	MEW
Aroclor-1260 [1]	ND	38		mg/Kg	20		SW-846 8082A Modified	10/15/24	10/15/24 15:46	MEW
Aroclor-1262 [1]	ND	38		mg/Kg	20		SW-846 8082A Modified	10/15/24	10/15/24 15:46	MEW
Aroclor-1268 [1]	ND	38		mg/Kg	20		SW-846 8082A Modified	10/15/24	10/15/24 15:46	MEW

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	110	30-150		10/15/24 15:46
Decachlorobiphenyl [2]	102	30-150		10/15/24 15:46
Tetrachloro-m-xylene [1]	110	30-150		10/15/24 15:46
Tetrachloro-m-xylene [2]	104	30-150		10/15/24 15:46

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-9 White Door Caulk 2nd | Sampled: 10/8/2024 17:40

Sample ID: 24J1726-09

Sample Matrix: Caulk

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.78	0.19	mg/Kg	4		SW-846 8082A	10/15/24	10/16/24 12:24	SFM
Aroclor-1221 [1]	ND	0.78	0.36	mg/Kg	4		SW-846 8082A	10/15/24	10/16/24 12:24	SFM
Aroclor-1232 [1]	ND	0.78	0.19	mg/Kg	4		SW-846 8082A	10/15/24	10/16/24 12:24	SFM
Aroclor-1242 [1]	ND	0.78	0.21	mg/Kg	4		SW-846 8082A	10/15/24	10/16/24 12:24	SFM
Aroclor-1248 [2]	32	0.78	0.20	mg/Kg	4		SW-846 8082A	10/15/24	10/16/24 12:24	SFM
Aroclor-1254 [1]	21	0.78	0.23	mg/Kg	4		SW-846 8082A	10/15/24	10/16/24 12:24	SFM
Aroclor-1260 [1]	ND	0.78	0.16	mg/Kg	4		SW-846 8082A	10/15/24	10/16/24 12:24	SFM
Aroclor-1262 [1]	ND	0.78	0.20	mg/Kg	4		SW-846 8082A	10/15/24	10/16/24 12:24	SFM
Aroclor-1268 [1]	ND	0.78	0.20	mg/Kg	4		SW-846 8082A	10/15/24	10/16/24 12:24	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	75.0	30-150		10/16/24 12:24
Decachlorobiphenyl [2]	75.1	30-150		10/16/24 12:24
Tetrachloro-m-xylene [1]	89.9	30-150		10/16/24 12:24
Tetrachloro-m-xylene [2]	90.2	30-150		10/16/24 12:24

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Project Location: Raleigh, NC
Sample Description:
Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-10 Internal Duct Mastic Rm 306
Sampled: 10/8/2024 17:45

Sample ID: 24J1726-10

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.19	0.046	mg/Kg	2		SW-846 8082A	10/16/24	10/17/24 11:51	SFM
Aroclor-1221 [1]	ND	0.19	0.087	mg/Kg	2		SW-846 8082A	10/16/24	10/17/24 11:51	SFM
Aroclor-1232 [1]	ND	0.19	0.046	mg/Kg	2		SW-846 8082A	10/16/24	10/17/24 11:51	SFM
Aroclor-1242 [1]	ND	0.19	0.052	mg/Kg	2		SW-846 8082A	10/16/24	10/17/24 11:51	SFM
Aroclor-1248 [1]	0.64	0.19	0.045	mg/Kg	2		SW-846 8082A	10/16/24	10/17/24 11:51	SFM
Aroclor-1254 [2]	2.7	0.19	0.071	mg/Kg	2		SW-846 8082A	10/16/24	10/17/24 11:51	SFM
Aroclor-1260 [1]	ND	0.19	0.039	mg/Kg	2		SW-846 8082A	10/16/24	10/17/24 11:51	SFM
Aroclor-1262 [1]	ND	0.19	0.049	mg/Kg	2		SW-846 8082A	10/16/24	10/17/24 11:51	SFM
Aroclor-1268 [1]	ND	0.19	0.050	mg/Kg	2		SW-846 8082A	10/16/24	10/17/24 11:51	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	52.0	30-150		10/17/24 11:51
Decachlorobiphenyl [2]	57.6	30-150		10/17/24 11:51
Tetrachloro-m-xylene [1]	63.5	30-150		10/17/24 11:51
Tetrachloro-m-xylene [2]	66.4	30-150		10/17/24 11:51

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-11 Exterior Window Caulk Upper | Sampled: 10/8/2024 17:55

Sample ID: 24J1726-11

Sample Matrix: Caulk

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	750		mg/Kg	400		SW-846 8082A Modified	10/15/24	10/16/24 8:31	MEW
Aroclor-1221 [1]	ND	750		mg/Kg	400		SW-846 8082A Modified	10/15/24	10/16/24 8:31	MEW
Aroclor-1232 [1]	ND	750		mg/Kg	400		SW-846 8082A Modified	10/15/24	10/16/24 8:31	MEW
Aroclor-1242 [1]	ND	750		mg/Kg	400		SW-846 8082A Modified	10/15/24	10/16/24 8:31	MEW
Aroclor-1248 [1]	15000	750		mg/Kg	400		SW-846 8082A Modified	10/15/24	10/16/24 8:31	MEW
Aroclor-1254 [2]	31000	750		mg/Kg	400		SW-846 8082A Modified	10/15/24	10/16/24 8:31	MEW
Aroclor-1260 [1]	ND	750		mg/Kg	400		SW-846 8082A Modified	10/15/24	10/16/24 8:31	MEW
Aroclor-1262 [1]	ND	750		mg/Kg	400		SW-846 8082A Modified	10/15/24	10/16/24 8:31	MEW
Aroclor-1268 [1]	ND	750		mg/Kg	400		SW-846 8082A Modified	10/15/24	10/16/24 8:31	MEW

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	*	30-150	S-01	10/16/24 8:31
Decachlorobiphenyl [2]	*	30-150	S-01	10/16/24 8:31
Tetrachloro-m-xylene [1]	*	30-150	S-01	10/16/24 8:31
Tetrachloro-m-xylene [2]	*	30-150	S-01	10/16/24 8:31

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-12 Exterior Window Glazing Upper | Sampled: 10/8/2024 17:57

Sample ID: 24J1726-12

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.71	0.17	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:50	SFM
Aroclor-1221 [1]	ND	0.71	0.33	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:50	SFM
Aroclor-1232 [1]	ND	0.71	0.17	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:50	SFM
Aroclor-1242 [1]	ND	0.71	0.20	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:50	SFM
Aroclor-1248 [1]	1.7	0.71	0.17	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:50	SFM
Aroclor-1254 [1]	7.5	0.71	0.21	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:50	SFM
Aroclor-1260 [1]	ND	0.71	0.15	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:50	SFM
Aroclor-1262 [1]	ND	0.71	0.18	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:50	SFM
Aroclor-1268 [1]	ND	0.71	0.19	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 10:50	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	109	30-150		10/16/24 10:50
Decachlorobiphenyl [2]	116	30-150		10/16/24 10:50
Tetrachloro-m-xylene [1]	91.8	30-150		10/16/24 10:50
Tetrachloro-m-xylene [2]	86.7	30-150		10/16/24 10:50

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-13 Exterior Vent Caulk East | Sampled: 10/8/2024 18:09

Sample ID: 24J1726-13

Sample Matrix: Caulk

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	3500		mg/Kg	2000		SW-846 8082A Modified	10/15/24	10/15/24 16:22	MEW
Aroclor-1221 [1]	ND	3500		mg/Kg	2000		SW-846 8082A Modified	10/15/24	10/15/24 16:22	MEW
Aroclor-1232 [1]	ND	3500		mg/Kg	2000		SW-846 8082A Modified	10/15/24	10/15/24 16:22	MEW
Aroclor-1242 [1]	ND	3500		mg/Kg	2000		SW-846 8082A Modified	10/15/24	10/15/24 16:22	MEW
Aroclor-1248 [1]	ND	3500		mg/Kg	2000		SW-846 8082A Modified	10/15/24	10/15/24 16:22	MEW
Aroclor-1254 [2]	34000	3500		mg/Kg	2000		SW-846 8082A Modified	10/15/24	10/15/24 16:22	MEW
Aroclor-1260 [1]	ND	3500		mg/Kg	2000		SW-846 8082A Modified	10/15/24	10/15/24 16:22	MEW
Aroclor-1262 [1]	ND	3500		mg/Kg	2000		SW-846 8082A Modified	10/15/24	10/15/24 16:22	MEW
Aroclor-1268 [1]	ND	3500		mg/Kg	2000		SW-846 8082A Modified	10/15/24	10/15/24 16:22	MEW

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	*	30-150	S-01	10/15/24 16:22
Decachlorobiphenyl [2]	*	30-150	S-01	10/15/24 16:22
Tetrachloro-m-xylene [1]	*	30-150	S-01	10/15/24 16:22
Tetrachloro-m-xylene [2]	*	30-150	S-01	10/15/24 16:22

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-14 Brick at Rear Door Left | Sampled: 10/8/2024 17:00

Sample ID: 24J1726-14

Sample Matrix: Brick

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	3.9	0.97	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 11:07	SFM
Aroclor-1221 [1]	ND	3.9	1.8	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 11:07	SFM
Aroclor-1232 [1]	ND	3.9	0.96	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 11:07	SFM
Aroclor-1242 [1]	ND	3.9	1.1	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 11:07	SFM
Aroclor-1248 [1]	2.3	3.9	0.94	mg/Kg	50	J	SW-846 8082A	10/14/24	10/16/24 11:07	SFM
Aroclor-1254 [2]	23	3.9	1.5	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 11:07	SFM
Aroclor-1260 [1]	ND	3.9	0.81	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 11:07	SFM
Aroclor-1262 [1]	ND	3.9	1.0	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 11:07	SFM
Aroclor-1268 [1]	ND	3.9	1.0	mg/Kg	50		SW-846 8082A	10/14/24	10/16/24 11:07	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	*	30-150	S-01	10/16/24 11:07
Decachlorobiphenyl [2]	*	30-150	S-01	10/16/24 11:07
Tetrachloro-m-xylene [1]	*	30-150	S-01	10/16/24 11:07
Tetrachloro-m-xylene [2]	*	30-150	S-01	10/16/24 11:07

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1726

Date Received: 10/10/2024

Field Sample #: MH-15 Brick at Rear Door Right | Sampled: 10/8/2024 17:10

Sample ID: 24J1726-15

Sample Matrix: Brick

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.90	0.22	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 11:24	SFM
Aroclor-1221 [1]	ND	0.90	0.42	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 11:24	SFM
Aroclor-1232 [1]	ND	0.90	0.22	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 11:24	SFM
Aroclor-1242 [1]	ND	0.90	0.25	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 11:24	SFM
Aroclor-1248 [1]	2.9	0.90	0.22	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 11:24	SFM
Aroclor-1254 [2]	6.2	0.90	0.34	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 11:24	SFM
Aroclor-1260 [1]	ND	0.90	0.19	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 11:24	SFM
Aroclor-1262 [1]	ND	0.90	0.23	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 11:24	SFM
Aroclor-1268 [1]	ND	0.90	0.24	mg/Kg	10		SW-846 8082A	10/14/24	10/16/24 11:24	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	106	30-150		10/16/24 11:24
Decachlorobiphenyl [2]	109	30-150		10/16/24 11:24
Tetrachloro-m-xylene [1]	91.9	30-150		10/16/24 11:24
Tetrachloro-m-xylene [2]	93.1	30-150		10/16/24 11:24

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Sample Extraction Data

Prep Method:SW-846 3546 **Analytical Method:SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
24J1726-09 [MH-9 White Door Caulk 2nd]	B389358	0.514	10.0	10/15/24

Prep Method:SW-846 3546 **Analytical Method:SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
24J1726-01 [MH-1 External Duct Mastic 2nd Floor]	B389248	2.05	10.0	10/14/24
24J1726-02 [MH-2 External Duct Mastic 3rd Floor]	B389248	2.83	10.0	10/14/24
24J1726-04 [MH-4 Block Filler 2nd Floor]	B389248	2.21	10.0	10/14/24
24J1726-05 [MH-5 Block Filler 3rd Floor]	B389248	2.77	10.0	10/14/24
24J1726-06 [MH-6 Block Filler 4th Floor]	B389248	2.07	10.0	10/14/24
24J1726-12 [MH-12 Exterior Window Glazing Upper]	B389248	2.82	10.0	10/14/24
24J1726-14 [MH-14 Brick at Rear Door Left]	B389248	2.55	10.0	10/14/24
24J1726-15 [MH-15 Brick at Rear Door Right]	B389248	2.21	10.0	10/14/24

Prep Method:SW-846 3546 **Analytical Method:SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
24J1726-03RE1 [MH-3 External Duct Mastic 4th Floor]	B389477	2.01	10.0	10/16/24
24J1726-10RE1 [MH-10 Internal Duct Mastic Rm 306]	B389477	1.91	9.00	10/16/24

Prep Method:SW-846 3540C **Analytical Method:SW-846 8082A Modified**

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
24J1726-07 [MH-7 Tan Door Caulk South (Sticky)]	B389208	0.0555	10.0	10/15/24
24J1726-08 [MH-8 Gray Door Caulk 2nd & 4th]	B389208	0.0520	10.0	10/15/24
24J1726-11 [MH-11 Exterior Window Caulk Upper]	B389208	0.0536	10.0	10/15/24
24J1726-13 [MH-13 Exterior Vent Caulk East]	B389208	0.0571	10.0	10/15/24

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B389208 - SW-846 3540C										
Blank (B389208-BLK1)				Prepared: 10/14/24 Analyzed: 10/16/24						
Aroclor-1016	ND	1.7	mg/Kg							
Aroclor-1016 [2C]	ND	1.7	mg/Kg							
Aroclor-1221	ND	1.7	mg/Kg							
Aroclor-1221 [2C]	ND	1.7	mg/Kg							
Aroclor-1232	ND	1.7	mg/Kg							
Aroclor-1232 [2C]	ND	1.7	mg/Kg							
Aroclor-1242	ND	1.7	mg/Kg							
Aroclor-1242 [2C]	ND	1.7	mg/Kg							
Aroclor-1248	ND	1.7	mg/Kg							
Aroclor-1248 [2C]	ND	1.7	mg/Kg							
Aroclor-1254	ND	1.7	mg/Kg							
Aroclor-1254 [2C]	ND	1.7	mg/Kg							
Aroclor-1260	ND	1.7	mg/Kg							
Aroclor-1260 [2C]	ND	1.7	mg/Kg							
Aroclor-1262	ND	1.7	mg/Kg							
Aroclor-1262 [2C]	ND	1.7	mg/Kg							
Aroclor-1268	ND	1.7	mg/Kg							
Aroclor-1268 [2C]	ND	1.7	mg/Kg							
Surrogate: Decachlorobiphenyl	*36.3*		mg/Kg	33.67		108	30-150			
Surrogate: Decachlorobiphenyl [2C]	*35.0*		mg/Kg	33.67		104	30-150			
Surrogate: Tetrachloro-m-xylene	*36.7*		mg/Kg	33.67		109	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*37.1*		mg/Kg	33.67		110	30-150			
LCS (B389208-BS1)				Prepared: 10/14/24 Analyzed: 10/16/24						
Aroclor-1016	35	1.7	mg/Kg	33.61		105	40-140			
Aroclor-1016 [2C]	33	1.7	mg/Kg	33.61		99.6	40-140			
Aroclor-1260	37	1.7	mg/Kg	33.61		109	40-140			
Aroclor-1260 [2C]	35	1.7	mg/Kg	33.61		104	40-140			
Surrogate: Decachlorobiphenyl	*41.5*		mg/Kg	33.61		124	30-150			
Surrogate: Decachlorobiphenyl [2C]	*40.0*		mg/Kg	33.61		119	30-150			
Surrogate: Tetrachloro-m-xylene	*41.6*		mg/Kg	33.61		124	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*42.1*		mg/Kg	33.61		125	30-150			
LCS Dup (B389208-BSD1)				Prepared: 10/14/24 Analyzed: 10/16/24						
Aroclor-1016	34	1.7	mg/Kg	34.54		97.7	40-140	4.41		
Aroclor-1016 [2C]	32	1.7	mg/Kg	34.54		93.8	40-140	3.31		
Aroclor-1260	35	1.7	mg/Kg	34.54		102	40-140	3.98		
Aroclor-1260 [2C]	33	1.7	mg/Kg	34.54		96.8	40-140	4.07		
Surrogate: Decachlorobiphenyl	*41.4*		mg/Kg	34.54		120	30-150			
Surrogate: Decachlorobiphenyl [2C]	*39.8*		mg/Kg	34.54		115	30-150			
Surrogate: Tetrachloro-m-xylene	*40.0*		mg/Kg	34.54		116	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*40.2*		mg/Kg	34.54		116	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B389248 - SW-846 3546										
Blank (B389248-BLK1)				Prepared: 10/14/24 Analyzed: 10/15/24						
Aroclor-1016	ND	0.080	mg/Kg							
Aroclor-1016 [2C]	ND	0.080	mg/Kg							
Aroclor-1221	ND	0.080	mg/Kg							
Aroclor-1221 [2C]	ND	0.080	mg/Kg							
Aroclor-1232	ND	0.080	mg/Kg							
Aroclor-1232 [2C]	ND	0.080	mg/Kg							
Aroclor-1242	ND	0.080	mg/Kg							
Aroclor-1242 [2C]	ND	0.080	mg/Kg							
Aroclor-1248	ND	0.080	mg/Kg							
Aroclor-1248 [2C]	ND	0.080	mg/Kg							
Aroclor-1254	ND	0.080	mg/Kg							
Aroclor-1254 [2C]	ND	0.080	mg/Kg							
Aroclor-1260	ND	0.080	mg/Kg							
Aroclor-1260 [2C]	ND	0.080	mg/Kg							
Aroclor-1262	ND	0.080	mg/Kg							
Aroclor-1262 [2C]	ND	0.080	mg/Kg							
Aroclor-1268	ND	0.080	mg/Kg							
Aroclor-1268 [2C]	ND	0.080	mg/Kg							
Surrogate: Decachlorobiphenyl	*0.852*		mg/Kg	0.7968		107	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.835*		mg/Kg	0.7968		105	30-150			
Surrogate: Tetrachloro-m-xylene	*0.765*		mg/Kg	0.7968		96.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.679*		mg/Kg	0.7968		85.2	30-150			
LCS (B389248-BS1)				Prepared: 10/14/24 Analyzed: 10/15/24						
Aroclor-1016	0.79	0.082	mg/Kg	0.8163		97.0	40-140			
Aroclor-1016 [2C]	0.79	0.082	mg/Kg	0.8163		96.3	40-140			
Aroclor-1260	0.89	0.082	mg/Kg	0.8163		109	40-140			
Aroclor-1260 [2C]	0.91	0.082	mg/Kg	0.8163		112	40-140			
Surrogate: Decachlorobiphenyl	*0.891*		mg/Kg	0.8163		109	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.875*		mg/Kg	0.8163		107	30-150			
Surrogate: Tetrachloro-m-xylene	*0.852*		mg/Kg	0.8163		104	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.762*		mg/Kg	0.8163		93.3	30-150			
LCS Dup (B389248-BSD1)				Prepared: 10/14/24 Analyzed: 10/15/24						
Aroclor-1016	0.75	0.081	mg/Kg	0.8097		92.0	40-140	6.10	30	
Aroclor-1016 [2C]	0.74	0.081	mg/Kg	0.8097		91.1	40-140	6.40	30	
Aroclor-1260	0.86	0.081	mg/Kg	0.8097		107	40-140	3.00	30	
Aroclor-1260 [2C]	0.89	0.081	mg/Kg	0.8097		110	40-140	2.85	30	
Surrogate: Decachlorobiphenyl	*0.857*		mg/Kg	0.8097		106	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.846*		mg/Kg	0.8097		104	30-150			
Surrogate: Tetrachloro-m-xylene	*0.778*		mg/Kg	0.8097		96.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.689*		mg/Kg	0.8097		85.0	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B389248 - SW-846 3546												
Matrix Spike (B389248-MS1)	**Source: 24J1726-14**			Prepared: 10/14/24 Analyzed: 10/16/24								
Aroclor-1016	5.7	3.9	mg/Kg	0.7752	ND	**730**	*	40-140				MS-21
Aroclor-1016 [2C]	5.9	3.9	mg/Kg	0.7752	ND	**760**	*	40-140				MS-21
Aroclor-1260	25	3.9	mg/Kg	0.7752	ND	**3240**	*	40-140				MS-21
Aroclor-1260 [2C]	35	3.9	mg/Kg	0.7752	ND	**4560**	*	40-140				MS-21
Surrogate: Decachlorobiphenyl	*0.00*		mg/Kg	0.7752			*	30-150				S-01
Surrogate: Decachlorobiphenyl [2C]	*0.00*		mg/Kg	0.7752			*	30-150				S-01
Surrogate: Tetrachloro-m-xylene	*0.00*		mg/Kg	0.7752			*	30-150				S-01
Surrogate: Tetrachloro-m-xylene [2C]	*0.00*		mg/Kg	0.7752			*	30-150				S-01
Matrix Spike Dup (B389248-MSD1)	**Source: 24J1726-14**			Prepared: 10/14/24 Analyzed: 10/16/24								
Aroclor-1016	4.1	4.0	mg/Kg	0.8000	ND	**515**	*	40-140	**31.5**	*	30	MS-21
Aroclor-1016 [2C]	4.3	4.0	mg/Kg	0.8000	ND	**533**	*	40-140	**32.0**	*	30	MS-21
Aroclor-1260	11	4.0	mg/Kg	0.8000	ND	**1370**	*	40-140	**78.5**	*	30	MS-21
Aroclor-1260 [2C]	16	4.0	mg/Kg	0.8000	ND	**2000**	*	40-140	**75.4**	*	30	MS-21
Surrogate: Decachlorobiphenyl	*0.00*		mg/Kg	0.8000			*	30-150				S-01
Surrogate: Decachlorobiphenyl [2C]	*0.00*		mg/Kg	0.8000			*	30-150				S-01
Surrogate: Tetrachloro-m-xylene	*0.00*		mg/Kg	0.8000			*	30-150				S-01
Surrogate: Tetrachloro-m-xylene [2C]	*0.00*		mg/Kg	0.8000			*	30-150				S-01
Batch B389358 - SW-846 3546												
Blank (B389358-BLK1)				Prepared: 10/15/24 Analyzed: 10/16/24								
Aroclor-1016	ND	0.19	mg/Kg									
Aroclor-1016 [2C]	ND	0.19	mg/Kg									
Aroclor-1221	ND	0.19	mg/Kg									
Aroclor-1221 [2C]	ND	0.19	mg/Kg									
Aroclor-1232	ND	0.19	mg/Kg									
Aroclor-1232 [2C]	ND	0.19	mg/Kg									
Aroclor-1242	ND	0.19	mg/Kg									
Aroclor-1242 [2C]	ND	0.19	mg/Kg									
Aroclor-1248	ND	0.19	mg/Kg									
Aroclor-1248 [2C]	ND	0.19	mg/Kg									
Aroclor-1254	ND	0.19	mg/Kg									
Aroclor-1254 [2C]	ND	0.19	mg/Kg									
Aroclor-1260	ND	0.19	mg/Kg									
Aroclor-1260 [2C]	ND	0.19	mg/Kg									
Aroclor-1262	ND	0.19	mg/Kg									
Aroclor-1262 [2C]	ND	0.19	mg/Kg									
Aroclor-1268	ND	0.19	mg/Kg									
Aroclor-1268 [2C]	ND	0.19	mg/Kg									
Surrogate: Decachlorobiphenyl	*2.66*		mg/Kg	3.887		68.5		30-150				
Surrogate: Decachlorobiphenyl [2C]	*3.24*		mg/Kg	3.887		83.3		30-150				
Surrogate: Tetrachloro-m-xylene	*3.00*		mg/Kg	3.887		77.3		30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*3.67*		mg/Kg	3.887		94.4		30-150				

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B389358 - SW-846 3546										
LCS (B389358-BS1)				Prepared: 10/15/24 Analyzed: 10/16/24						
Aroclor-1016	2.8	0.18	mg/Kg	3.687		76.9	40-140			
Aroclor-1016 [2C]	3.1	0.18	mg/Kg	3.687		83.0	40-140			
Aroclor-1260	3.2	0.18	mg/Kg	3.687		86.4	40-140			
Aroclor-1260 [2C]	3.3	0.18	mg/Kg	3.687		89.8	40-140			
Surrogate: Decachlorobiphenyl	*2.58*		mg/Kg	3.687		70.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*3.13*		mg/Kg	3.687		85.0	30-150			
Surrogate: Tetrachloro-m-xylene	*2.82*		mg/Kg	3.687		76.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*3.35*		mg/Kg	3.687		90.9	30-150			
LCS Dup (B389358-BSD1)				Prepared: 10/15/24 Analyzed: 10/16/24						
Aroclor-1016	2.9	0.19	mg/Kg	3.747		78.7	40-140	3.91		
Aroclor-1016 [2C]	3.1	0.19	mg/Kg	3.747		83.5	40-140	2.24		
Aroclor-1260	3.3	0.19	mg/Kg	3.747		88.8	40-140	4.45		
Aroclor-1260 [2C]	3.3	0.19	mg/Kg	3.747		88.7	40-140	0.358		
Surrogate: Decachlorobiphenyl	*2.59*		mg/Kg	3.747		69.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*3.06*		mg/Kg	3.747		81.6	30-150			
Surrogate: Tetrachloro-m-xylene	*2.97*		mg/Kg	3.747		79.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*3.46*		mg/Kg	3.747		92.4	30-150			
Batch B389477 - SW-846 3546										
Blank (B389477-BLK1)				Prepared: 10/16/24 Analyzed: 10/17/24						
Aroclor-1016	ND	0.087	mg/Kg							
Aroclor-1016 [2C]	ND	0.087	mg/Kg							
Aroclor-1221	ND	0.087	mg/Kg							
Aroclor-1221 [2C]	ND	0.087	mg/Kg							
Aroclor-1232	ND	0.087	mg/Kg							
Aroclor-1232 [2C]	ND	0.087	mg/Kg							
Aroclor-1242	ND	0.087	mg/Kg							
Aroclor-1242 [2C]	ND	0.087	mg/Kg							
Aroclor-1248	ND	0.087	mg/Kg							
Aroclor-1248 [2C]	ND	0.087	mg/Kg							
Aroclor-1254	ND	0.087	mg/Kg							
Aroclor-1254 [2C]	ND	0.087	mg/Kg							
Aroclor-1260	ND	0.087	mg/Kg							
Aroclor-1260 [2C]	ND	0.087	mg/Kg							
Aroclor-1262	ND	0.087	mg/Kg							
Aroclor-1262 [2C]	ND	0.087	mg/Kg							
Aroclor-1268	ND	0.087	mg/Kg							
Aroclor-1268 [2C]	ND	0.087	mg/Kg							
Surrogate: Decachlorobiphenyl	*0.632*		mg/Kg	0.8658		73.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.719*		mg/Kg	0.8658		83.1	30-150			
Surrogate: Tetrachloro-m-xylene	*0.715*		mg/Kg	0.8658		82.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.782*		mg/Kg	0.8658		90.3	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B389477 - SW-846 3546										
LCS (B389477-BS1)				Prepared: 10/16/24 Analyzed: 10/17/24						
Aroclor-1016	0.77	0.089	mg/Kg	0.8889		86.3	40-140			
Aroclor-1016 [2C]	0.78	0.089	mg/Kg	0.8889		88.1	40-140			
Aroclor-1260	0.87	0.089	mg/Kg	0.8889		97.6	40-140			
Aroclor-1260 [2C]	0.84	0.089	mg/Kg	0.8889		95.0	40-140			
Surrogate: Decachlorobiphenyl	*0.631*		mg/Kg	0.8889		70.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.720*		mg/Kg	0.8889		81.0	30-150			
Surrogate: Tetrachloro-m-xylene	*0.744*		mg/Kg	0.8889		83.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.835*		mg/Kg	0.8889		94.0	30-150			
LCS Dup (B389477-BSD1)				Prepared: 10/16/24 Analyzed: 10/17/24						
Aroclor-1016	0.75	0.089	mg/Kg	0.8929		83.9	40-140	2.32	30	
Aroclor-1016 [2C]	0.78	0.089	mg/Kg	0.8929		87.7	40-140	0.0188	30	
Aroclor-1260	0.85	0.089	mg/Kg	0.8929		95.7	40-140	1.45	30	
Aroclor-1260 [2C]	0.84	0.089	mg/Kg	0.8929		94.4	40-140	0.188	30	
Surrogate: Decachlorobiphenyl	*0.614*		mg/Kg	0.8929		68.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.716*		mg/Kg	0.8929		80.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.733*		mg/Kg	0.8929		82.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.824*		mg/Kg	0.8929		92.2	30-150			

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MH-1 External Duct Mastic 2nd Floo

Lab Sample ID: 24J1726-01 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	27	
	2	0.000	0.000	0.000	23	16.0
Aroclor-1254	1	0.000	0.000	0.000	54	
	2	0.000	0.000	0.000	57	5.4
Aroclor-1260	1	0.000	0.000	0.000	91	
	2	0.000	0.000	0.000	94	3.2
Aroclor-1268	1	0.000	0.000	0.000	250	
	2	0.000	0.000	0.000	260	3.9

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MH-2 External Duct Mastic 3rd Floo

Lab Sample ID: 24J1726-02 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	27	
	2	0.000	0.000	0.000	26	3.8
Aroclor-1254	1	0.000	0.000	0.000	30	
	2	0.000	0.000	0.000	28	6.9
Aroclor-1260	1	0.000	0.000	0.000	2.4	
	2	0.000	0.000	0.000	3.2	28.6

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MH-3 External Duct Mastic 4th Floo

Lab Sample ID: 24J1726-03RE1 Date(s) Analyzed: 10/17/2024 10/17/2024

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	13	
	2	0.000	0.000	0.000	14	7.4
Aroclor-1254	1	0.000	0.000	0.000	14	
	2	0.000	0.000	0.000	12	15.4
Aroclor-1260	1	0.000	0.000	0.000	1.4	
	2	0.000	0.000	0.000	3.0	72.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MH-4 Block Filler 2nd Floor

Lab Sample ID: 24J1726-04 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	2.9	
	2	0.000	0.000	0.000	2.4	18.9
Aroclor-1254	1	0.000	0.000	0.000	5.8	
	2	0.000	0.000	0.000	5.5	5.3
Aroclor-1260	1	0.000	0.000	0.000	0.46	
	2	0.000	0.000	0.000	0.59	24.8

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MH-5 Block Filler 3rd Floor

Lab Sample ID: 24J1726-05 Date(s) Analyzed: 10/15/2024 10/15/2024

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	0.45	
	2	0.000	0.000	0.000	0.40	11.8
Aroclor-1254	1	0.000	0.000	0.000	0.84	
	2	0.000	0.000	0.000	0.72	16.6
Aroclor-1260	1	0.000	0.000	0.000	0.090	
	2	0.000	0.000	0.000	0.077	16.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MH-6 Block Filler 4th Floor

Lab Sample ID: 24J1726-06 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	6.0	
	2	0.000	0.000	0.000	5.1	16.2
Aroclor-1254	1	0.000	0.000	0.000	8.9	
	2	0.000	0.000	0.000	9.2	3.3
Aroclor-1260	1	0.000	0.000	0.000	0.90	
	2	0.000	0.000	0.000	1.2	28.6

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A Modified

MH-7 Tan Door Caulk South

Lab Sample ID: 24J1726-07 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	930	
	2	0.000	0.000	0.000	940	1.1
Aroclor-1254	1	0.000	0.000	0.000	220	
	2	0.000	0.000	0.000	220	0.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A Modified

MH-8 Gray Door Caulk 2nd & 4th

Lab Sample ID: 24J1726-08 Date(s) Analyzed: 10/15/2024 10/15/2024

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	560	
	2	0.000	0.000	0.000	560	0.0
Aroclor-1254	1	0.000	0.000	0.000	120	
	2	0.000	0.000	0.000	140	15.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MH-9 White Door Caulk 2nd

Lab Sample ID: 24J1726-09 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	29	
	2	0.000	0.000	0.000	32	9.8
Aroclor-1254	1	0.000	0.000	0.000	21	
	2	0.000	0.000	0.000	19	10.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MH-10 Internal Duct Mastic Rm 306

Lab Sample ID: 24J1726-10RE1 Date(s) Analyzed: 10/17/2024 10/17/2024

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	0.64	
	2	0.000	0.000	0.000	0.63	1.6
Aroclor-1254	1	0.000	0.000	0.000	2.3	
	2	0.000	0.000	0.000	2.7	16.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A Modified

MH-11 Exterior Window Caulk Uppe

Lab Sample ID: 24J1726-11

Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD3

Instrument ID (2): ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	15000	
	2	0.000	0.000	0.000	14000	6.9
Aroclor-1254	1	0.000	0.000	0.000	30000	
	2	0.000	0.000	0.000	31000	3.3

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

H-12 Exterior Window Glazing Upp

Lab Sample ID: 24J1726-12 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	1.7	
	2	0.000	0.000	0.000	1.6	6.1
Aroclor-1254	1	0.000	0.000	0.000	7.5	
	2	0.000	0.000	0.000	7.4	1.3

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A Modified

MH-13 Exterior Vent Caulk East

Lab Sample ID: 24J1726-13

Date(s) Analyzed: 10/15/2024 10/15/2024

Instrument ID (1): ECD3

Instrument ID (2): ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	33000	
	2	0.000	0.000	0.000	34000	3.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MH-14 Brick at Rear Door Left

Lab Sample ID: 24J1726-14 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	2.3	
	2	0.000	0.000	0.000	2.0	14.0
Aroclor-1254	1	0.000	0.000	0.000	22	
	2	0.000	0.000	0.000	23	4.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MH-15 Brick at Rear Door Right

Lab Sample ID: 24J1726-15 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	2.9	
	2	0.000	0.000	0.000	2.7	7.1
Aroclor-1254	1	0.000	0.000	0.000	6.2	
	2	0.000	0.000	0.000	6.2	0.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A Modified

LCS

Lab Sample ID: B389208-BS1 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	35	
	2	0.000	0.000	0.000	33	5.9
Aroclor-1260	1	0.000	0.000	0.000	37	
	2	0.000	0.000	0.000	35	5.6

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A Modified

LCS Dup

Lab Sample ID: B389208-BSD1 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	34	
	2	0.000	0.000	0.000	32	6.1
Aroclor-1260	1	0.000	0.000	0.000	35	
	2	0.000	0.000	0.000	33	5.9

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B389248-BS1 Date(s) Analyzed: 10/15/2024 10/15/2024

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.79	
	2	0.000	0.000	0.000	0.79	0.0
Aroclor-1260	1	0.000	0.000	0.000	0.89	
	2	0.000	0.000	0.000	0.91	2.2

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B389248-BSD1 Date(s) Analyzed: 10/15/2024 10/15/2024

Instrument ID (1): ECD10 Instrument ID (2): ECD10

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.75	
	2	0.000	0.000	0.000	0.74	1.3
Aroclor-1260	1	0.000	0.000	0.000	0.86	
	2	0.000	0.000	0.000	0.89	3.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

Matrix Spike

Lab Sample ID: B389248-MS1 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	5.7	
	2	0.000	0.000	0.000	5.9	3.5
Aroclor-1260	1	0.000	0.000	0.000	25	
	2	0.000	0.000	0.000	35	33.3

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

Matrix Spike Dup

Lab Sample ID: B389248-MSD1 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	4.1	
	2	0.000	0.000	0.000	4.3	4.8
Aroclor-1260	1	0.000	0.000	0.000	11	
	2	0.000	0.000	0.000	16	37.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B389358-BS1 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	2.8	
	2	0.000	0.000	0.000	3.1	10.2
Aroclor-1260	1	0.000	0.000	0.000	3.2	
	2	0.000	0.000	0.000	3.3	3.1

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B389358-BSD1 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	2.9	
	2	0.000	0.000	0.000	3.1	3.3
Aroclor-1260	1	0.000	0.000	0.000	3.3	
	2	0.000	0.000	0.000	3.3	0.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B389477-BS1 Date(s) Analyzed: 10/17/2024 10/17/2024

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.77	
	2	0.000	0.000	0.000	0.78	1.3
Aroclor-1260	1	0.000	0.000	0.000	0.87	
	2	0.000	0.000	0.000	0.84	3.5

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B389477-BSD1 Date(s) Analyzed: 10/17/2024 10/17/2024

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.75	
	2	0.000	0.000	0.000	0.78	3.9
Aroclor-1260	1	0.000	0.000	0.000	0.85	
	2	0.000	0.000	0.000	0.84	2.4

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
MS-21	Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA

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Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2025
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2025
NC	North Carolina Div. of Water Quality	652	12/31/2024
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2024
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2025

con-test ANALYTICAL LABORATORY

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Fax: 413-525-6405
Email: info@contestlabs.com

2457726 http://www.contestlabs.com JZR Doc # 379 Rev 1_03242017

CHAIN OF CUSTODY RECORD (North Carolina)

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Matrix Health & Safety Consultants, LLC
Address: 2900 Yonkers Road Raleigh
Phone: 919.833.2520

Project Name: NCSU Mann Hall Raleigh, NC
Address: 2900 Yonkers Road Raleigh
Project Number:
Project Manager: Gregg E. Heppert
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By: Gregg E. Heppert

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: ☑ 5 day TAT

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To:
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	PCB in Bulk	# of Containers	[2] Preservation Code	[3] Container Code
1	MH-1 External Duct Mastic 2nd Floor	10/8/2024	1600	X				X			
2	MH-2 External Duct Mastic 3rd Floor	10/8/2024	1610	X				X			
3	MH-3 External Duct Mastic 4th Floor	10/8/2024	1615	X				X			
4	MH-4 Block Filler 2nd Floor	10/8/2024	1622	X				X			
5	MH-5 Block Filler 3rd Floor	10/8/2024	1630	X				X			
6	MH-6 Block Filler 4th Floor	10/8/2024	1639	X				X			
7	MH-7 Tan Door Caulk South (Sticky)	10/8/2024	1730	X				X			
8	MH-8 Gray Door Caulk 2nd and 4th	10/8/2024	1733	X				X			
9	MH-9 White Door Caulk 2nd	10/8/2024	1740	X				X			
10	MH-10 Internal Duct Mastic Rm. 306	10/8/2024	1745	X				X			

Dissolved Metals Samples
☐ Field Filtered
☐ Lab to Filter

Orthophosphate Samples
☐ Field Filtered
☐ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Gregg@matrixhsc.com

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 1104 10/9/2024	
Received by: (signature) PACE	Date/Time: 1104 10/9/24	
Relinquished by: (signature)	Date/Time:	
Received by: (signature) 1.0	Date/Time: 10/10/24 950	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

North Carolina Detection Limit Requirements
☐ 2L
☐ GWPC
☐ SWSL
☐ IHSB
☐ MSCC
Other:

Program Information
☐ DSCA ☐ UST/Trust Fund
☐ SWS Landfill ☐ REC
☐ IHSB Orphaned Landfill
☐ State Lead
☐ Other:

NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality
☐ Federal ☐ Brownfield
☐ City ☐ School

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

24J1726 http://www.contestlabs.com JZR Doc # 379 Rev 1_03242017

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CHAIN OF CUSTODY RECORD (North Carolina)

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Matrix Health & Safety Consultants, LLC
Address: 2900 Yonkers Road Raleigh
Phone: 919.833.2520

Project Name: NCSU Mann Hall Raleigh, NC
Address: 2900 Yonkers Road Raleigh
Project Number:
Project Manager: Gregg E. Heppert
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By: Gregg E. Heppert

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: ☑ 5 day TAT

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To:
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	PCB in Bulk	# of Containers	[2] Preservation Code	[3] Container Code
11	MH-11 Exterior Window Caulk Upper	10/8/2024	1755	X				X			
12	MH-12 Exterior Window Glazing Upper	10/8/2024	1757	X				X			
13	MH-13 Exterior Vent Caulk East	10/8/2024	1809	X				X			
14	MH-14 Brick at Rear Door Left	10/8/2024	1700	X				X			
15	MH-15 Brick at Rear Door Right	10/8/2024	1710	X				X			

Dissolved Metals Samples
☐ Field Filtered
☐ Lab to Filter

Orthophosphate Samples
☐ Field Filtered
☐ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Gregg@matrixhsc.com

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 1104 10/9/2024	
Received by: (signature) PACE	Date/Time: 1104 10/9/24	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time: 10/10/24	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

North Carolina Detection Limit Requirements
☐ 2L
☐ GWPC
☐ SWSL
☐ IHSB
☐ MSCC
Other:

Program Information
☐ DSCA ☐ UST/Trust Fund
☐ SWS Landfill ☐ REC
☐ IHSB Orphaned Landfill
☐ State Lead
☐ Other:

NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality
☐ Federal ☐ Brownfield
☐ City ☐ School

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

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DELIVERED

Thursday

10/10/24 at 9:50 AM

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Delivered

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☆ ☆ ☆ ☆ ☆

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Contestlab39

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TRACKING ID

779127842011

FROM
RALEIGH, NC US

Label Created
10/9/24 10:12 AM

WE HAVE YOUR PACKAGE
RALEIGH, NC
10/9/24 4:16 PM

ON THE WAY
WINDSOR LOCKS, CT
10/10/24 7:59 AM

OUT FOR DELIVERY
WINDSOR LOCKS, CT
10/10/24 8:35 AM

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0001 v08_Sample Receiving Checklist
	Effective Date: 06/11/2024

Log In Back-Sheet

Client: Matrix Health & Safety
Project: NCSU Mann Hall
MCP/RCP Required: no
Deliverable Package Requirement: none
Location: Raleigh, NC
PWSID# (When Applicable): n/a
Arrival Method:

Courier ☐ Fed Ex ☑ Walk In ☐ Other ☐

Received By / Date / Time: RL 10/10/24 0950
Back-Sheet By / Date / Time: Mam 10/11/24 0434
Temperature Method: Gun # 4
WV samples: Yes (see note*) / No (follow normal procedure)
Temp < 6° C Actual Temperature: 1.8
Rush Samples: Yes / No Notify: No
Short Hold: Yes / No Notify: No

Notes regarding Samples/COC outside of SOP:

* No labels... IDs written on Falcon Tube caps

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy) Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	☑	☐
Received in Cooler	☑	☐
Custody Seal: DATE TIME	☐	☑
COC Relinquished	☑	☐
COC/Samples Labels Agree	☐ see notes	☑
All Samples in Good Condition	☑	☐
Samples Received within Holding Time	☑	☐
Is there enough Volume	☑	☐
Proper Media/Container Used	☑	☐
Splitting Samples Required	☐	☑
MS/MSD	☐	☑
Trip Blanks	☐	☑
Lab to Filters	☐	☑
COC Legible	☑	☐

COC Included: (Check all included)

Client ☑ Analysis ☑ Sampler Name ☑
Project ☑ IDs ☑ Collection Date/Time ☑

All Samples Proper pH: N/A ☐ ☐

Additional Container Notes

Note: West Virginia requires all samples to have their temperature taken. Note any outliers.

Qualtrax ID: 120836

Quaitrax ID: 120836

Sample	Soils Jars (Circle Amb/Clear)				Ambers					Plastics										VOA Vials					Other / Fill in					
	16oz Amb/Clear	8oz Amb/Clear	4oz Amb/Clear	2oz Amb/Clear	1 Liter		250mL		100mL	1 Liter		500mL		250mL						Unpreserved	HCl	MeOH	D.I. Water	Bisulfate	Col/Bact					
					Unpreserved	HCL	Sulfuric	Sulfuric	Phosphoric	HCl	Unpreserved	Unpreserved	Sulfuric	Unpreserved	Sulfuric	Trizma	Nitric	NaOH	Ammonium Acetate	NaOH/Zinc										
1																										Folom Tit				
2																														
3																														
4																														
5																														
6																														
7																														
8																														
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20																														

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0001 v08_Sample Receiving Checklist
	Effective Date: 06/11/2024

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October 17, 2024

Gregg Heppert
Matrix Health & Safety Consultants, LLC
2900 Yonkers Road
Raleigh, NC 27604

Project Location: Raleigh, NC
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 24J1725

Enclosed are results of analyses for samples as received by the laboratory on October 11, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jordan Zoe Ross
Project Manager

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Matrix Health & Safety Consultants, LLC
2900 Yonkers Road
Raleigh, NC 27604
ATTN: Gregg Heppert

REPORT DATE: 10/17/2024

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24J1725

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Raleigh, NC

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MHW-1 Basement Duct Internal	24J1725-01	Wipe		SW-846 8082A	
MHW-2 Duct Internal Rm 306	24J1725-02	Wipe		SW-846 8082A	
MHW-3 Internally Lined Duct Rm 306	24J1725-03	Wipe		SW-846 8082A	
MHW-4 Duct Internal Room 207	24J1725-04	Wipe		SW-846 8082A	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1725

Date Received: 10/11/2024

Field Sample #: MHW-1 Basement Duct Internal | Sampled: 10/8/2024 14:30

Sample ID: 24J1725-01

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	0.049	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:26	MEW
Aroclor-1221 [1]	ND	0.20	0.093	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:26	MEW
Aroclor-1232 [1]	ND	0.20	0.049	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:26	MEW
Aroclor-1242 [1]	ND	0.20	0.055	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:26	MEW
Aroclor-1248 [2]	0.45	0.20	0.050	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:26	MEW
Aroclor-1254 [2]	0.62	0.20	0.076	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:26	MEW
Aroclor-1260 [1]	0.24	0.20	0.042	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:26	MEW
Aroclor-1262 [1]	ND	0.20	0.052	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:26	MEW
Aroclor-1268 [1]	ND	0.20	0.053	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:26	MEW

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.3	30-150		10/16/24 16:26
Decachlorobiphenyl [2]	81.1	30-150		10/16/24 16:26
Tetrachloro-m-xylene [1]	76.8	30-150		10/16/24 16:26
Tetrachloro-m-xylene [2]	77.5	30-150		10/16/24 16:26

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1725

Date Received: 10/11/2024

Field Sample #: MHW-2 Duct Internal Rm 306 | Sampled: 10/8/2024 14:39

Sample ID: 24J1725-02

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	0.049	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:43	MEW
Aroclor-1221 [1]	ND	0.20	0.093	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:43	MEW
Aroclor-1232 [1]	ND	0.20	0.049	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:43	MEW
Aroclor-1242 [1]	ND	0.20	0.055	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:43	MEW
Aroclor-1248 [2]	0.30	0.20	0.050	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:43	MEW
Aroclor-1254 [1]	1.2	0.20	0.060	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:43	MEW
Aroclor-1260 [1]	0.55	0.20	0.042	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:43	MEW
Aroclor-1262 [1]	ND	0.20	0.052	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:43	MEW
Aroclor-1268 [1]	ND	0.20	0.053	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 16:43	MEW

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	85.2	30-150		10/16/24 16:43
Decachlorobiphenyl [2]	82.1	30-150		10/16/24 16:43
Tetrachloro-m-xylene [1]	77.3	30-150		10/16/24 16:43
Tetrachloro-m-xylene [2]	77.9	30-150		10/16/24 16:43

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1725

Date Received: 10/11/2024

Field Sample #: MHW-3 Internally Lined Duct Rm 306 | Sampled: 10/8/2024 14:50

Sample ID: 24J1725-03

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	0.049	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:00	MEW
Aroclor-1221 [1]	ND	0.20	0.093	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:00	MEW
Aroclor-1232 [1]	ND	0.20	0.049	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:00	MEW
Aroclor-1242 [1]	ND	0.20	0.055	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:00	MEW
Aroclor-1248 [1]	ND	0.20	0.048	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:00	MEW
Aroclor-1254 [1]	0.15	0.20	0.060	µg/Wipe	1	J	SW-846 8082A	10/15/24	10/16/24 17:00	MEW
Aroclor-1260 [1]	0.094	0.20	0.042	µg/Wipe	1	J	SW-846 8082A	10/15/24	10/16/24 17:00	MEW
Aroclor-1262 [1]	ND	0.20	0.052	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:00	MEW
Aroclor-1268 [1]	ND	0.20	0.053	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:00	MEW

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	84.2	30-150		10/16/24 17:00
Decachlorobiphenyl [2]	81.6	30-150		10/16/24 17:00
Tetrachloro-m-xylene [1]	77.6	30-150		10/16/24 17:00
Tetrachloro-m-xylene [2]	78.7	30-150		10/16/24 17:00

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Project Location: Raleigh, NC | Sample Description: | Work Order: 24J1725

Date Received: 10/11/2024

Field Sample #: MHW-4 Duct Internal Room 207 | Sampled: 10/8/2024 14:55

Sample ID: 24J1725-04

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	0.049	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:18	MEW
Aroclor-1221 [1]	ND	0.20	0.093	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:18	MEW
Aroclor-1232 [1]	ND	0.20	0.049	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:18	MEW
Aroclor-1242 [1]	ND	0.20	0.055	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:18	MEW
Aroclor-1248 [1]	ND	0.20	0.048	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:18	MEW
Aroclor-1254 [2]	1.4	0.20	0.076	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:18	MEW
Aroclor-1260 [2]	0.38	0.20	0.053	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:18	MEW
Aroclor-1262 [1]	ND	0.20	0.052	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:18	MEW
Aroclor-1268 [1]	ND	0.20	0.053	µg/Wipe	1		SW-846 8082A	10/15/24	10/16/24 17:18	MEW

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	87.7	30-150		10/16/24 17:18
Decachlorobiphenyl [2]	84.2	30-150		10/16/24 17:18
Tetrachloro-m-xylene [1]	76.9	30-150		10/16/24 17:18
Tetrachloro-m-xylene [2]	77.7	30-150		10/16/24 17:18

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Sample Extraction Data

Prep Method:SW-846 3546 **Analytical Method:SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [Wipe]	Final [mL]	Date
24J1725-01 [MHW-1 Basement Duct Internal]	B389328	1.00	10.0	10/15/24
24J1725-02 [MHW-2 Duct Internal Rm 306]	B389328	1.00	10.0	10/15/24
24J1725-03 [MHW-3 Internally Lined Duct Rm 306]	B389328	1.00	10.0	10/15/24
24J1725-04 [MHW-4 Duct Internal Room 207]	B389328	1.00	10.0	10/15/24

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B389328 - SW-846 3546										
Blank (B389328-BLK1)				Prepared: 10/15/24 Analyzed: 10/16/24						
Aroclor-1016	ND	0.20	µg/Wipe							
Aroclor-1016 [2C]	ND	0.20	µg/Wipe							
Aroclor-1221	ND	0.20	µg/Wipe							
Aroclor-1221 [2C]	ND	0.20	µg/Wipe							
Aroclor-1232	ND	0.20	µg/Wipe							
Aroclor-1232 [2C]	ND	0.20	µg/Wipe							
Aroclor-1242	ND	0.20	µg/Wipe							
Aroclor-1242 [2C]	ND	0.20	µg/Wipe							
Aroclor-1248	ND	0.20	µg/Wipe							
Aroclor-1248 [2C]	ND	0.20	µg/Wipe							
Aroclor-1254	ND	0.20	µg/Wipe							
Aroclor-1254 [2C]	ND	0.20	µg/Wipe							
Aroclor-1260	ND	0.20	µg/Wipe							
Aroclor-1260 [2C]	ND	0.20	µg/Wipe							
Aroclor-1262	ND	0.20	µg/Wipe							
Aroclor-1262 [2C]	ND	0.20	µg/Wipe							
Aroclor-1268	ND	0.20	µg/Wipe							
Aroclor-1268 [2C]	ND	0.20	µg/Wipe							
Surrogate: Decachlorobiphenyl	*1.34*		µg/Wipe	2.000		67.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.29*		µg/Wipe	2.000		64.3	30-150			
Surrogate: Tetrachloro-m-xylene	*1.21*		µg/Wipe	2.000		60.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.21*		µg/Wipe	2.000		60.7	30-150			
LCS (B389328-BS1)				Prepared: 10/15/24 Analyzed: 10/16/24						
Aroclor-1016	0.32	0.20	µg/Wipe	0.5000		63.2	40-140			
Aroclor-1016 [2C]	0.31	0.20	µg/Wipe	0.5000		61.3	40-140			
Aroclor-1260	0.35	0.20	µg/Wipe	0.5000		69.6	40-140			
Aroclor-1260 [2C]	0.32	0.20	µg/Wipe	0.5000		64.2	40-140			
Surrogate: Decachlorobiphenyl	*1.29*		µg/Wipe	2.000		64.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.24*		µg/Wipe	2.000		61.8	30-150			
Surrogate: Tetrachloro-m-xylene	*1.16*		µg/Wipe	2.000		58.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.17*		µg/Wipe	2.000		58.7	30-150			
LCS Dup (B389328-BSD1)				Prepared: 10/15/24 Analyzed: 10/16/24						
Aroclor-1016	0.38	0.20	µg/Wipe	0.5000		76.7	40-140	19.3	30	
Aroclor-1016 [2C]	0.36	0.20	µg/Wipe	0.5000		72.8	40-140	17.2	30	
Aroclor-1260	0.41	0.20	µg/Wipe	0.5000		82.0	40-140	16.4	30	
Aroclor-1260 [2C]	0.38	0.20	µg/Wipe	0.5000		75.1	40-140	15.7	30	
Surrogate: Decachlorobiphenyl	*1.51*		µg/Wipe	2.000		75.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.45*		µg/Wipe	2.000		72.3	30-150			
Surrogate: Tetrachloro-m-xylene	*1.39*		µg/Wipe	2.000		69.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.40*		µg/Wipe	2.000		70.2	30-150			

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MHW-1 Basement Duct Internal

Lab Sample ID: 24J1725-01 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	0.40	
	2	0.000	0.000	0.000	0.45	11.8
Aroclor-1254	1	0.000	0.000	0.000	0.60	
	2	0.000	0.000	0.000	0.62	3.3
Aroclor-1260	1	0.000	0.000	0.000	0.24	
	2	0.000	0.000	0.000	0.20	18.2

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MHW-2 Duct Internal Rm 306

Lab Sample ID: 24J1725-02 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1248	1	0.000	0.000	0.000	0.29	
	2	0.000	0.000	0.000	0.30	3.4
Aroclor-1254	1	0.000	0.000	0.000	1.2	
	2	0.000	0.000	0.000	1.1	8.7
Aroclor-1260	1	0.000	0.000	0.000	0.55	
	2	0.000	0.000	0.000	0.47	15.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

IHW-3 Internally Lined Duct Rm 30(

Lab Sample ID: 24J1725-03

Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD3

Instrument ID (2): ECD3

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.15	
	2	0.000	0.000	0.000	0.14	6.9
Aroclor-1260	1	0.000	0.000	0.000	0.094	
	2	0.000	0.000	0.000	0.081	14.9

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

MHW-4 Duct Internal Room 207

Lab Sample ID: 24J1725-04 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	1.3	
	2	0.000	0.000	0.000	1.4	7.4
Aroclor-1260	1	0.000	0.000	0.000	0.38	
	2	0.000	0.000	0.000	0.38	0.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B389328-BS1 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.32	
	2	0.000	0.000	0.000	0.31	3.2
Aroclor-1260	1	0.000	0.000	0.000	0.35	
	2	0.000	0.000	0.000	0.32	9.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B389328-BSD1 Date(s) Analyzed: 10/16/2024 10/16/2024

Instrument ID (1): ECD3 Instrument ID (2): ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.38	
	2	0.000	0.000	0.000	0.36	5.4
Aroclor-1260	1	0.000	0.000	0.000	0.41	
	2	0.000	0.000	0.000	0.38	7.6

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,NC,ME,VA,PA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221	CT,NH,NY,NC,ME,VA,PA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232	CT,NH,NY,NC,ME,VA,PA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242	CT,NH,NY,NC,ME,VA,PA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248	CT,NH,NY,NC,ME,VA,PA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254	CT,NH,NY,NC,ME,VA,PA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260	CT,NH,NY,NC,ME,VA,PA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA,PA
Aroclor-1262	NH,NY,NC,ME,VA,PA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA,PA
Aroclor-1268	NH,NY,NC,ME,VA,PA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA,PA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2025
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2025
NC	North Carolina Div. of Water Quality	652	12/31/2024
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2024
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2025

24J1725

http://www.contestlabs.com Doc # 379 Rev 1_03242017

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD (North Carolina)

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

Company Name: Matrix Health & Safety Consultants, LLC
Address: 2900 Yonkers Road Raleigh
Phone: 919.833.2520

Project Name: NCSU Mann Hall Raleigh, NC
Address: 2900 Yonkers Road Raleigh
Project Number:
Project Manager: Gregg E. Heppert
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By: Gregg E. Heppert

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: ☑ 5 day TAT

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To:
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	PCB Wipes	# of Containers	[2] Preservation Code	[3] Container Code
1	MHW-1 Basement Duct Internal	10/8/2024	1430	100cm2 Wipe				X			
2	MHW-2 Duct Internal Rm. 306	10/8/2024	1439	100cm2 Wipe				X			
3	MHW-3 Internally Lined Duct Rm 306	10/8/2024	1450	100cm2 Wipe				X			
4	MHW-4 Duct Internal Room 207	10/8/2024	1455	100cm2 Wipe				X			

Dissolved Metals Samples
☐ Field Filtered
☐ Lab to Filter

Orthophosphate Samples
☐ Field Filtered
☐ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Gregg@matrixhsc.com

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 1103 10/9/2024	
Received by: (signature)	Date/Time: 1103 10/9/24	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time: 10/10/24 950	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

North Carolina Detection Limit Requirements
☐ 2L
☐ GWPC
☐ SWSL
☐ IHSB
☐ MSCC
Other:

Program Information
☐ DSCA ☐ UST/Trust Fund
☐ SWS Landfill ☐ REC
☐ IHSB Orphaned Landfill
☐ State Lead
☐ Other:

NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality
☐ Federal ☐ Brownfield
☐ City ☐ School

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

FedEx Sign Up or Log In

⚠ Learn about the impacts of Hurricane Helene and Hurricane Milton on FedEx services.

FedEx® Tracking Track Another Shipment Local Scan Time Help

DELIVERED

Thursday

10/10/24 at 9:50 AM

Signed for by: L.ARROYO

Obtain proof of delivery

DELIVERY STATUS

Delivered

Report missing package

How was your delivery?

☆ ☆ ☆ ☆ ☆

ADD YOUR EMAIL TO STAY UPDATED ON THIS SHIPMENT

Contestlab39

✖ Your email is invalid.

GET UPDATES

MORE OPTIONS

TRACKING ID

779127842011

FROM
RALEIGH, NC US

Label Created
10/9/24 10:12 AM

WE HAVE YOUR PACKAGE
RALEIGH, NC
10/9/24 4:16 PM

ON THE WAY
WINDSOR LOCKS, CT
10/10/24 7:59 AM

OUT FOR DELIVERY
WINDSOR LOCKS, CT
10/10/24 8:35 AM

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0001 v08_Sample Receiving Checklist
	Effective Date: 06/11/2024

Log In Back-Sheet

Client: Matrix Health & Safety
Project: NCSU Mann Hall
MCP/RCP Required: no
Deliverable Package Requirement: none
Location: Raleigh, NC
PWSID# (When Applicable): n/a
Arrival Method:
Courier ☐ Fed Ex ☑ Walk In ☐ Other ☐
Received By / Date / Time: RL 10/10/24 0950
Back-Sheet By / Date / Time: Mon 10/14/24 0428
Temperature Method: Gun # 4
WV samples: Yes (see note*) / No (follow normal procedure)
Temp < 6° C Actual Temperature: 1.0
Rush Samples: Yes / No Notify: No
Short Hold: Yes / No Notify: No

Notes regarding Samples/COC outside of SOP:

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy) Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	☑	☐
Received in Cooler	☑	☐
Custody Seal: DATE TIME	☐	☑
COC Relinquished	☑	☐
COC/Samples Labels Agree	☑	☐
All Samples in Good Condition	☑	☐
Samples Received within Holding Time	☑	☐
Is there enough Volume	☑	☐
Proper Media/Container Used	☑	☐
Splitting Samples Required	☐	☑
MS/MSD	☐	☑
Trip Blanks	☐	☑
Lab to Filters	☐	☑
COC Legible	☑	☐

COC Included: (Check all included)
Client ☑ Analysis ☑ Sampler Name ☑
Project ☑ IDs ☑ Collection Date/Time ☑

All Samples Proper pH: (N/A) ☐ ☐

Additional Container Notes

**Note: West Virginia requires all samples to have their temperature taken. Note any outliers.*

Hx wipe x4

Qualtrax ID: 120836

Sample	Soils Jars (Circle Amb/Clear)				Ambers					Plastics													Other / Fill in						VOA Vials					Col/Bact
	16oz Amb/Clear	8oz Amb/Clear	4oz Amb/Clear	2oz Amb/Clear	1 Liter			250mL		100mL	1 Liter		500mL		250mL																			
					Unpreserved	HCL	Sulfuric	Sulfuric	Phosphoric	HCl	Unpreserved	Unpreserved	Sulfuric	Unpreserved	Trizma	Sulfuric	Nitric	NaOH	Ammonium Acetate	NaOH/Zinc	Unpreserved	HCl	MeOH	D.I. Water	Bisulfate							
1			1																														
2			1																														
3			1																														
4			1																														
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Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-ELON-0001 v08_Sample Receiving Checklist
	Effective Date: 06/11/2024

March 22, 2024

Matrix Health & Safety Consultants
2900 Yonkers Road
Raleigh, NC 27604

CLIENT PROJECT: Mann Hall NCSU
CEI LAB CODE: B245672

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on March 22, 2024. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

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

Kind Regards,

Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP TESTING
NVLAP LAB CODE 101768-0

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ASBESTOS ANALYTICAL REPORT
By: Polarized Light Microscopy

Prepared for

Matrix Health & Safety Consultants

CLIENT PROJECT: Mann Hall NCSU

LAB CODE: B245672

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 03/22/24

TOTAL SAMPLES ANALYZED: 9

SAMPLES >1% ASBESTOS:

730 SE Maynard Road • Cary, NC 27511 • 919.481.1413

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Mann Hall NCSU

LAB CODE: B245672

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
MHC-1		B245672.01	Tan,White	Door Caulking	None Detected
MHC-2		B245672.02	Tan,White	Door Caulking	None Detected
MHC-3		B245672.03	Tan,White	Door Caulking	None Detected
MHC-4		B245672.04	Tan,White	Door Caulking	None Detected
MHC-5	Layer 1	B245672.05	Tan,White	Door Caulking	None Detected
	Layer 2	B245672.05	Gray	Door Caulking	None Detected
MHC-6		B245672.06	Gray	Door Caulking	None Detected
MHC-7		B245672.07	Gray	Door Caulking	None Detected
MHC-8		B245672.08		No Sample Present in Sample Container	
MHC-9		B245672.09	White	Door Caulking	None Detected
MHC-10		B245672.10	White	Door Caulking	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Matrix Health & Safety Consultants
2900 Yonkers Road
Raleigh, NC 27604

Lab Code: B245672
Date Received: 03-22-24
Date Analyzed: 03-22-24
Date Reported: 03-22-24

Project: Mann Hall NCSU

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous	Non-Fibrous		ASBESTOS %
MHC-1 B245672.01	Door Caulking	Heterogeneous Tan,White Non-fibrous Bound		100% <1%	Caulk Paint	None Detected
MHC-2 B245672.02	Door Caulking	Heterogeneous Tan,White Non-fibrous Bound		100% <1%	Caulk Paint	None Detected
MHC-3 B245672.03	Door Caulking	Heterogeneous Tan,White Non-fibrous Bound		100% <1%	Caulk Paint	None Detected
MHC-4 B245672.04	Door Caulking	Heterogeneous Tan,White Non-fibrous Bound		100% <1%	Caulk Paint	None Detected
MHC-5 Layer 1 B245672.05	Door Caulking	Heterogeneous Tan,White Non-fibrous Bound		100% <1%	Caulk Paint	None Detected
Layer 2 B245672.05	Door Caulking	Heterogeneous Gray Non-fibrous Bound		100% <1%	Caulk Paint	None Detected
MHC-6 B245672.06	Door Caulking	Heterogeneous Gray Non-fibrous Bound		100%	Caulk	None Detected

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ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Matrix Health & Safety Consultants
2900 Yonkers Road
Raleigh, NC 27604

Lab Code: B245672
Date Received: 03-22-24
Date Analyzed: 03-22-24
Date Reported: 03-22-24

Project: Mann Hall NCSU

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous	Non-Fibrous		ASBESTOS %
MHC-7 B245672.07	Door Caulking	Heterogeneous Gray Non-fibrous Bound		100%	Caulk	None Detected
MHC-8 B245672.08	No Sample Present in Sample Container					
MHC-9 B245672.09	Door Caulking	Heterogeneous White Non-fibrous Bound		100% <1%	Caulk Paint	None Detected
MHC-10 B245672.10	Door Caulking	Heterogeneous White Non-fibrous Bound		100% <1%	Caulk Paint	None Detected

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LEGEND:
Non-Anth = Non-Asbestiform Anthophyllite
Non-Trem = Non-Asbestiform Tremolite
Calc Carb = Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORTING LIMIT: <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

REGULATORY LIMIT: >1% by weight

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID and sample description.

ANALYST: Jacob Cox

APPROVED BY: Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP TESTING
NVLAP LAB CODE 101768-0

10

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CHAIN OF CUSTODY

730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

LAB USE ONLY:
CEI Lab Code: B245672
CEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #:	Job Contact: Gregg E. Heppert
Company: Matrix Health & Safety Consultants, LLC	Email / Tel: 919.868.2154
Address: 2900 Yonker s Road	Project Name: Mann Hall NCSU
Raleigh, NC 27604	Project ID#:
Email: gregg@matrixhsc.com	PO #:
Tel: 919.833.25250 Fax:	STATE SAMPLES COLLECTED IN: NC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

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

REMARKS / SPECIAL INSTRUCTIONS: 3/21/24

☒ Accept Samples
☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
	3/22/24		03/22/24 9:40

Samples will be disposed of 30 days after analysis

drop-off

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: Matrix Health & Safety Consultants, LLC	Job Contact: Gregg E. Heppert
Project Name: Mann Hall NCSU	
Project ID #:	Tel: 919.868.2154

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
MHC-1	Tan Door Caulking 2nd Floor Stair West		PLM [X]	TEM [ ]
MHC-2	Tan " " Room 320		PLM [ ]	TEM [ ]
MHC-3	Tan " " Room 301		PLM [ ]	TEM [ ]
MHC-4	Tan " " Room 430		PLM [ ]	TEM [ ]
MHC-5	Tan and Gray " " Room 414		PLM [ ]	TEM [ ]
MHC-6	Gray Door Caulk Room 201		PLM [ ]	TEM [ ]
MHC-7	Gray Door Caulk Room 400		PLM [ ]	TEM [ ]
MHC-8	Gray Door Caulk Room 404		PLM [ ]	TEM [ ]
MHC-9	White Door Caulk Room 212		PLM [ ]	TEM [ ]
MHC-10	White Door Caulk Room 217		PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
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Limited XRF Lead-Based Paint Inspection

March 24, 2024

Conducted At:
North Carolina State University
Mann Hall

Prepared For:
NC State University
Design & Construction
Box 7520
2601 Wolf Village Way
Raleigh, North Carolina 27695-7520
Attn: Mike Bell, PMP, PEM

Provided by:
Matrix Health & Safety Consultants, L.L.C.
NC Certified Lead-Based Paint Firm No. FPB-00122
Brian A. Gustafson: NC Certified Lead-Based Paint Risk Assessor No. 120100

Matrix Job #240351

PROJECT INFORMATION

Matrix Health & Safety Consultants, L.L.C. (Matrix) is pleased to present this report of the limited survey to identify lead-based paint in Mann Hall located on the campus of North Carolina State University, in Raleigh, North Carolina. This inspection report includes analytical methods and limitations, discussion of XRF procedures and summary of findings.

Brian A. Gustafson (NC Certified Lead-Based Paint Risk Assessor No. 120100) performed the limited lead-based paint survey at the subject building on March 22, 2024. Only the interior of the building was included in the limited survey.

INSPECTION PROCEDURES

The Lead-Based Paint (LBP) survey began with our inspector/risk assessor walking the subject area and determining testing combinations and test locations. After the testing strategy was determined, Matrix used a Viken Pb200i Lead Paint Spectrum Analyzer (XRF) to determine the lead content (mg/cm2) of painted surfaces/components in the subject area. For the purpose of this survey, paints or components with concentrations of **1.0 mg/cm2 or greater** were considered lead-based.

LEAD-BASED PAINT SURVEY RESULTS

Below you will find a chart summarizing identified lead-based paints with concentrations greater than or equal to 1.0 mg/cm2 at Mann Hall. However, detectable lead quantities less than 1.0 mg/cm^2 may constitute a lead dust hazard even though it is not a lead-based paint as defined by Federal Standards. For a list of all surfaces tested and XRF results, refer to the attached XRF Testing Report.

NCSU – Mann Hall (XRF) Interior Results

COMPONENT	SUBSTRATE	COLOR	LOCATION	LEAD CONTENT (mg/cm2)	CONDITION
Baseboards	Ceramic	Gray	Throughout	1.3-1.7	Intact
Elevator Door	Metal	White	Hallway (all floors)	1.3-1.4	Intact
Railings	Metal	Red	Stairwells and West Entry	1.0-6.4	Intact
Stair Riser and Stringer	Metal	Red	Stairwells	2.8-8.1	Intact
Railings	**Metal**	**Gray**	**Room 100 and Room 111**	**2.3-16.8**	**Intact-Deteriorated**
I-Beams / Structural Steel	Metal	Red / Yellow	Room 100	1.0	Intact

RECOMMENDATIONS

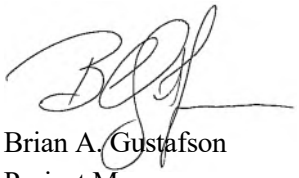
Additionally, Matrix recommends that activities that cause the disturbance of lead-based components be performed by North Carolina Certified workers and supervisors. The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard states that "negative" readings (i.e. those below the HUD/EPA definition of what constitutes LBP [1.0 mg/cm2] **does not** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead free. Although a reading may indicate "negative", airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible exposure limit (PEL) depending on the work activity. For additional information including removal requirements and worker protection refer to OSHA Standard 29 CFR 1926.62.

QUALIFICATIONS

This report summarizes Matrix's evaluation of the conditions observed at the subject property during the course of the limited survey to identify lead-based paints. Our findings are based upon our observations at the property and XRF testing performed at the time of this survey. Additional lead-based paints/components may exist in other portions of the subject area but were undetected due to inaccessibility or due to an imperceptible change in paints. Any conditions discovered which deviate from the data contained in this report should be presented to us for our evaluation. This survey was not performed in order to meet requirements for lead-based paint inspections for target housing or child occupied facilities.

Matrix appreciates the opportunity to have provided these services. We would be glad to discuss any of the results contained in this report, at your convenience. If there are any questions concerning this report or results, please contact us.

Sincerely,
MATRIX HEALTH AND SAFETY CONSULTANTS, L.L.C.



Brian A. Gustafson
Project Manager
NC Certified Lead-Based Paint Risk Assessor No. 120100

XRF Testing Report

Lead-Based Paint Inspection Report

Matrix Health & Safety Consultants,
LLC
2900 Yonkers Road
Raleigh, NC 27604

INSPECTION SITE:	North Carolina State University Mann Hall
INSPECTION DATE:	3/22/2024 - 3/22/2024
INSTRUMENT TYPE:	Viken Detection Pb200i XRF Lead Paint Analyzer 3100
ACTION LEVEL:	1.0 (mg/cm²)
STATEMENT:	Brian A. Gustafson NC#120100

Lead-Based Paint Inspection Report

Inspection Date:	3/22/2024 - 3/22/2024	Inspection Site:	North Carolina State University Mann Hall
Action Level:	1.0 (mg/cm²)		
Total Readings:	25		
Unit Started:	03/22/2024 09:38:41		
Unit Ended:	03/22/2024 11:04:59		

Read #	Result	RTA Present	COMPONENT	SUBSTRATE	SIDE	CONDITION	Color	Floor	ROOM	Lead (mg/cm²)	Mode
1 (CAL)		Off			Calibration					1.0 mg/cm²	Action Level
3 (CAL)		Off			Calibration					1.0 mg/cm²	Action Level
7	Positive	Off	BaseBoard	Ceramic	C	Intact	Gray	First	Hall	1.4 mg/cm²	Action Level
14	Positive	Off	elevator door	Metal	D	Intact	White	First	Hall	1.4 mg/cm²	Action Level
17	Positive	Off	BaseBoard	Ceramic	B	Intact	Gray	First	Hall	1.7 mg/cm²	Action Level
24	Positive	Off	Railing	Metal	A	Intact	Red	First	Hall	6.4 mg/cm²	Action Level
33	Positive	Off	BaseBoard	Ceramic	D	Intact	Gray	First	Hall	1.5 mg/cm²	Action Level
48	Positive	Off	Railing	Metal	B	Intact	Red	First	Stairwel	1.0 mg/cm²	Action Level
49	Positive	Off	Riser	Metal	B	Intact	Red	First	Stairwell	8.1 mg/cm²	Action Level
50	Positive	Off	Stringer	Metal	B	Intact	Red	First	Stairwel	2.8 mg/cm²	Action Level
55	Positive	Off	Door Lintel	Metal	B	Intact	Red	First	Hall	6.8 mg/cm²	Action Level
62	Positive	Off	BaseBoard	Ceramic	B	Intact	Gray	First	114	1.4 mg/cm²	Action Level
65	Positive	Off	Railing	Metal	A	Deteriorated	Gray	First	111	2.3 mg/cm²	Action Level
67	Positive	Off	Railing	Metal	C	Intact	Gray	First	100	16.8 mg/cm²	Action Level
68	Positive	Off	ibeam	Metal	D	Intact	Red	First	100	1.0 mg/cm²	Action Level
71	Positive	Off	Railing	Metal	D	Intact	Red	First	Stairwel	6.4 mg/cm²	Action Level
73	Positive	Off	Riser	Metal	D	Intact	Red	First	Stairwell	6.7 mg/cm²	Action Level
74	Positive	Off	Stringer	Metal	D	Intact	Red	First	Stairwel	6.7 mg/cm²	Action Level

Lead-Based Paint Inspection Report

Inspection Date:	3/22/2024 - 3/22/2024	Inspection Site:	North Carolina State University Mann Hall
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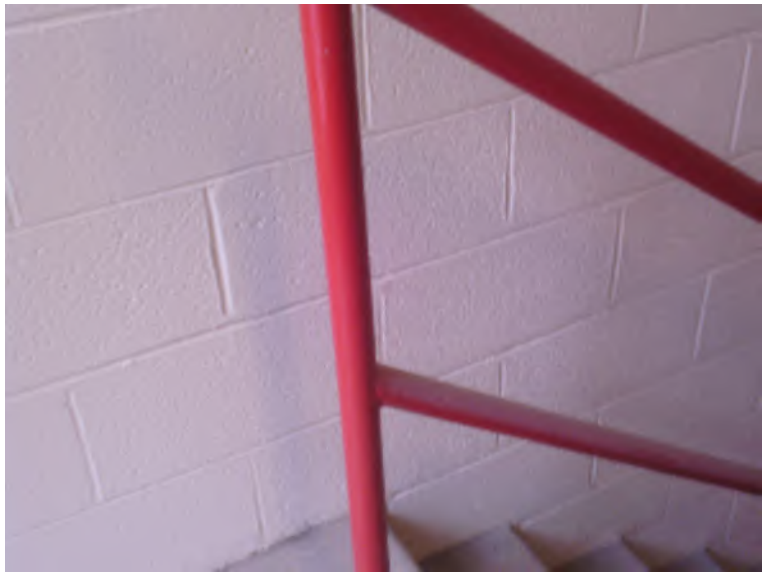
Read #	Result	RTA Present	COMPONENT	SUBSTRATE	SIDE	CONDITION	Color	Floor	ROOM	Lead (mg/cm²)	Mode
75	Positive	Off	Railing	Metal	D	Intact	Red	First	Stairwell	5.4 mg/cm²	Action Level
79	Positive	Off	BaseBoard	Ceramic	A	Intact	Gray	Second	200	1.5 mg/cm²	Action Level
84	Positive	Off	elevator door	Metal	D	Intact	White	Second	201	1.3 mg/cm²	Action Level
93	Positive	Off	BaseBoard	Ceramic	C	Intact	Gray	Second	211	1.3 mg/cm²	Action Level
125	Positive	Off	BaseBoard	Ceramic	D	Intact	Gray	Forth	Hall	1.4 mg/cm²	Action Level
128	Positive	Off			Calibration					1.1 mg/cm²	Action Level
129	Positive	Off			Calibration					1.0 mg/cm²	Action Level

------ END OF READINGS ------

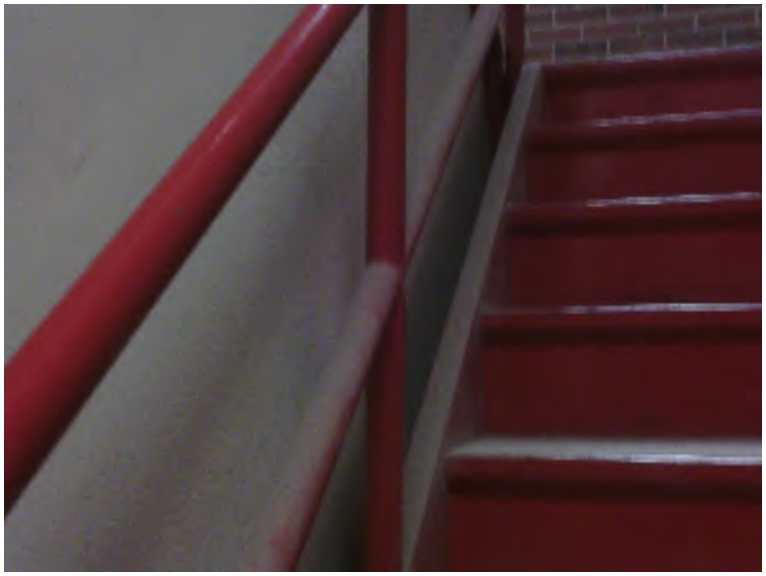
Selected images...

Reading #7

Reading #14



Reading #24



Reading #48

Reading #49

Reading #50

Reading #55

Reading #65

Reading #67

Reading #68

Reading #84

Lead-Based Paint Inspection Report

Matrix Health & Safety Consultants,
LLC
2900 Yonkers Road
Raleigh, NC 27604

INSPECTION SITE:	North Carolina State University Mann Hall
INSPECTION DATE:	3/22/2024 - 3/22/2024
INSTRUMENT TYPE:	Viken Detection Pb200i XRF Lead Paint Analyzer 3100
ACTION LEVEL:	1.0 (mg/cm²)
STATEMENT:	Brian A. Gustafson NC#120100

Lead-Based Paint Inspection Report

Inspection Date:	3/22/2024 - 3/22/2024	Inspection Site:	North Carolina State University Mann Hall
Action Level:	1.0 (mg/cm²)		
Total Readings:	129		
Unit Started:	03/22/2024 09:38:41		
Unit Ended:	03/22/2024 11:04:59		

Read #	Result	RTA Present	COMPONENT	SUBSTRATE	SIDE	CONDITION	Color	Floor	ROOM	Lead (mg/cm²)	Mode
1 (CAL)		Off			Calibration					1.0 mg/cm²	Action Level
3 (CAL)		Off			Calibration					1.0 mg/cm²	Action Level
7	Positive	Off	BaseBoard	Ceramic	C	Intact	Gray	First	Hall	1.4 mg/cm²	Action Level
8	Negative	Off	Wall	Cinderblock	C	Intact	White	First	Hall	0.0 mg/cm²	Action Level
9	Negative	Off	Door Casing	Metal	C	Intact	White	First	Hall	0.4 mg/cm²	Action Level
10	Negative	Off	Door	Metal	C	Intact	Red	First	Hall	0.1 mg/cm²	Action Level
11	Negative	Off	Door	Metal	D	Intact	Red	First	Hall	0.1 mg/cm²	Action Level
12	Negative	Off	Door Casing	Metal	D	Intact	White	First	Hall	0.2 mg/cm²	Action Level
13	Negative	Off	elevator dr csng	Metal	D	Intact	White	First	Hall	0.5 mg/cm²	Action Level
14	Positive	Off	elevator door	Metal	D	Intact	White	First	Hall	1.4 mg/cm²	Action Level
15	Negative	Off	Door Casing	Metal	B	Intact	White	First	Hall	0.5 mg/cm²	Action Level
16	Negative	Off	Door	Wood	B	Intact	Stain	First	Hall	0.0 mg/cm²	Action Level
17	Positive	Off	BaseBoard	Ceramic	B	Intact	Gray	First	Hall	1.7 mg/cm²	Action Level
18	Negative	Off	Wall	Cinderblock	A	Intact	Gray	First	Hall	0.0 mg/cm²	Action Level
19	Negative	Off	Wall	Cinderblock	C	Intact	Gray	First	Hall	0.1 mg/cm²	Action Level
20	Negative	Off	Door Casing	Metal	A	Intact	White	First	Hall	0.4 mg/cm²	Action Level
21	Negative	Off	Door	Wood	A	Intact	Stain	First	Hall	0.0 mg/cm²	Action Level
22	Negative	Off	Door	Metal	D	Intact	Red	First	Hall	0.1 mg/cm²	Action Level

Lead-Based Paint Inspection Report

Inspection Date:	3/22/2024 - 3/22/2024	Inspection Site:	North Carolina State University Mann Hall
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Unit Ended:	03/22/2024 11:04:59		

Read #	Result	RTA Present	COMPONENT	SUBSTRATE	SIDE	CONDITION	Color	Floor	ROOM	Lead (mg/cm²)	Mode
23	Negative	Off	Door Casing	Metal	D	Intact	White	First	Hall	0.2 mg/cm²	Action Level
24	Positive	Off	Railing	Metal	A	Intact	Red	First	Hall	6.4 mg/cm²	Action Level
25	Negative	Off	lockers	Metal	A	Intact	Tan	First	Hall	0.1 mg/cm²	Action Level
26	Negative	Off	conduit	Metal	A	Intact	White	First	Hall	0.1 mg/cm²	Action Level
27	Negative	Off	Door Casing	Metal	D	Intact	White	First	Hall	0.3 mg/cm²	Action Level
28	Negative	Off	Door	Wood	D	Intact	Stain	First	Hall	0.0 mg/cm²	Action Level
29	Negative	Off	Door	Metal	D	Intact	Red	First	Hall	0.0 mg/cm²	Action Level
30	Negative	Off	Door Casing	Metal	D	Intact	White	First	Hall	0.4 mg/cm²	Action Level
31	Negative	Off	Wall	Cinderblock	D	Intact	White	First	Hall	0.1 mg/cm²	Action Level
32	Negative	Off	Ceiling	Concrete	D	Intact	Black	First	Hall	0.2 mg/cm²	Action Level
33	Positive	Off	BaseBoard	Ceramic	D	Intact	Gray	First	Hall	1.5 mg/cm²	Action Level
34	Negative	Off	Door Casing	Metal	C	Intact	White	First	Hall	0.5 mg/cm²	Action Level
35	Negative	Off	Door	Metal	C	Intact	Red	First	Hall	0.0 mg/cm²	Action Level
36	Negative	Off	Wall	Cinderblock	A	Intact	White	First	122	0.1 mg/cm²	Action Level
37	Negative	Off	Door Casing	Metal	C	Intact	White	First	122	0.3 mg/cm²	Action Level
38	Negative	Off	Door	Metal	C	Intact	White	First	122	0.2 mg/cm²	Action Level
39	Negative	Off	Door	Metal	A	Intact	White	First	122	0.0 mg/cm²	Action Level
40	Negative	Off	Door Casing	Metal	A	Intact	White	First	122	0.3 mg/cm²	Action Level

Lead-Based Paint Inspection Report

Inspection Date:	3/22/2024 - 3/22/2024	Inspection Site:	North Carolina State University Mann Hall
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Read #	Result	RTA Present	COMPONENT	SUBSTRATE	SIDE	CONDITION	Color	Floor	ROOM	Lead (mg/cm²)	Mode
41	Negative	Off	Door Casing	Metal	A	Intact	White	First	122	0.2 mg/cm²	Action Level
42	Negative	Off	Door	Metal	A	Intact	White	First	122	0.1 mg/cm²	Action Level
43	Negative	Off	Cabinet	Metal	B	Intact	Green	First	122	0.0 mg/cm²	Action Level
44	Negative	Off	Cabinet	Metal	B	Intact	Green	First	122	0.0 mg/cm²	Action Level
45	Negative	Off	Wall	Cinderblock	B	Intact	White	First	122	0.0 mg/cm²	Action Level
46	Negative	Off	Door Casing	Metal	B	Intact	White	First	122	0.3 mg/cm²	Action Level
47	Negative	Off	Wall	Drywall	B	Intact	White	First	Stairwell	0.1 mg/cm²	Action Level
48	Positive	Off	Railing	Metal	B	Intact	Red	First	Stairwel	1.0 mg/cm²	Action Level
49	Positive	Off	Riser	Metal	B	Intact	Red	First	Stairwell	8.1 mg/cm²	Action Level
50	Positive	Off	Stringer	Metal	B	Intact	Red	First	Stairwel	2.8 mg/cm²	Action Level
51	Negative	Off	Door Casing	Metal	D	Intact	Red	First	Stairwell	0.4 mg/cm²	Action Level
52	Negative	Off	Door	Metal	D	Intact	Red	First	Stairwel	0.1 mg/cm²	Action Level
53	Negative	Off	Wall	Ceramic	D	Intact	Gray	First	mens	0.2 mg/cm²	Action Level
54	Negative	Off	Floor	Ceramic	D	Intact	White	First	mens	0.1 mg/cm²	Action Level
55	Positive	Off	Door Lintel	Metal	B	Intact	Red	First	Hall	6.8 mg/cm²	Action Level
56	Negative	Off	Wall	Brick	A	Intact	White	First	118	0.2 mg/cm²	Action Level
57	Negative	Off	Ceiling	Plaster	A	Intact	White	First	118	0.0 mg/cm²	Action Level
58	Negative	Off	Wall	Drywall	B	Intact	White	First	114	0.0 mg/cm²	Action Level

Lead-Based Paint Inspection Report

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Unit Ended:	03/22/2024 11:04:59		

Read #	Result	RTA Present	COMPONENT	SUBSTRATE	SIDE	CONDITION	Color	Floor	ROOM	Lead (mg/cm²)	Mode
59	Negative	Off	Wall	Concrete	D	Intact	White	First	114	0.2 mg/cm²	Action Level
60	Negative	Off	Door Casing	Metal	B	Intact	White	First	114	0.1 mg/cm²	Action Level
61	Negative	Off	Door	Wood	B	Intact	Stain	First	114	0.0 mg/cm²	Action Level
62	Positive	Off	BaseBoard	Ceramic	B	Intact	Gray	First	114	1.4 mg/cm²	Action Level
63	Negative	Off	Wall	Cinderblock	B	Intact	White	First	113	0.3 mg/cm²	Action Level
64	Negative	Off	Wall	Cinderblock	A	Intact	White	First	111	0.0 mg/cm²	Action Level
65	Positive	Off	Railing	Metal	A	Deteriorated	Gray	First	111	2.3 mg/cm²	Action Level
66	Negative	Off	ahu	Metal	C	Intact	White	First	111	0.1 mg/cm²	Action Level
67	Positive	Off	Railing	Metal	C	Intact	Gray	First	100	16.8 mg/cm²	Action Level
68	Positive	Off	ibeam	Metal	D	Intact	Red	First	100	1.0 mg/cm²	Action Level
69	Negative	Off	Wall	Cinderblock	A	Intact	White	First	102	0.0 mg/cm²	Action Level
70	Negative	Off	Railing	Metal	D	Intact	Red	First	Stairwel	0.2 mg/cm²	Action Level
71	Positive	Off	Railing	Metal	D	Intact	Red	First	Stairwell	6.4 mg/cm²	Action Level
72	Negative	Off	Stringer	Metal	D	Intact	Red	First	Stairwel	0.2 mg/cm²	Action Level
73	Positive	Off	Riser	Metal	D	Intact	Red	First	Stairwell	6.7 mg/cm²	Action Level
74	Positive	Off	Stringer	Metal	D	Intact	Red	First	Stairwel	6.7 mg/cm²	Action Level
75	Positive	Off	Railing	Metal	D	Intact	Red	First	Stairwell	5.4 mg/cm²	Action Level
76	Negative	Off	Fence	Metal	D	Intact	Red	First	Stairwel	0.0 mg/cm²	Action Level

Lead-Based Paint Inspection Report

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Read #	Result	RTA Present	COMPONENT	SUBSTRATE	SIDE	CONDITION	Color	Floor	ROOM	Lead (mg/cm²)	Mode
77	Negative	Off	Wall	Metal	D	Intact	White	First	elevator	0.2 mg/cm²	Action Level
78	Negative	Off	Wall	Cinderblock	D	Intact	White	Second	200	0.0 mg/cm²	Action Level
79	Positive	Off	BaseBoard	Ceramic	A	Intact	Gray	Second	200	1.5 mg/cm²	Action Level
80	Negative	Off	Door Casing	Metal	A	Intact	Gray	Second	200	0.4 mg/cm²	Action Level
81	Negative	Off	Door Casing	Metal	B	Intact	White	Second	201	0.2 mg/cm²	Action Level
82	Negative	Off	Wall	Cinderblock	B	Intact	Blue	Second	201	0.1 mg/cm²	Action Level
83	Negative	Off	elevator dr csng	Metal	D	Intact	White	Second	201	0.5 mg/cm²	Action Level
84	Positive	Off	elevator door	Metal	D	Intact	White	Second	201	1.3 mg/cm²	Action Level
85	Negative	Off	Door Casing	Metal	D	Intact	White	Second	Hall	0.5 mg/cm²	Action Level
86	Negative	Off	Door	Metal	D	Intact	Red	Second	Hall	0.0 mg/cm²	Action Level
87	Negative	Off	Door	Wood	B	Intact	Stain	Second	Hall	0.0 mg/cm²	Action Level
88	Negative	Off	Door Casing	Metal	B	Intact	White	Second	Hall	0.4 mg/cm²	Action Level
89	Negative	Off	Wall	Cinderblock	B	Intact	White	Second	206	0.0 mg/cm²	Action Level
90	Negative	Off	Wall	Concrete	B	Intact	White	Second	206	0.1 mg/cm²	Action Level
91	Negative	Off	Door	Metal	A	Intact	Red	Second	lobby	0.0 mg/cm²	Action Level
92	Negative	Off	Door Casing	Metal	C	Intact	White	Second	211	0.4 mg/cm²	Action Level
93	Positive	Off	BaseBoard	Ceramic	C	Intact	Gray	Second	211	1.3 mg/cm²	Action Level
94	Negative	Off	Wall	Cinderblock	D	Intact	White	Second	210	0.0 mg/cm²	Action Level

Lead-Based Paint Inspection Report

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Read #	Result	RTA Present	COMPONENT	SUBSTRATE	SIDE	CONDITION	Color	Floor	ROOM	Lead (mg/cm²)	Mode
95	Negative	Off	Door Casing	Metal	D	Intact	White	Second	210	0.2 mg/cm²	Action Level
96	Negative	Off	Door	Wood	D	Intact	Stain	Second	210	0.1 mg/cm²	Action Level
97	Negative	Off	Wall	Ceramic	D	Intact	Gray	Second	mens	0.1 mg/cm²	Action Level
98	Negative	Off	Floor	Ceramic	D	Intact	Gray	Second	mens	0.2 mg/cm²	Action Level
99	Negative	Off	Wall	Cinderblock	C	Intact	White	Second	Hall	0.0 mg/cm²	Action Level
100	Negative	Off	Door Casing	Metal	C	Intact	White	Second	Hall	0.5 mg/cm²	Action Level
101	Negative	Off	Door Casing	Metal	D	Intact	White	Third	301	0.1 mg/cm²	Action Level
102	Negative	Off	Wall	Cinderblock	D	Intact	White	Third	301	0.0 mg/cm²	Action Level
103	Negative	Off	Wall	Cinderblock	A	Intact	White	Third	301	0.0 mg/cm²	Action Level
104	Negative	Off	Wall	Cinderblock	B	Intact	White	Third	306	0.0 mg/cm²	Action Level
105	Negative	Off	Door Casing	Metal	B	Intact	White	Third	306	0.4 mg/cm²	Action Level
106	Negative	Off	Door Casing	Metal	A	Deteriorated	White	Third	306	0.4 mg/cm²	Action Level
107	Negative	Off	Wall	Cinderblock	B	Deteriorated	White	Third	306	0.0 mg/cm²	Action Level
108	Negative	Off	Wall	Cinderblock	A	Intact	White	Third	Hall	0.3 mg/cm²	Action Level
109	Negative	Off	Wall	Metal	C	Intact	White	Third	316	0.3 mg/cm²	Action Level
110	Negative	Off	Door Casing	Metal	C	Intact	White	Third	316	0.4 mg/cm²	Action Level
111	Negative	Off	Door Casing	Metal	C	Intact	White	Third	319	0.0 mg/cm²	Action Level
112	Negative	Off	Wall	Drywall	C	Intact	White	Third	319	0.0 mg/cm²	Action Level

Lead-Based Paint Inspection Report

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Read #	Result	RTA Present	COMPONENT	SUBSTRATE	SIDE	CONDITION	Color	Floor	ROOM	Lead (mg/cm²)	Mode
113	Negative	Off	Wall	Cinderblock	C	Intact	White	Third	319	0.0 mg/cm²	Action Level
114	Negative	Off	Door Casing	Metal	D	Intact	White	Third	Hall	0.4 mg/cm²	Action Level
115	Negative	Off	Door	Metal	D	Intact	Red	Third	Hall	0.2 mg/cm²	Action Level
116	Negative	Off	Door Casing	Metal	A	Intact	White	Third	326	0.3 mg/cm²	Action Level
117	Negative	Off	Wall	Cinderblock	D	Intact	White	Third	326	0.0 mg/cm²	Action Level
118	Negative	Off	Wall	Cinderblock	D	Intact	White	Forth	Hall	0.1 mg/cm²	Action Level
119	Negative	Off	Wall	Drywall	D	Intact	White	Forth	431	0.2 mg/cm²	Action Level
120	Negative	Off	Wall	Cinderblock	D	Intact	White	Forth	431	0.1 mg/cm²	Action Level
121	Negative	Off	Wall	Cinderblock	A	Intact	White	Forth	Hall	0.1 mg/cm²	Action Level
122	Negative	Off	Door Casing	Metal	A	Intact	White	Forth	Hall	0.1 mg/cm²	Action Level
123	Negative	Off	Door Casing	Metal	A	Intact	White	Forth	Hall	0.2 mg/cm²	Action Level
124	Negative	Off	Door Casing	Metal	C	Intact	White	Forth	Hall	0.2 mg/cm²	Action Level
125	Positive	Off	BaseBoard	Ceramic	D	Intact	Gray	Forth	Hall	1.4 mg/cm²	Action Level
126	Negative	Off	Door	Metal	D	Intact	Red	Forth	Hall	0.1 mg/cm²	Action Level
127	Negative	Off	Door Casing	Metal	D	Intact	White	Forth	Hall	0.0 mg/cm²	Action Level
128	Positive	Off			Calibration					1.1 mg/cm²	Action Level
129	Positive	Off			Calibration					1.0 mg/cm²	Action Level
130	Negative	Off			Calibration					0.9 mg/cm²	Action Level

Lead-Based Paint Inspection Report

Inspection Date:	3/22/2024 - 3/22/2024	Inspection Site:	North Carolina State University Mann Hall
Action Level:	1.0 (mg/cm²)		
Total Readings:	129		
Unit Started:	03/22/2024 09:38:41		
Unit Ended:	03/22/2024 11:04:59		

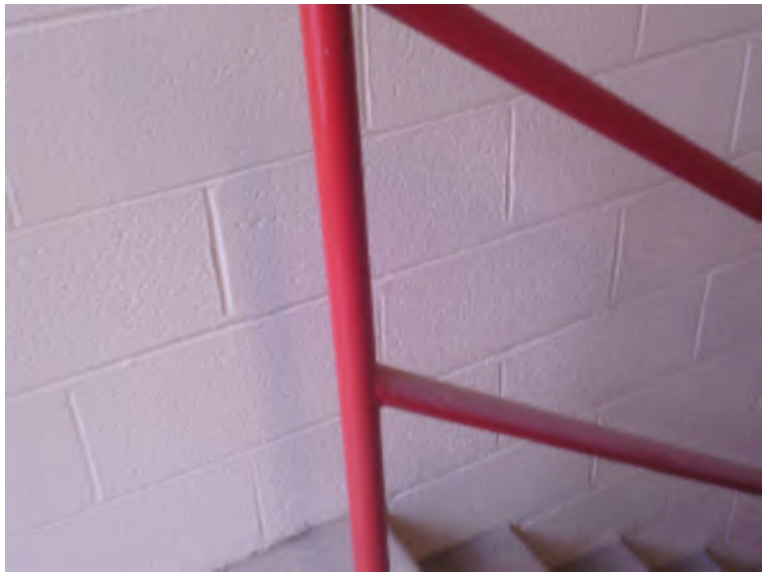
Read #	Result	RTA	Present	COMPONENT	SUBSTRATE	SIDE	CONDITION	Color	Floor	ROOM	Lead (mg/cm²)	Mode
131	Negative	Off				Calibration					0.0 mg/cm²	Action Level
132	Negative	Off				Calibration					0.1 mg/cm²	Action Level
133	Negative	Off				Calibration					0.0 mg/cm²	Action Level

------ END OF READINGS ------

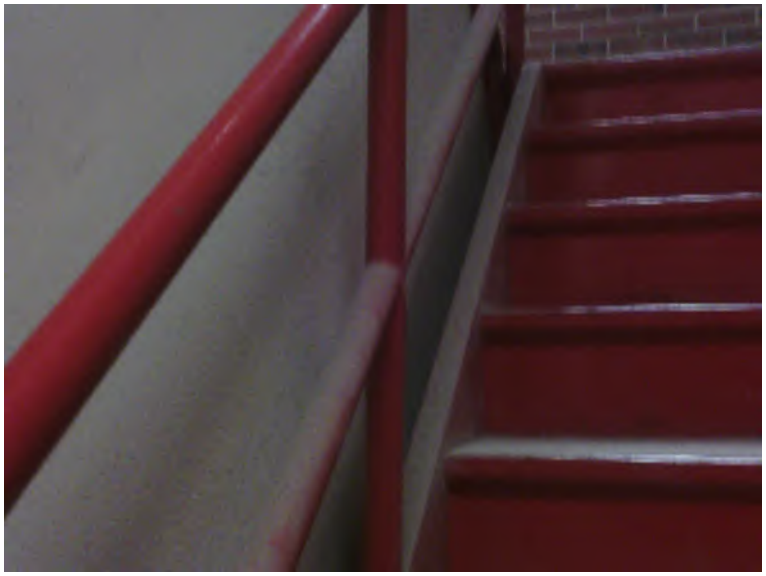
Selected images...

Reading #7

Reading #14



Reading #24



Reading #48

Reading #49

Reading #50

Reading #55

Reading #65

Reading #67

Reading #68

Reading #84

REPORT OF LIMITED FACILITY SURVEY TO IDENTIFY ASBESTOS-CONTAINING MATERIALS

NORTH CAROLINA STATE UNIVERSITY
MANN HALL
2501 STINSON DRIVE
RALEIGH, NORTH CAROLINA
EEC PROJECT NO. N-23-39

FOR:

NORTH CAROLINA STATE UNIVERSITY
FACILITIES DESIGN & CONSTRUCTION
2601 WOLF VILLAGE WAY
ADMINISTRATIVE SERVICES III, SUITE 331
RALEIGH, NORTH CAROLINA 27607

BY:

EEC, Inc.
423 FARINTOSH VALLEY LANE
DURHAM, NORTH CAROLINA 27703
Phone: 919-291-6814

EEC, INC.

PHONE: (919) 291-6814

423 FARINTOSH VALLEY LANE, DURHAM, NORTH CAROLINA 27703

January 12, 2023

North Carolina State University
Facilities Architect, Design & Construction
2601 Wolf Village Way
Administrative Services III, Suite 331
Raleigh, North Carolina 27607

Attention: Mike Bell, PMP, PEM
Design & Construction

Subject: **Summary of Asbestos Bulk Sampling Results**
Mann Hall
2501 Stinson Drive
Raleigh, North Carolina 27607
EEC Job No.: N-23-39

Dear Mr. Bell:

EEC, Inc. is pleased to present this report of the survey to identify asbestos-containing building materials (ACBM) for the planned renovation of Mann Hall located at 2501 Stinson Drive, Raleigh, NC 27607 on the North Carolina State University campus. The purpose of our limited survey is to provide general information, such as the existence and type of asbestos containing materials (ACM) present in the building materials that may have to be disturbed during the demolition and renovations. Our survey included assessment of the suspect ACM samples collected that may be disturbed during demolition and renovation. This report presents known project information, survey procedures and results.

PROJECT INFORMATION

It is our understanding that NCSU plans to renovate the interior of Mann Hall which will require interior demolition. The purpose of our survey was to identify any asbestos containing materials that may be disturbed during the renovations. Any friable asbestos containing materials that would be disturbed during the renovation or demolition work must be removed before such work can begin. The NCSU project manager, Mr. Bell, asked inspection of the building including sampling and analysis of suspect

Asbestos Containing Building Materials (ACBM) present at the site. All the above project information was obtained from our conversations with Mr. Mike Bell and from observations made during our visit to the site on August 10, 2023.

SURVEY AND ANALYTICAL PROCEDURES

On September 29th, 2023, Asbestos Inspectors Donnie Mercer (N. C. Asbestos Inspector No. 11224) and Steve Halyard (N. C. Asbestos Inspector No. 12360) met with NCSU Design & Construction (NCSUDC) to gain access to all the areas of Mann Hall. It was observed that there were some rooms that were locked and inaccessible with the keys that were made available. An additional visit to the site was scheduled on October 16, 2023, for Donnie Mercer to meet with NCSUD&C to access the locked rooms with another set of keys. On October 6, 2023, Donnie Mercer was on site to survey the roof of Mann Hall. Mr. Mercer met later in a scheduled meeting with the NCSU roofing repair personnel on October 13, 2023, to assist in locating and getting the roof core sample holes patched up. Also, on the same day Mr. Mercer along with Mr. Mike Shrimanker met with Mike Bell and NCSUDC to discuss the need to suspend work being done in areas where known ACBM Ceiling Tiles were being damaged/disturbed. A narrative of the observed areas of damage was completed and sent via email to Mike Bell.

All rooms have been accessed except for Telecom Rooms 111A, 306A, and Mechanical Room 1002 (High Voltage). The surveys began with the inspectors performing visual assessments of each area of the building for the presence of materials suspected to be ACM that could be disturbed during the proposed renovations. A sampling strategy was determined, and bulk samples were obtained. Suspect materials were grouped based on material homogeneity. A homogeneous area is an area that contains materials that seem by texture, color, and wear to be uniform and applied during the same general time period. Suspect ACM that was sampled included the 1'x1' Ceiling Tiles, 2'x4' Ceiling Panels, 2"x2" Ceiling Panels, Ceiling Plaster, Wall Plaster, Chalkboard Glue Dots, Textured Wall Coatings, Sheetrock Wall Board, Wall Board Joint Compound, Spray-on Fireproofing, 2"-6" Pipe Insulation, 2"-6" Pipe Fitting Insulation, 9" Floor Tiles, 12" Floor Tiles (all various colors), Floor Tile Mastics, Interior Door Caulking, Linoleum, Lab Countertops, Roof Core Built-up Materials, Roof Flashing Sealants, and Textured Exterior Column Cementitious Finish Coat. Bulk samples of suspected ACM were delivered to AmeriSci Richmond

(AmeriSci) in Midlothian, Virginia for analysis. The AmeriSci laboratory is National Voluntary Laboratory Accreditation Program (NVLAP) accredited. AmeriSci's NVLAP accreditation number is 101904-0. Each bulk sample obtained was placed in a sealed container and labeled with a consecutive number, location, and date. This information was logged into our "Asbestos Bulk Sampling Record" database, printed, and delivered in the form of a signed chain-of-custody to AmeriSci's laboratory along with building material samples collected. Each suspect ACM sample was analyzed using Polarized Light Microscopy (PLM), coupled with Dispersion Staining as outlined in the Environmental Protection Agency's (EPA) accredited test method EPA 600/M4-82-020 that incorporates method EPA-600/R-93/116 where applicable as per 40 CFR 763.

SURVEY RESULTS

Asbestos in amounts greater than one percent (1%) was detected in the following materials:

TYPE OF MATERIAL	GENERAL LOCATION*	TYPE/PERCENT ASBESTOS	ESTIMATED QUANTITY**
1'x1' Ceiling Tiles	2nd-4th Floors	Amosite 2%	25,000 sq. ft.
ACBM Ceiling Spray-on	1st Floor/Basement & Structural Lab on the Concrete Beams, Deck and Columns	Chrysotile 4%	20,000 sq. ft.
Chalkboard, Bulletin Board, Marker Board, Tack Board Glue Dots	108, 113 entry, 202, 206, 207, 209, 216A, 217, 301, 304, 306, 307, 319A, 320, 321, 323, 402, 404, 407, 409, 415, 415A, 415B & 431C	Chrysotile 3%	50 Board Locations
Pipe Insulation Mastic Layer	Roof Drains, All Floors	Chrysotile 2%	500 ft.
4" White Pipe Insulation	Lab 100 at Door 100	Amosite 25%	10 feet
5"-6" Pipe Insulation	1st Floor Basement Corridor	Chrysotile 3%	800 ft
9" Gray/white Floor Tile & Black Mastic	2nd-4th Floors	Tiles: Chrysotile 2% Mastic: Chrysotile 5%	24,000 sq. ft.
Black Floor Tile Mastic	Women's Restroom 218	Chrysotile 3%	60 sq. ft,
Interior Door Caulking	1st Floor, Room 105	Chrysotile 2%	200 Doors
Roof Flashing Sealant	Column-Lower-Level Roof	Chrysotile 5%	15 sq. ft,
12" Green Floor Tile	Room 105	Chrysotile 3%	100 sq. ft.
Transite Pipe	Lab 117, through Corr. to Lab 114, into Lab 113	Assumed	100 ft.

*Based on the results of samples analyzed, it would be reasonable to assume that ACBMs are present in these locations. ** Quantities are estimates only. TBD- To Be Determined

RECOMMENDATIONS

The ACBM must be abated before renovation/demolition activities begin. During our assessment and sampling, we determined that Asbestos is not found in 2'x4' Ceiling Panels, 2"x2" Ceiling Panels, Ceiling Plaster, Wall Plaster, Textured Wall Coatings, Sheetrock Wall Board, Wall Board Joint Compound,

Linoleum, Lab Countertops, Roof Core Built-up Materials, and Textured Exterior Column Cementitious Finish Coat. We also observed a line of fume hood cementitious pipe that we are assuming to be ACBM.

All ACBM materials are in fair to good condition except for the 1'x1' Ceiling Tiles at the Window Renovation Locations of the building. If the planned renovation activities are expected to disturb any ACBM, then the ACBM must be addressed in accordance with applicable Federal, State, and local regulations. **The EPA's NESHAP asbestos regulations (40 CFR 61, Subpart M, Section 61.145) require that regulated friable ACM and regulated non-friable ACM that may become friable must be removed prior to disturbance by North Carolina accredited personnel only.** The North Carolina regulations (G.S. 130A-444 through 451) require accreditation of personnel who work in the asbestos field along with notification and removal permit fees for such asbestos removal projects. Since this is a public facility, it will require an accredited designer to design the abatement project. This information can be obtained from the North Carolina Health Hazard Control Unit in Raleigh, NC.

The Occupational Safety and Health Administration (OSHA) asbestos standards (29 CFR 1910 and 1926) address general industry and construction industry employees' asbestos exposure. These standards set asbestos exposure limits that, if exceeded, require medical surveillance and training programs for the employees. Engineering controls, such as proper work practices, respiratory protection and protective clothing are also outlined to achieve compliance with exposure limits. The OSHA asbestos standards also require posting of warning signs in regulated areas and attaching warning labels on products containing asbestos and to waste containers as well asbestos removal in compliance with North Carolina Health Hazard Control Rules and EPA NESHAP rules.

To provide asbestos abatement design, we will need as-built drawings or architectural demolition drawings to determine the scope of work for the bidding asbestos contractors and we can walkthrough with you about asbestos abatement. Our design will meet or exceed North Carolina Health Hazard Control Unit requirement, US-EPA requirements, and North Carolina OSHA requirements.

We appreciate the opportunity to provide these services. We would be glad to discuss any results or observations contained in this report, at your convenience.

If there are any questions concerning this report or results, please contact us at (919) 291-6814.

Sincerely,

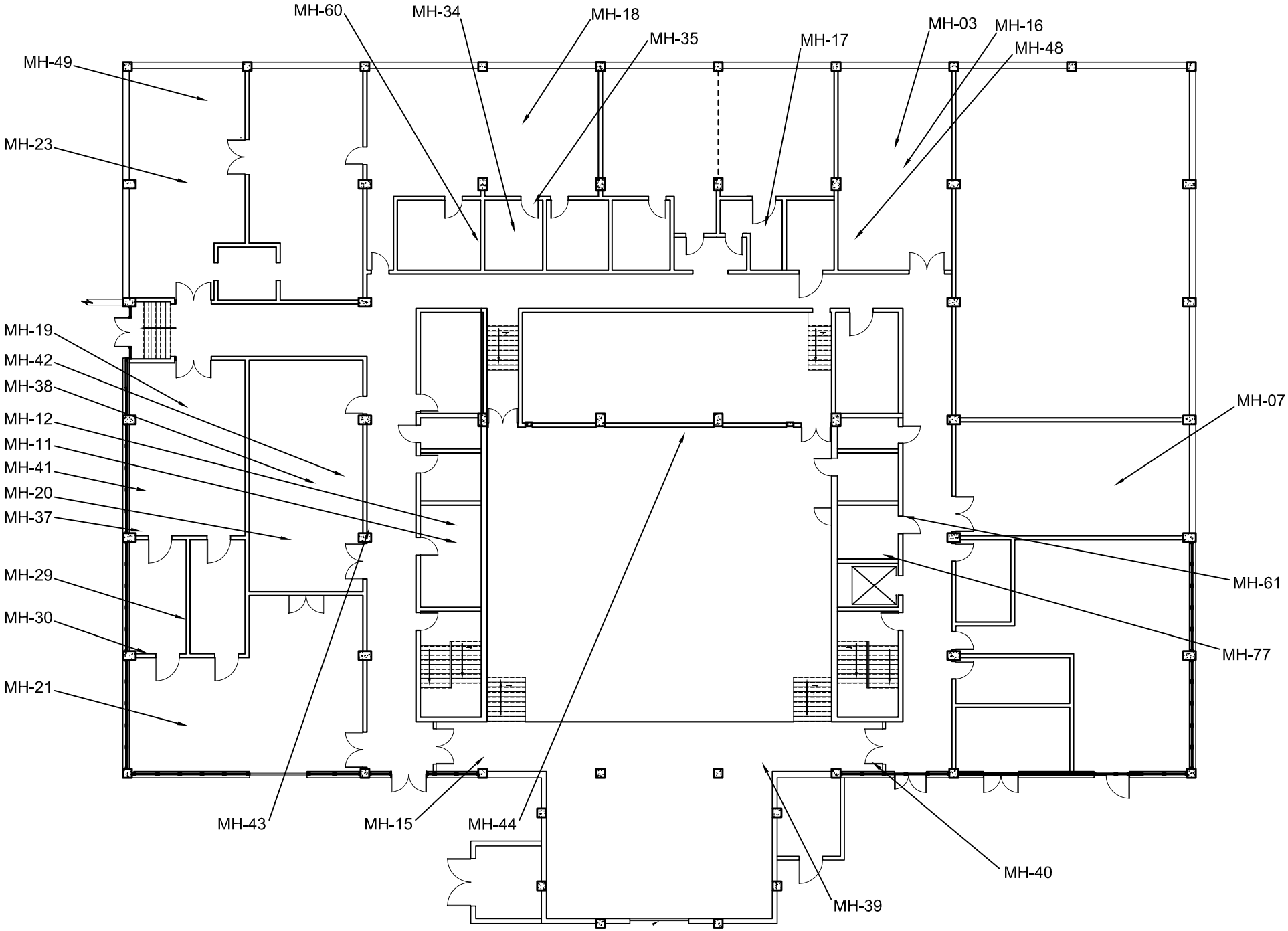
EEC, INC.

Donnie Mercer Jr.
N.C. Inspector No. 11224

Mike Shrimanker, PE, CIH, CSP
President

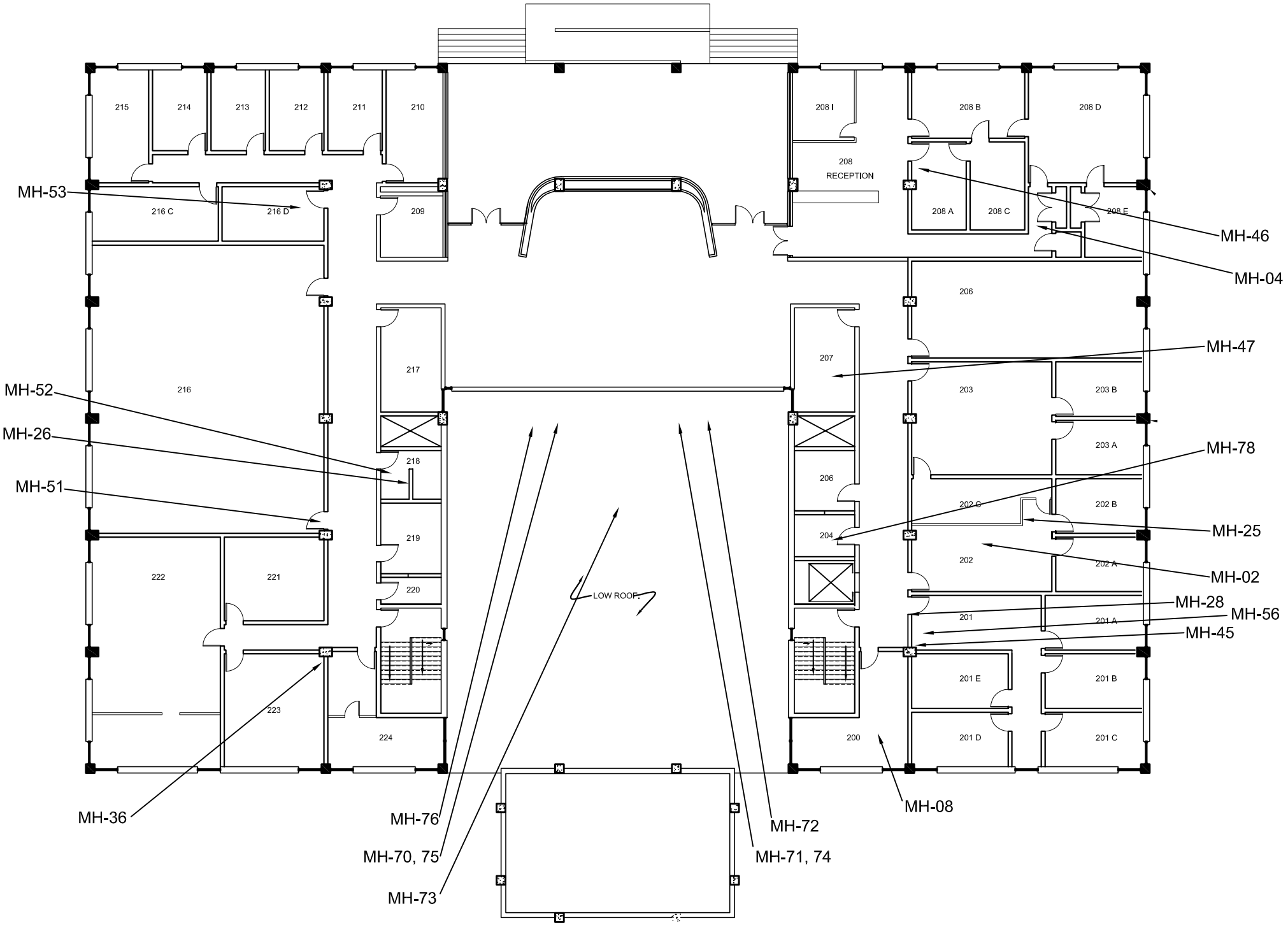
Attachments: Drawings with Sample Locations
Colored Hatched ACM Locations Drawings
Photographs of ACM
Asbestos Bulk Sample Summary with Estimated Asbestos Quantity
AmeriSci Richmond PLM Bulk Asbestos Report

DRAWINGS WITH SAMPLE LOCATIONS



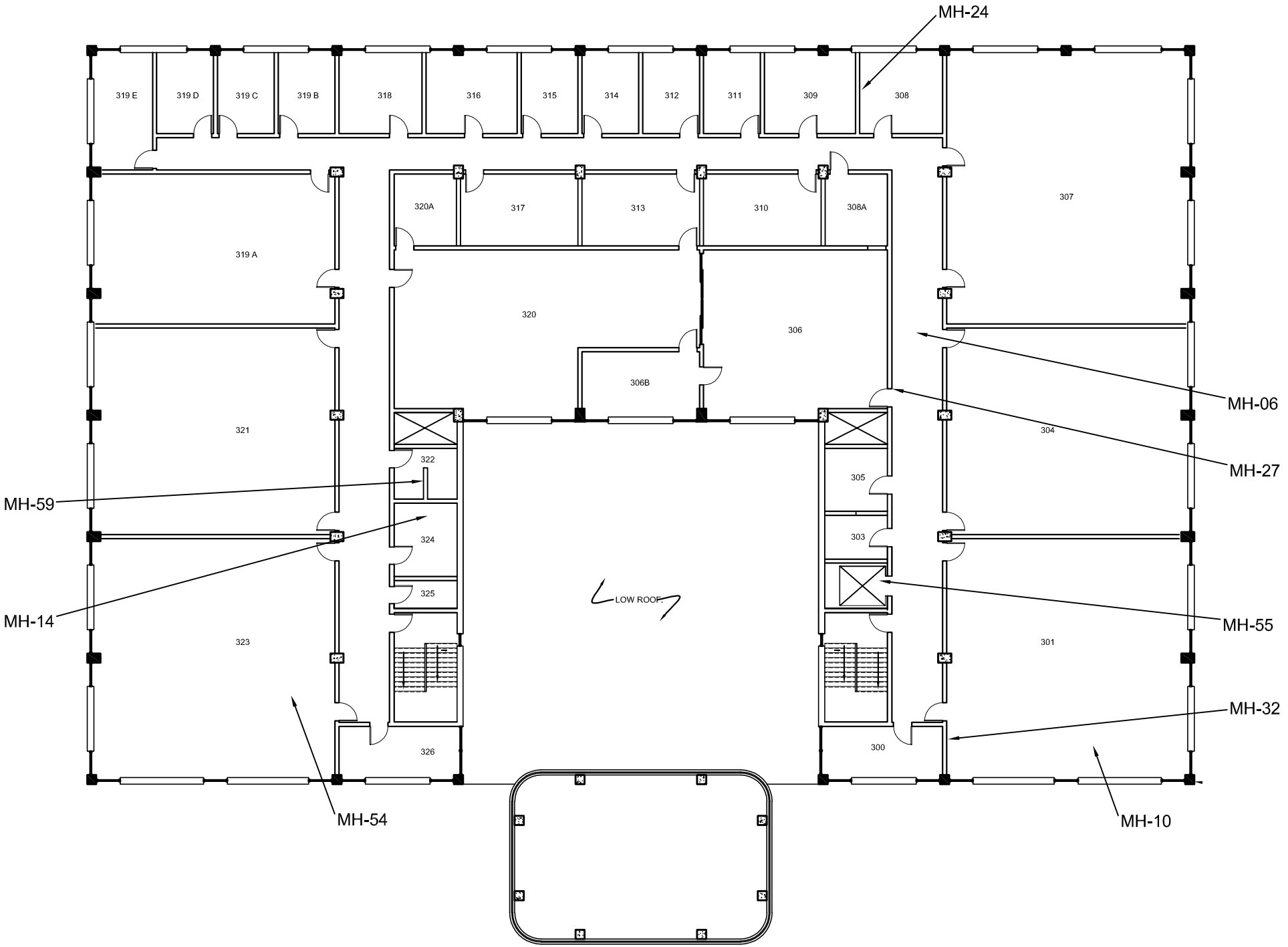
FIRST FLOOR PLAN - BASEMENT / GROUND

3/32" = 1'-0"



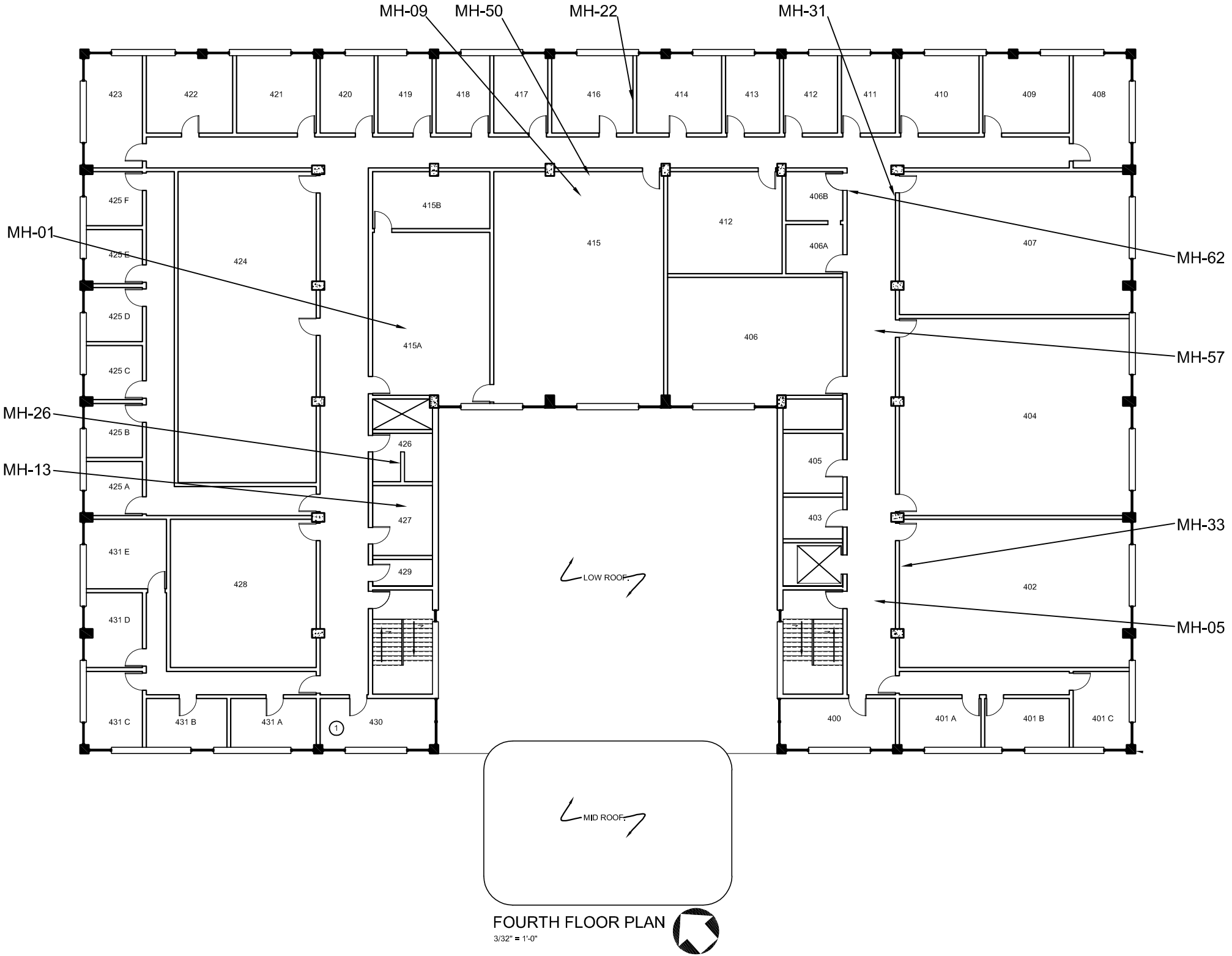
SECOND FLOOR PLAN - MAIN

3/32" = 1'-0"



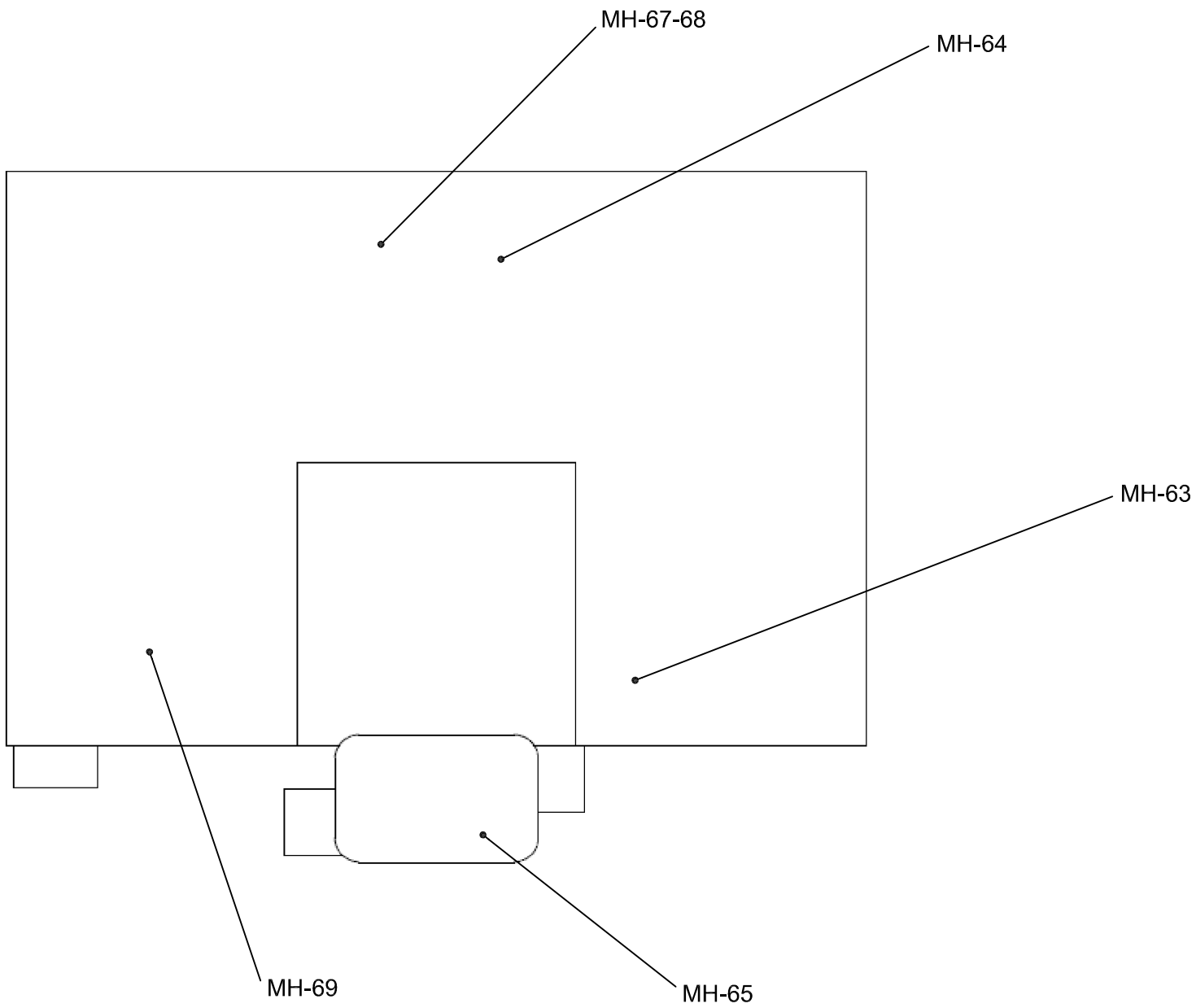
THIRD FLOOR PLAN

3/32" = 1'-0"



FOURTH FLOOR PLAN

3/32" = 1'-0"


MH-67-68
MH-64
MH-63
MH-69
MH-65

PHOTOGRAPHS OF ACM

PHOTOGRAPHS OF ACBM
NCSU - MANN HALL
RALEIGH, NORTH CAROLINA
INSPECTORS: DONNIE MERCER JR. & STEVE HALYARD
EEC JOB NO.: N-23-39

PHOTO No. 1
Typical View of ACBM 1'x1' Ceiling Tiles throughout 2nd – 4th Floors

PHOTO No. 2
Typical View of ACBM Ceiling Spray-on throughout 1st Floor/Basement on the Concrete Beams and Deck

PHOTO No. 3
Typical View of ACBM Chalkboard Glue Dots

PHOTO No. 4
Typical View of ACBM Pipe Insulation Mastic Layer on Roof Drain Insulation

PHOTOGRAPHS OF ACBM
NCSU - MANN HALL
RALEIGH, NORTH CAROLINA
INSPECTORS: DONNIE MERCER JR. & STEVE HALYARD
EEC JOB NO.: N-23-39

PHOTO No. 5
Typical View of ACBM 4" White Pipe Insulation

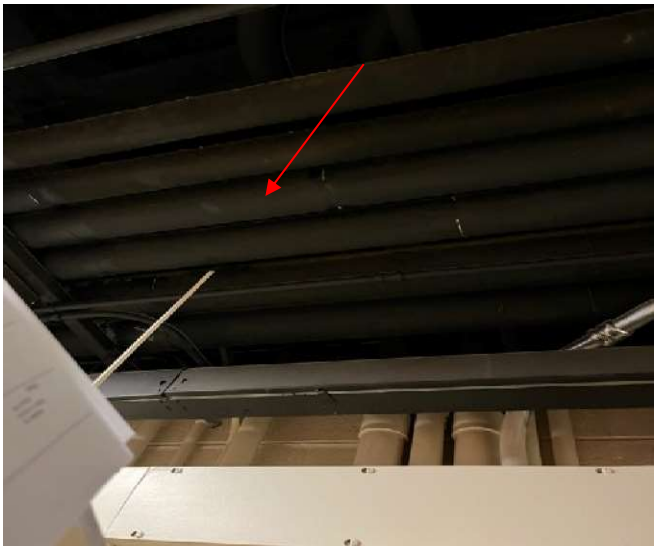


PHOTO No. 6
Typical View of ACBM 5"-6" Pipe Insulation

PHOTO No. 7
Typical View of ACBM 9" Gray/white Floor Tile & Black Mastic

PHOTO No. 8
Typical View of ACBM Black Floor Tile Mastic

PHOTOGRAPHS OF ACBM
NCSU - MANN HALL
RALEIGH, NORTH CAROLINA
INSPECTORS: DONNIE MERCER JR. & STEVE HALYARD
EEC JOB NO.: N-23-39

PHOTO No. 9
Typical View of ACBM Interior Door Caulking

PHOTO No. 10
Typical View of ACBM Roof Flashing Sealant

PHOTO No. 11
Typical View of ACBM 12" Green Floor Tile

PHOTO No. 12
Typical View of Assumed ACBM Transite Pipe in Lab 113 next to ACBM Roof Drain Line

ASBESTOS BULK SAMPLE SUMMARY

ASBESTOS BULK SAMPLING RECORD
NORTH CAROLINA STATE UNIVERSITY
MANN HALL
RALEIGH, NORTH CAROLINA
INSPECTOR: DONNIE MERCER
EEC JOB NO.: N-23-039

SAMPLE NUMBER	TYPE OF MATERIAL	SAMPLE LOCATION	ASBESTOS TYPE/ PERCENTAGE
MH-01	2'x4' Ceiling Panel	RM 415A	NAD
MH-02	2'x4' Ceiling Panel	RM 202	NAD
MH-03	2'x4' Ceiling Panel	RM 109	NAD
MH-04	2'x2' Ceiling Panel	Corridor at 208G	NAD
MH-05	2'x2' Ceiling Panel	Corridor at 402	NAD
MH-06	2'x2' Ceiling Panel	Corridor at 306	NAD
MH-07	2'x2' Ceiling Panel	RM 106	NAD
MH-08	1'x1' Ceiling Tile	RM 200	**2% Amosite**
MH-09	1'x1' Ceiling Tile	RM 415	**2% Amosite**
MH-10	1'x1' Ceiling Tile	RM 301	**2% Amosite**
MH-11	2'x2' Hard Ceiling Panel	Restroom 120	NAD
MH-12	2'x2' Hard Ceiling Panel	Restroom 120	NAD
MH-13.1	Ceiling Plaster Skim Coat	Men's Restroom 427	NAD
MH-13.2	Ceiling Plaster Base Coat	Men's Restroom 427	NAD
MH-14.1	Ceiling Plaster Skim Coat	Men's Restroom 324	NAD
MH-14.2	Ceiling Plaster Base Coat	Men's Restroom 324	NAD
MH-15	Deck & Ceiling Beam Spray-On	RM 100	**4% Chrysotile**
MH-16	Deck & Ceiling Beam Spray-On	RM 109	**NA/PS**
MH-17	Deck & Ceiling Beam Spray-On	RM 112	**4% Chrysotile**
MH-18	Deck & Ceiling Beam Spray-On	RM 113	**NA/PS**
MH-19	Deck & Ceiling Beam Spray-On	RM 115	**4% Chrysotile**
MH-20	Deck & Ceiling Beam Spray-On	RM 117	**NA/PS**
MH-21	Deck & Ceiling Beam Spray-On	RM 122	**4% Chrysotile**
MH-22.1	Sheetrock Wallboard	RM 416	NAD

ASBESTOS BULK SAMPLING RECORD
NORTH CAROLINA STATE UNIVERSITY
MANN HALL
RALEIGH, NORTH CAROLINA
INSPECTOR: DONNIE MERCER
EEC JOB NO.: N-23-039

SAMPLE NUMBER	TYPE OF MATERIAL	SAMPLE LOCATION	ASBESTOS TYPE/ PERCENTAGE
MH-22.2	Wall Joint Compound Mud	RM 416	NAD
MH-23.1	Sheetrock Wallboard	RM 114	NAD
MH-23.2	Wall Joint Compound Mud	RM 114	NAD
MH-24.1	Sheetrock Wallboard	RM 308	NAD
MH-25.1	Sheetrock Wallboard	RM 202	NAD
MH-25.2	Wall Joint Compound Mud	RM 202	NAD
MH-26.1	Wall Plaster Skim Coat	RM 218	NAD
MH-26.2	Wall Plaster Base Coat	RM 218	NAD
MH-27	Interior Door Caulking	@ RM 306	NAD
MH-28	Interior Door Caulking	@ RM 201	NAD
MH-29	Coating on CMU Block Walls	RM 122B	NAD
MH-30	Coating on CMU Block Walls	RM 122B	NAD
MH-31	Cork Board Glue Dots	Corridor @ RM 407	**3% Chrysotile**
MH-32	Chalkboard Glue Dots	RM 301	**3% Chrysotile**
MH-33	Chalkboard Glue Dots	RM 402	**NA/PS**
MH-34	Linoleum Tiles	RM 113B	NAD
MH-35	Linoleum Tiles	RM 113B	NAD
MH-36	Pipe Insulation Mastic	RM 223	**2% Chrysotile**
MH-37	3” Pipe Fitting Insulation	RM 115	NAD
MH-38	3” Pipe Insulation	RM 117	NAD
MH-39	4” Pipe Fitting Insulation	RM 100	NAD
MH-40	4” Pipe Insulation	RM 100 (SE Corner)	**25% Amosite**
MH-41	2” Pipe Insulation	RM 115	NAD
MH-42	2” Pipe Fitting Insulation	RM 117	NAD
MH-43	5-6” Pipe Insulation	Corridor @ RM 120	**3% Chrysotile**

ASBESTOS BULK SAMPLING RECORD
NORTH CAROLINA STATE UNIVERSITY
MANN HALL
RALEIGH, NORTH CAROLINA
INSPECTOR: DONNIE MERCER
EEC JOB NO.: N-23-039

SAMPLE NUMBER	TYPE OF MATERIAL	SAMPLE LOCATION	ASBESTOS TYPE/ PERCENTAGE
MH-44	5-6" Pipe Fitting Insulation	RM 100	NAD
MH-45	Roof Drain 6" Pipe Insulation	RM 201	NAD
MH-46	Lab Countertop	RM 208A	NAD
MH-47	Lab Countertop	RM 207	NAD
MH-48	Lab Countertop	RM 109	NAD
MH-49	Lab Countertop	RM 114	NAD
MH-50.1	9" Gray Floor Tile	RM 415	**2% Chrysotile**
MH-50.2	Black Mastic of MH-50.1	RM 415	**5% Chrysotile**
MH-51.1	12" Off-white Floor Tile	RM 216	NAD
MH-51.2	Black Mastic of MH-51.1	RM 216	NAD
MH-52.1	12" White Mottled Floor Tile	Women's Restroom 218	NAD
MH-52.2	Black Mastic of MH-52.1	Women's Restroom 218	**3% Chrysotile**
MH-53.1	12" Mottled Tan Floor Tile	RM 216D	NAD
MH-53.2	Black Mastic of MH-53.1	RM 216D	NAD
MH-54.1	12" Off-white Floor Tile	RM 323	NAD
MH-54.2	Yellow Mastic of MH-54.1	RM 323	NAD
MH-55.1	12" Off-white Mottled Floor Tile	Elevator	NAD
MH-55.2	Yellow Mastic of MH-54.1	Elevator	NAD
MH-56.1	9" Gray Floor Tile	RM 201	**2% Chrysotile**
MH-56.2	Black Mastic of MH-56.1	RM 201	**5% Chrysotile**
MH-57	2'x2' Ceiling Panel	Corridor @ RM 404	NAD
MH-58.1	Wall Plaster Skim Coat	Women's Restroom 426	NAD
MH-58.2	Wall Plaster Base Coat	Women's Restroom 426	NAD
MH-59.1	Wall Plaster Skim Coat	Women's Restroom 322	NAD
MH-59.2	Wall Plaster Base Coat	Women's Restroom 322	NAD

ASBESTOS BULK SAMPLING RECORD
NORTH CAROLINA STATE UNIVERSITY
MANN HALL
RALEIGH, NORTH CAROLINA
INSPECTOR: DONNIE MERCER
EEC JOB NO.: N-23-039

SAMPLE NUMBER	TYPE OF MATERIAL	SAMPLE LOCATION	ASBESTOS TYPE/ PERCENTAGE
MH-60.1	Wall Plaster Skim Coat	RM 113A	NAD
MH-60.2	Wall Plaster Base Coat	RM 113A	NAD
MH-61	Interior Door Caulking	RM 105	**2% Chrysotile**
MH-62	Interior Door Caulking	RM 406B	NAD
MH-63	Roof Core	Main Roof Level – Southeast Corner	NAD
MH-64	Roof Core	Main Roof Level – North Middle	NAD
MH-65	Roof Core	Structural Lab Extension Roof	NAD
MH-66	Roof Core	Lower Main Roof Level	NAD
MH-67	Roof Flashing Sealant	Main Roof Level – NNW Penetration	NAD
MH-68	Roof Flashing Sealant	Main Roof Level – NNW Penetration	NAD
MH-69	Roof Flashing Sealant	Main Roof Level – West Penetration	NAD
MH-70	Roof Flashing Sealant	Lower Main Roof – Column North	NAD
MH-71	Roof Flashing Sealant	Lower Main Roof – Column NE	**5% Chrysotile**
MH-72	Roof Flashing Sealant	Lower Roof Level – NNE Penetration	NAD
MH-73	Roof Flashing Sealant	Lower Roof – Middle Penetration	NAD
MH-74	Textured Finish Coat	Lower Main Roof – Column NE	NAD
MH-75	Textured Finish Coat	Lower Main Roof – Column NW	NAD
MH-76	Roof Flashing Sealant	Lower Roof – NW Corner Penetration	NAD
MH-77A	Green Floor Tile	RM 105	**3% Chrysotile**
MH-78A	Mottle Off-white & Gray Floor Tile	RM 204	NAD
MH-78B	Mastic of MH-78A	RM 204	NAD

AMERISCI RICHMOND
PLM BULK ASBESTOS REPORT

CHAIN OF CUSTODY RECORD

AMERISCI *RICHMOND*
13635 GENITO ROAD
MIDLOTHIAN, VA 23112
PHONE: (804) 763-1200
FAX: (804) 763-1800
TOLL FREE (800) 476-5227
www.amerisci.com

AMERISCI *Richmond*
Job No.#

EEC, INC	8502 Six Forks Road, Suite 104, Raleigh, NC 27615	**P.O.#** **SPECIAL INSTRUCTIONS:**

PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X)							AIR FILTER INFORMATION:	
		6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other		
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 1	PLM	☐	☐	☐	☐	☒	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

RESULTS TO: EEC Inc **INVOICE TO:** EEC. Inc **RETURN SAMPLES:** YES ☐ NO ☒
EMAIL RESULTS: ☒ **EMAIL ADDRESS:** mshrimanker@eecincorporated.com **PHONE:** 919-291-6814
WRITTEN REPORT TO: EEC Inc. (Copies to eecinc@gmail.com & dmercerjr@gmail.com) **FAX:**
COMMENTS: *Positive Stop on Samples of same HGA ID. **SITE FAX:**
PAGER/CELL:

HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME	X LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
1	MH-01	RM 415A / 2'x4' Ceiling Panel						9-29-23
1	MH-02	RM 202 / 2'x4' Ceiling Panel						"
1	MH-03	RM 109 / 2'x4' Ceiling Panel						"
2A	MH-04	Corridor @ 208G / 2'x2' Ceiling Panel						"
2A	MH-05	Corridor @ 402 / 2'x2' Ceiling Panel						"
2A	MH-06	Corridor @ 306 / 2'x2' Ceiling Panel						"
2B	MH-07	RM 106 / 2'x2' Ceiling Panel						"
3	MH-08	RM 200 / 1'x1' Ceiling Tiles						"
3	MH-09	RM 415 / 1'x1' Ceiling Tiles						"
3	MH-10	RM 301 / 1'x1' Ceiling Tiles						"
4	MH-11	RR 120 / 2'x2' Hard Ceiling Panel						"
4	MH-12	RR 120 / 2'x2' Hard Ceiling Panel						"
5	MR-13	Men's RR 427 / Ceiling Plaster						"
5	MR-14	Men's RR 324 / Ceiling Plaster						"
6	MR-15	RM 100 Ceiling / Fireproofing Spray-on						"
6	MR-16	RM 109 Ceiling / Fireproofing Spray-on						"
6	MR-17	RM 112 Ceiling / Fireproofing Spray-on						"
6	MR-18	RM 113 Ceiling / Fireproofing Spray-on						"
6	MR-19	RM 115 Ceiling / Fireproofing Spray-on						"
6	MR-20	RM 117 Ceiling / Fireproofing Spray-on						"

SAMPLED BY: D. Mercer & S. Halyard	DATE/TIME: 9-29-23 1441 Hrs.	Received By:	DATE/TIME:
RELINQUISHED BY:	DATE/TIME:	Received in Lab By:	DATE/TIME:

PLEASE SEND COPIES OF ALL LAB RESULTS TO EMAIL: MSHRIMANKER@EECINCORPORATED.COM

CHAIN OF CUSTODY RECORD

AMERISCI RICHMOND
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TOLL FREE (800) 476-5227
www.amerisci.com

AMERISCI Richmond
Job No.#

EEC, INC	8502 Six Forks Road, Suite 104, Raleigh, NC 27615	**P.O.#** **SPECIAL INSTRUCTIONS:**

PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X)							AIR FILTER INFORMATION:	
		6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other		
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 2	PLM	☐	☐	☐	☐	☒	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

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HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME	X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
6	MH-21	RM 122 Ceiling / Fireproofing Spray-on							9-29-23
7	MH-22A	RM 416 / Sheetrock Wallboard							"
8	MH-22B	RM 416 / Wall Joint Compound Mud							"
7	MH-23A	RM 114 / Sheetrock Wallboard							"
8	MH-23B	RM 114 / Wall Joint Compound Mud							"
7	MH-24A	RM 308 / Sheetrock Wallboard							"
8	MH-24B	RM 308 / Wall Joint Compound Mud							"
7	MH-25A	RM 202 / Sheetrock Wallboard							"
8	MH-25B	RM 202 / Wall Joint Compound Mud							"
9	MH-26	RM 218 / Wall Plaster							"
10	MH-27	@ 306 / Interior Door Caulking							"
10	MH-28	@ 201 / Interior Door Caulking							"
11	MH-29	RM 122B / Coating on CMU Block Walls							"
11	MH-30	RM 122B / Coating on CMU Block Walls							"
12	MH-31	Corridor @ 407 / Cork Board Glue Dots							"
13	MH-32	RM 301 / Chalkboard Glue Dots							"
13	MH-33	RM 402 / Chalkboard Glue Dots							"
14	MH-34	RM 113B / Linoleum Tiles							"
14	MH-35	RM 113B / Linoleum Tiles							"
15	MH-36	RM 223 / Vertical Metal-covered Pipe Ins. Mastic							"

SAMPLED BY: D. Mercer & S. Halyard	DATE/TIME: 9-29-23 1441 Hrs.	Received By:	DATE/TIME:
RELINQUISHED BY:	DATE/TIME:	Received in Lab By:	DATE/TIME:

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CHAIN OF CUSTODY RECORD

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PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X)							AIR FILTER INFORMATION:	
		6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other		
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 3	PLM	☐	☐	☐	☐	☒	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

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HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
16	MH-37	RM 115 / 3" Pipe Fitting Insulation						9-29-23
17	MH-38	RM 117 / 3" Pipe Insulation						"
16	MH-39	RM 100 / 4" Pipe Fitting Insulation						"
17	MH-40	@ SE Corner Door to RM 100 / 4" Pipe Insulation						"
17	MH-41	RM 117 / 2" Pipe Insulation						"
16	MH-42	Corridor @ Men's RR 120 / 2" Pipe Fitting Ins.						"
17	MH-43	RM 100 / 5-6" Pipe Insulation						"
16	MH-44	RM 100 / 5-6" Pipe Fitting Insulation						"
18	MH-45	RM 201 / Roof Drain 6" Pipe Insulation						"
19A	MH-46	RM 208H / Lab Countertop						"
19B	MH-47	RM 207 / Lab Countertop						"
19C	MH-48	RM 109 / Lab Countertop						"
19D	MH-49	RM 114 / Lab Countertop						"
20	MH-50A	RM 415 / 9" Gray Floor Tile						"
21	MH-50B	Black Mastic of MH-50A						"
22	MH-51A	RM 216 / 12" Off-white Floor Tile						"
23	MH-51B	Black Mastic of MH-51A						"
24	MH-52A	Women's RR 218 / 12" White Mottled Floor Tile						"
25	MH-52B	Black Mastic of MH-52A						"
26	MH-53A	RM 216D / 12" Mottled Tan Floor Tile						"

SAMPLED BY: D. Mercer & S. Halyard	DATE/TIME: 9-29-23 1441 Hrs.	Received By:	DATE/TIME:
RELINQUISHED BY:	DATE/TIME:	Received in Lab By:	DATE/TIME:

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	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 4	PLM	☐	☐	☐	☐	☒	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

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HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME	X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
27	MH-53B	Mastic of MH-53A							9-29-23
22	MH-54A	RM 323 / 12" Off-white Floor Tile							"
28	MH-54B	Mastic of MH-54A							"
29	MH-55A	Elevator / 12" Off-white mottled Floor Tile							"
30	MH-55B	Mastic of MH-55A							"
20	MH-56A	RM 201 / 9" Gray Floor Tile							"
21	MH-56B	Black Mastic of MH-56A							"
2B	MH-57	Corridor @ 404 / 2'x2' Ceiling Panel							"
9	MH-58	Women's RR 426 / Wall Plaster							"
9	MH-59	Women's RR 322 / Wall Plaster							"
9	MH-60	RM 113A / Wall Plaster							"
10	MH-61	RM 105 / Interior Door Caulking							"
10	MH-62	RM 406B / Interior Door Caulking							"

SAMPLED BY: D. Mercer & S. Halyard	DATE/TIME: 9-29-23 1441 Hrs.	Received By:	DATE/TIME:
RELINQUISHED BY:	DATE/TIME:	Received in Lab By:	DATE/TIME:

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AMERI SCI

CHAIN OF CUSTODY RECORD

AMERISCI *Richmond*
Job No.#

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EEC, INC	8502 Six Forks Road, Suite 104, Raleigh, NC 27615	**P.O.#** **SPECIAL INSTRUCTIONS:**

PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X)							AIR FILTER INFORMATION:	
		6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other		
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 5	PLM	☐	☐	☐	☐	☒	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

RESULTS TO: EEC Inc **INVOICE TO:** EEC. Inc **RETURN SAMPLES:** YES ☐ NO ☒
EMAIL RESULTS: ☒ **EMAIL ADDRESS:** mshrimanker@eecincorporated.com **PHONE:** 919-291-6814
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COMMENTS: *Positive Stop on Samples of same HGA ID. **SITE FAX:**
PAGER/CELL:

HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
31	MH-63	Main Roof Level - Southeast / Roof Core						10-6-23
31	MH-64	Main Roof Level - North middle / Roof Core						"
31	MH-65	Structural Lab Area - Southeast / Roof Core						"
31	MH-66	Lower (2nd Flr.) Level - Northeast / Roof Core						"
32	MH-67	Main Rf. Lvl.-NNW Pene./Roof Flash. Sealant						"
33	MH-68	Main Rf. Lvl.-NNW Pene./Roof Flash. Sealant						"
34	MH-69	Main Rf. Lvl.-West Pene./Roof Flash. Sealant						"
35	MH-70	Lwr. Lvl. Column - North / Roof Flash. Sealant						"
36	MH-71	Lwr. Lvl. Column - NE/ Roof Flash. Sealant						"
37	MH-72	Lwr. Lvl. - NNE Pene./ Roof Flash. Sealant						"
38	MH-73	Lwr. Lvl.- Middle Pen./ Roof Flash. Sealant						"
39	MH-74	Lwr. Lvl. Column - NE/ Textured Finish Coat						"
39	MH-75	Lwr. Lvl. Column - NW/ Textured Finish Coat						"
40	MH-76	Lwr. lvl.- NW corn. Pen./Roof Flash. Seal.2:09						"

SAMPLED BY:	Donnie Mercer Jr.	DATE/TIME:	10-6-23 1545 Hrs.	Received By:	DATE/TIME:
RELINQUISHED BY:		DATE/TIME:		Received in Lab By:	DATE/TIME:

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CHAIN OF CUSTODY RECORD

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AMERISCI Richmond
Job No.#

EEC, INC	8502 Six Forks Road, Suite 104, Raleigh, NC 27615	**P.O.#** **SPECIAL INSTRUCTIONS:**

PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X)							AIR FILTER INFORMATION:	
		6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other		
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 6	PLM	☐	☐	☒	☐	☐	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

RESULTS TO: EEC Inc **INVOICE TO:** EEC. Inc **RETURN SAMPLES:** YES ☐ NO ☒
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COMMENTS: *Positive Stop on Samples of same HGA ID. **SITE FAX:**
PAGER/CELL:

HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME	X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
41	MH-77A	RM 105 / 12" Greenish-White streaks Floor Tile							10-16-23
40	MH-77B	Mastic of MH-77A							"
42	MH-78A	RM 204/ 12" Mottled Off-white & Gray Floor Tile							"
43	MH-78B	Mastic of MH-78A							"

SAMPLED BY: Donnie Mercer Jr.	DATE/TIME: 10-16-23 1800 Hrs.	Received By:	DATE/TIME:
RELINQUISHED BY:	DATE/TIME:	Received in Lab By:	DATE/TIME:

PLEASE SEND COPIES OF ALL LAB RESULTS TO EMAIL: MSHRIMANKER@EECINCORPORATED.COM

AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: 8047631200 FAX: 8047631800

October 12, 2023

EEC INC
Attn: Donnie Mercer Jr
8514 Six Forks Road
Suite 101
Raleigh, NC 27615

RE: EEC INC
Job Number 123101136
P.O. #N-23-39
N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples (Report Amended 10/12/2023)

Dear Donnie Mercer Jr:

Enclosed are the results for PLM asbestos analysis of the following EEC INC samples received at AmeriSci on Wednesday, October 4, 2023, for a 3 day turnaround:

MH-01, MH-02, MH-03, MH-04, MH-05, MH-06, MH-07, MH-08, MH-09, MH-10, MH-11, MH-12, MR-13, MR-14, MR-15, MR-16, MR-17, MR-18, MR-19, MR-20, MH-21, MH-22, MH-23, MH-24, MH-25, MH-26, MH-27, MH-28, MH-29, MH-30, MH-31, MH-32, MH-33, MH-34, MH-35, MH-36, MH-37, MH-38, MH-39, MH-40, MH-41, MH-42, MH-43, MH-44, MH-45, MH-46, MH-47, MH-48, MH-49, MH-50, MH-51, MH-52, MH-53, MH-54, MH-55, MH-56, MH-57, MH-58, MH-59, MH-60, MH-61, MH-62

The 73 samples contained in zip lock bag were shipped to AmeriSci via Fed Ex 8175 6326 3392 B 930. These samples were prepared and analyzed according to EPA PLM Method (EPA 600/R-93/116 Section 2.2). The required analytical information, analysis results, analyst signature and laboratory identification are contained in the PLM Bulk Asbestos Report. If TEM analysis was requested for selected samples the gravimetric reduction data (by Sec 2.3) and TEM Asbestos % (by Sec 2.5) are included in Table 1 along with a summary of Asbestos % by PLM for all samples analyzed.

This report relates ONLY to the sample analysis expressed as % asbestos. AmeriSci assumes no responsibility for customer supplied data such as “sample type”, "location", or “area sampled”. This report must not be used to claim product endorsement by AmeriSci, NVLAP or any agency of the U. S. Government. The National Institute of Standards and Technology accreditation requirements mandate that this report must not be reproduced, except in full, without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Glenn F. Massey
QA Manager | Authorized Signatory

AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: (804) 763-1200 • FAX: (804) 763-1800

PLM Bulk Asbestos Report

EEC INC
Attn: Donnie Mercer Jr
8514 Six Forks Road
Suite 101
Raleigh, NC 27615

Date Received 10/04/23
Date Examined 10/09/23

AmeriSci Job # 123101136
P.O. #
Page 1 **of** 14

RE: N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
(Report Amended 10/12/2023)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-01 1	123101136-01 **Location:** Rm 415A / 2'x4' Ceiling Panel	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 70%, Fibrous glass 10%, Non-fibrous 20%			
MH-02 1	123101136-02 **Location:** Rm 202 / 2'x4' Ceiling Panel	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 70%, Fibrous glass 10%, Non-fibrous 20%			
MH-03 1	123101136-03 **Location:** Rm 109 / 2'x4' Ceiling Panel	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 70%, Fibrous glass 10%, Non-fibrous 20%			
MH-04 2A	123101136-04 **Location:** Corridor @ 208G / 2'x2' Ceiling Panel	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 80%, Fibrous glass 5.0%, Non-fibrous 15%			
MH-05 2A	123101136-05 **Location:** Corridor @ 402 / 2'x2' Ceiling Panel	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 80%, Fibrous glass 5.0%, Non-fibrous 15%			

See Reporting notes on last page

PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
(Report Amended 10/12/2023)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-06 2A	123101136-06 **Location:** Corridor @ 306 / 2'x2' Ceiling Panel	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 80%, Fibrous glass 5.0%, Non-fibrous 15%			
MH-07 2B	123101136-07 **Location:** Rm 106 / 2'x2' Ceiling Panel	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 80%, Fibrous glass 5.0%, Non-fibrous 15%			
MH-08 3	123101136-08 **Location:** Rm 200 / 1'x1' Ceiling Tiles	***Yes***	2.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** Amosite 2.0% **Other Material:** Cellulose 13%, Fibrous glass 80%, Non-fibrous 5.0%			
MH-09 3	123101136-09 **Location:** Rm 415 / 1'x1' Ceiling Tiles	***Yes***	2.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** Amosite 2.0% **Other Material:** Cellulose 13%, Fibrous glass 80%, Non-fibrous 5.0%			
MH-10 3	123101136-10 **Location:** Rm 301 / 1'x1' Ceiling Tiles	***Yes***	2.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** Amosite 2.0% **Other Material:** Cellulose 13%, Fibrous glass 80%, Non-fibrous 5.0%			
MH-11 4	123101136-11 **Location:** RR 120/2'X2' Hard Ceiling Panel	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 5.0%, Fibrous glass 1.0%, Non-fibrous 94%			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-12 4	123101136-12 **Location:** RR 120/2'X2' Hard Ceiling Panel	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 5.0%, Fibrous glass 1.0%, Non-fibrous 94%			
MR-13 5	123101136-13.1 **Location:** Men's RR 427 / Ceiling Plaster	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Skim Coat (Plaster) **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MR-13 5	123101136-13.2 **Location:** Men's RR 427 / Ceiling Plaster	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Heterogeneous, Non-Fibrous, Cementitious, Base Coat (Plaster) **Asbestos Types:** **Other Material:** Cellulose 2.0%, Non-fibrous 98%			
MR-14 5	123101136-14.1 **Location:** Men's RR 324 / Ceiling Plaster	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Skim Coat (Plaster) **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MR-14 5	123101136-14.2 **Location:** Men's RR 324 / Ceiling Plaster	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Heterogeneous, Non-Fibrous, Cementitious, Base Coat (Plaster) **Asbestos Types:** **Other Material:** Cellulose 2.0%, Non-fibrous 98%			
MR-15 6	123101136-15 **Location:** Rm 100 Ceiling / Fireproofing Spray-On	***Yes***	4.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.0% **Other Material:** Fibrous Talc 6.0%, Non-fibrous 90%			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MR-16 6	123101136-16 **Location:** Rm 109 Ceiling / Fireproofing Spray-On		NA/PS
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
MR-17 6	123101136-17 **Location:** Rm 112 Ceiling / Fireproofing Spray-On	***Yes***	4.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.0% **Other Material:** Fibrous Talc 6.0%, Non-fibrous 90%			
MR-18 6	123101136-18 **Location:** Rm 113 Ceiling / Fireproofing Spray-On		NA/PS
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
MR-19 6	123101136-19 **Location:** Rm 115 Ceiling / Fireproofing Spray-On	***Yes***	4.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.0% **Other Material:** Fibrous glass 4.0%, Non-fibrous 92%			
MR-20 6	123101136-20 **Location:** Rm 117 Ceiling / Fireproofing Spray-On		NA/PS
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
MH-21 6	123101136-21 **Location:** Rm 122 Ceiling / Fireproofing Spray-On	***Yes***	4.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.0% **Other Material:** Fibrous glass 1.0%, Fibrous Talc 3.0%, Non-fibrous 92%			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-227	123101136-22	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Location: Rm 416 / Sheetrock Wallboard			
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2.0%, Non-fibrous 98%			
MH-228	123101136-23	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Location: Rm 416 / Wall Joint Compound Mud			
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-237	123101136-24	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Location: Rm 114 / Sheetrock Wallboard			
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2.0%, Fibrous glass Trace, Non-fibrous 98%			
MH-238	123101136-25	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Location: Rm 114 / Wall Joint Compound Mud			
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous Talc Trace, Non-fibrous 100%			
MH-247	123101136-26	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Location: Rm 308 / Sheetrock Wallboard			
Analyst Description: Gray, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2.0%, Fibrous glass Trace, Non-fibrous 98%			
MH-248	123101136-27		NA [1]
Location: Rm 308 / Wall Joint Compound Mud			
Analyst Description: Insufficient Material **Asbestos Types:** **Other Material:**			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-25 7	123101136-28 **Location:** Rm 202 / Sheetrock Wallboard	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2.0%, Non-fibrous 98%			
MH-25 8	123101136-29 **Location:** Rm 202 / Wall Joint Compound Mud	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-26 9	123101136-30.1 **Location:** Rm 218 / Wall Plaster	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Skim Coat (Plaster) **Asbestos Types:** **Other Material:** Fibrous Talc 2.0%, Non-fibrous 98%			
MH-26 9	123101136-30.2 **Location:** Rm 218 / Wall Plaster	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Heterogeneous, Non-Fibrous, Cementitious, Base Coat (Plaster) **Asbestos Types:** **Other Material:** Cellulose Trace, Non-fibrous 100%			
MH-27 10	123101136-31 **Location:** @ 306 / Interior Door Caulking	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-28 10	123101136-32 **Location:** @ 201 / Interior Door Caulking	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-29 11	123101136-33 **Location:** Rm 122B / Coating On CMU Block Walls	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-30 11	123101136-34 **Location:** Rm 122B / Coating On CMU Block Walls	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-31 12	123101136-35 **Location:** Corridor @ 407 / Cork Board Glue Dots	***Yes***	3.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.0% **Other Material:** Non-fibrous 97%			
MH-32 13	123101136-36 **Location:** Rm 301 / Chalkboard Glue Dots	***Yes***	3.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.0% **Other Material:** Non-fibrous 97%			
MH-33 13	123101136-37 **Location:** Rm 402 / Chalkboard Glue Dots		NA/PS
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
MH-34 14	123101136-38 **Location:** Rm 113B / Linoleum Tiles	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2.0%, Non-fibrous 98%			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-35 14	123101136-39 **Location:** Rm 113B / Linoleum Tiles	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2.0%, Non-fibrous 98%			
MH-36 15	123101136-40 **Location:** Rm 223 / Vertical Metal-Covered Pipe Ins Mastic	***Yes***	2.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Silver/Brown/Black, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.0% **Other Material:** Cellulose 33%, Non-fibrous 65%			
MH-37 16	123101136-41 **Location:** Rm 115 / 3" Pipe Fitting Insulation	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Yellow, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 100%			
MH-38 17	123101136-42 **Location:** Rm 117 / 3" Pipe Insulation	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White/Yellow, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2.0%, Fibrous glass 90%, Non-fibrous 8.0%			
MH-39 16	123101136-43 **Location:** Rm 100 / 4" Pipe Fitting Insulation	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 5.0%, Fibrous glass 35%, Non-fibrous 60%			
MH-40 17	123101136-44 **Location:** @ SE Corner To Door To Rm 100 / 4" Pipe Insulation	***Yes***	25% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Amosite 25% **Other Material:** Non-fibrous 75%			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-41 17	123101136-45 **Location:** Rm 115 / 2" Pipe Insulation	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White/Yellow/Silver, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 20%, Fibrous glass 40%, Non-fibrous 40%			
MH-42 16	123101136-46 **Location:** Rm 117 /2" Pipe Fitting Ins	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Silver/Black/Yellow, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 5.0%, Fibrous glass 90%, Non-fibrous 5.0%			
MH-43 17	123101136-47 **Location:** Corridor @ Men's RR 120 / 5-6" Pipe Insulation	***Yes***	3.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White/Black, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.0% **Other Material:** Cellulose 5.0%, Fibrous glass 2.0%, Non-fibrous 90%			
MH-44 16	123101136-48 **Location:** Rm 100 / 5-6" Pipe Fitting Insulation	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White/Black, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 5.0%, Non-fibrous 95%			
MH-45 18	123101136-49 **Location:** Rm 201 / Roof Drain 6" Pipe Insulation	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Silver/Black/Yellow, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 10%, Fibrous glass 80%, Non-fibrous 10%			
MH-46 19A	123101136-50 **Location:** Rm 208H / Lab Countertop	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
(Report Amended 10/12/2023)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-47 19B	123101136-51 **Location:** Rm 207 / Lab Countertop	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-48 19C	123101136-52 **Location:** Rm 109 /Lab Countertop	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 100%, Non-fibrous Trace			
MH-49 19D	123101136-53 **Location:** Rm 114 / Lab Countertop	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Heterogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-50 20	123101136-54 **Location:** Rm 415 / 9" Gray Floor Tile	***Yes***	2.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.0% **Other Material:** Non-fibrous 98%			
MH-50 21	123101136-55 **Location:** Black Mastic Of MH-50A	***Yes***	5.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 5.0% **Other Material:** Non-fibrous 95%			
MH-51 22	123101136-56 **Location:** Rm 216 / 12" Off-White Floor Tile	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Off-White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-51 23	123101136-57 **Location:** Black Mastic Of MH-51A	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 3.0%, Non-fibrous 97%			
MH-52 24	123101136-58 **Location:** Women's RR 218 / 12" White Mottled Floor Tile	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-52 25	123101136-59 **Location:** Black Mastic Of MH-52A	***Yes***	3.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 3.0% **Other Material:** Non-fibrous 97%			
MH-53 26	123101136-60 **Location:** Rm 216D / 12" Mottled Tan Floor Tile	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Tan, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-53 27	123101136-61 **Location:** Mastic Of MH-53A	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 4.0%, Non-fibrous 96%			
MH-54 22	123101136-62 **Location:** Rm 323 / 12" Off-White Floor Tile	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Off-White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-54 28	123101136-63 **Location:** Mastic Of MH-54A	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Yellow, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2.0%, Non-fibrous 98%			
MH-55 29	123101136-64 **Location:** Elevator / 12" Off-White Mottled Floor Tile	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Off-White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-55 30	123101136-65 **Location:** Mastic Of MH-55A	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Yellow, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 3.0%, Non-fibrous 97%			
MH-56 20	123101136-66 **Location:** Rm 201 / 9" Gray Floor Tile	***Yes***	2.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.0% **Other Material:** Non-fibrous 98%			
MH-56 21	123101136-67 **Location:** Black Mastic Of MH-56A	***Yes***	4.0% (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.0% **Other Material:** Non-fibrous 96%			
MH-57 2B	123101136-68 **Location:** Corridor @ 404 / 2'x2' Ceiling Panel	***No***	NAD (by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 80%, Fibrous glass 5.0%, Non-fibrous 15%			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
(Report Amended 10/12/2023)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-58	123101136-69.1	***No***	NAD
9	**Location:** Women's RR 426 / Wall Plaster		(by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Skim Coat (Plaster)			
Asbestos Types:			
Other Material: Fibrous Talc 2.0%, Non-fibrous 98%			
MH-58	123101136-69.2	***No***	NAD
9	**Location:** Women's RR 426 / Wall Plaster		(by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Heterogeneous, Non-Fibrous, Cementitious, Base Coat (Plaster)			
Asbestos Types:			
Other Material: Cellulose Trace, Non-fibrous 100%			
MH-59	123101136-70.1	***No***	NAD
9	**Location:** Women's RR 322 / Wall Plaster		(by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Skim Coat (Plaster)			
Asbestos Types:			
Other Material: Fibrous Talc 2.0%, Non-fibrous 98%			
MH-59	123101136-70.2	***No***	NAD
9	**Location:** Women's RR 322 / Wall Plaster		(by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Heterogeneous, Non-Fibrous, Cementitious, Base Coat (Plaster)			
Asbestos Types:			
Other Material: Cellulose Trace, Non-fibrous 100%			
MH-60	123101136-71.1	***No***	NAD
9	**Location:** Rm 113A / Wall Plaster		(by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Skim Coat (Plaster)			
Asbestos Types:			
Other Material: Fibrous Talc 2.0%, Non-fibrous 98%			
MH-60	123101136-71.2	***No***	NAD
9	**Location:** Rm 113A / Wall Plaster		(by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Heterogeneous, Non-Fibrous, Cementitious, Base Coat (Plaster)			
Asbestos Types:			
Other Material: Cellulose Trace, Non-fibrous 100%			

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PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
(Report Amended 10/12/2023)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-61	123101136-72	***Yes***	2.0%
10	**Location:** Rm 105 / Interior Door Caulking		(by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: Gray, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 2.0% **Other Material:** Non-fibrous 98%			
MH-62	123101136-73	***No***	NAD
10	**Location:** Rm 406B / Interior Door Caulking		(by CVES) by Eric H. Ahles on 10/09/23
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			

Reporting Notes:

(1) Insufficient material submitted for accurate quantitation during PLM analysis (no QC possible).

Analyzed by: Eric H. Ahles  Reviewed by: Eric H. Ahles 
Date: 10/9/2023

*NAD = no asbestos detected, Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; "Present" or NVA = "No Visible Asbestos" are observations made during a qualitative analysis; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis using Meiji, Model MT 6130 microscope, Serial #1410298, by EPA 600/R-93/116 per 40 CFR 763 (NVLAP Lab Code 101904-0) and ELAP PLM Analysis Protocol 198.1 for New York friable samples which includes quantitation of any vermiculite observed (198.6 for NOB samples) or EPA 400 pt ct by EPA 600/M4-82-020 (NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.

AmeriSci Richmond	Report Amendment Explanation Form (append to amended report)	Date Amended 10/12/2023

Client: EEC INC

AmeriSci Job #: 123101136

Client Job: N-23-39

Analysis Type: PLM

AmeriSci Sample #s affected: 123101136-9, 10, 17, 19, 21, 45, 47, 66, 67, 73

Amended by (print/sign): Eric H. Ahles

Original Item(s) Being Amended: 9, 10, 17, 19, 21, 45, 47, 66, 67, 73

Changes Made: Samples analyzed

Reason for Changes: Client removed positive stop

Attach original sheet with incorrect item or items to be amended clearly indicated or circled.

Subject: Job no. 123101136
From: Donnie Mercer <dmercerjr@gmail.com>
Date: 10/12/2023, 11:29 AM
To: AmeriSci VA <varesults@amerisci.com>
CC: Mike Shrimanker <mshrimanker@eecincorporated.com>

Tony,
I had marked "Positive Stop" on some samples of this job that I now would like to have analyzed.
They include: MH-09, MH-10, MH-17, MH-19, MH-21,
MH-41, MH-43, MH-56, MH-56A, and MH-62. Could you please analyze the samples?

Thank you,
Donnie Mercer

Subject: Re: Job Problem - AmeriSci 123101136; N-23-39; NCSU Mann Hall Survey
From: "Donnie Ray Mercer Jr." <dmercer@eecincorporated.com>
Date: 10/4/2023, 12:57 PM
To: AmeriSci VA <varesults@amerisci.com>

Dear Angel,

Please analyze the one sample of wall plaster as you normally would. Change the designation number on the bag to correspond with the COC as only NH-26 .

Thank you,

Donnie

On 10/4/2023 12:24 PM, AmeriSci VA wrote:

> Hello
>
> We received Job N-23-39 (123-10-1136)
>
> Have Bag labeled 26A and 26B
>
> Job Problem: 26B is not on the COC.
>
> What would like to do?
>
> 1. Do not Analyze 26B
>
> 2. Add 26B to COC (Will need Description)
>
> Thank you
>
> Angel
>
> --
> Confidentiality Notice: Unless otherwise indicated, the information
> contained in this communication is confidential information for use of
> the individual named above. If the reader of this communication is not
> the intended recipient, you are hereby notified that any dissemination,
> distribution or copying of this communication is prohibited.
> If you have received this communication in error, please immediately notify
> the sender by telephone and return the original message to the above address
> via the US postal Service at our expense. Samples are disposed of in 60 days
> unless otherwise instructed by the protocol or special instructions in writing.
>
> Thank you for your business.

AMERI SCI

AMERISCI Richmond
Job No.#

128101136

AMERISCI RICHMOND
13635 GENITO ROAD
MIDLOTHIAN, VA 23112
PHONE: (804) 763-1200
FAX: (804) 763-1800
TOLL FREE (800) 476-6227
www.amerisci.com

EEC, INC

8502 Six Forks Road,
Suite 104,
Raleigh, NC 27615

P.O.#

SPECIAL INSTRUCTIONS:

PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X)							AIR FILTER INFORMATION:	
		6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other		
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.80 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 1	PLM	☐	☐	☐	☐	☒	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

RESULTS TO: EEC Inc — INVOICE TO: EEC. Inc — RETURN SAMPLES: YES ☐ NO ☒

EMAIL RESULTS: ☒ — EMAIL ADDRESS: mshrimanker@eecincorporated.com — PHONE: 919-291-6814

WRITTEN REPORT TO: EEC Inc. (Copies to eecinc@gmail.com & dmercerjr@gmail.com) — FAX:

COMMENTS: "Positive Stop on Samples of same HGA ID. — SITE FAX:

PAGER/CELL:

HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME	X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
1	MH-01	RM 415A / 2'x4' Ceiling Panel							9-29-23
1	MH-02	RM 202 / 2'x4' Ceiling Panel							"
1	MH-03	RM 109 / 2'x4' Ceiling Panel							"
2A	MH-04	Corridor @ 208G / 2'x2' Ceiling Panel							"
2A	MH-05	Corridor @ 402 / 2'x2' Ceiling Panel							"
2A	MH-06	Corridor @ 306 / 2'x2' Ceiling Panel							"
2B	MH-07	RM 106 / 2'x2' Ceiling Panel							"
3	MH-08	RM 200 / 1'x1' Ceiling Tiles							"
3	MH-09	RM 415 / 1'x1' Ceiling Tiles							"
3	MH-10	RM 301 / 1'x1' Ceiling Tiles							"
4	MH-11	RR 120 / 2'x2' Hard Ceiling Panel							"
4	MH-12	RR 120 / 2'x2' Hard Ceiling Panel							"
5	MR-13	Men's RR 427 / Ceiling Plaster							"
5	MR-14	Men's RR 324 / Ceiling Plaster							"
6	MR-15	RM 100 Ceiling / Fireproofing Spray-on							"
6	MR-16	RM 109 Ceiling / Fireproofing Spray-on							"
6	MR-17	RM 112 Ceiling / Fireproofing Spray-on							"
6	MR-18	RM 113 Ceiling / Fireproofing Spray-on							"
6	MR-19	RM 115 Ceiling / Fireproofing Spray-on							"
6	MR-20	RM 117 Ceiling / Fireproofing Spray-on							"

SAMPLED BY: D. Mercer & S. Halyard — DATE/TIME: 9-29-23 1441 Hrs.

Received By: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

Received In Lab By: — DATE/TIME: Received

PLEASE SEND COPIES OF ALL LAB RESULTS TO EMAIL: MSHRIMANKER@EECINCORPORATED.COM

OCT 04 2023

AMERISCI

CHAIN OF CUSTODY RECORD

AMERISCI Richmond Job No.# 123101136

AMERISCI RICHMOND
13635 GENITO ROAD
MIDLOTHIAN, VA 23112
PHONE: (804) 763-1200
FAX: (804) 763-1800
TOLL FREE (800) 476-5227
www.amerisci.com

EEC, INC	8502 Six Forks Road, Suite 104, Raleigh, NC 27615	P.O.#
		SPECIAL INSTRUCTIONS:

PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X) 6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other	AIR FILTER INFORMATION:	
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 2	PLM	☐	☐	☐	☐	☒	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

RESULTS TO: EEC Inc — INVOICE TO: EEC. Inc — RETURN SAMPLES: YES ☐ NO ☒

EMAIL RESULTS: ☒ — EMAIL ADDRESS: mshrimanker@eecincorporated.com — PHONE: 919-291-6814

WRITTEN REPORT TO: EEC Inc. (Copies to eecinc@gmail.com & dmercerjr@gmail.com) — FAX:

COMMENTS: "Positive Stop on Samples of same HGA ID. — SITE FAX:

PAGER/CELL:

HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
6	MH-21	RM 122 Ceiling / Fireproofing Spray-on						9-29-23
7	MH-22A	RM 416 / Sheetrock Wallboard						"
8	MH-22B	RM 416 / Wall Joint Compound Mud						"
7	MH-23A	RM 114 / Sheetrock Wallboard						"
8	MH-23B	RM 114 / Wall Joint Compound Mud						"
7	MH-24A	RM 308 / Sheetrock Wallboard						"
8	MH-24B	RM 308 / Wall Joint Compound Mud						"
7	MH-25A	RM 202 / Sheetrock Wallboard						"
8	MH-25B	RM 202 / Wall Joint Compound Mud						"
9	MH-26	RM 218 / Wall Plaster						"
10	MH-27	@ 306 / Interior Door Caulking						"
10	MH-28	@ 201 / Interior Door Caulking						"
11	MH-29	RM 122B / Coating on CMU Block Walls						"
11	MH-30	RM 122B / Coating on CMU Block Walls						"
12	MH-31	Corridor @ 407 / Cork Board Glue Dots						"
13	MH-32	RM 301 / Chalkboard Glue Dots						"
13	MH-33	RM 402 / Chalkboard Glue Dots						"
14	MH-34	RM 113B / Linoleum Tiles						"
14	MH-35	RM 113B / Linoleum Tiles						"
15	MH-36	RM 223 / Vertical Metal-covered Pipe Ins. Mastic						"

SAMPLED BY: D. Mercer & S. Halyard	DATE/TIME: 9-29-23 1441 Hrs.	Received By:	DATE/TIME:
RELINQUISHED BY:	DATE/TIME:	Received In Lab By:	DATE/TIME:

PLEASE SEND COPIES OF ALL LAB RESULTS TO EMAIL: MSHRIMANKER@EECINCORPORATED.COM

Received

OCT 04 2023

AMW

AMERISCI

AMERISCI Richmond Job No.# 123101136

AMERISCI RICHMOND
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EEC, INC

8502 Six Forks Road,
Suite 104,
Raleigh, NC 27615

P.O.#

SPECIAL INSTRUCTIONS:

PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X) 6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other	AIR FILTER INFORMATION:	
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 3	PLM	☐	☐	☐	☐	☒	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

RESULTS TO: EEC Inc INVOICE TO: EEC. Inc RETURN SAMPLES: YES ☐ NO ☒

EMAIL RESULTS: ☒ EMAIL ADDRESS: mshrimanker@eecincorporated.com PHONE: 919-291-6814

WRITTEN REPORT TO: EEC Inc. (Copies to eecinc@gmail.com & dmercerjr@gmail.com) FAX:

COMMENTS: *Positive Stop on Samples of same HGA ID. SITE FAX:

PAGER/CELL:

HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME	X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
16	MH-37	RM 115 / 3" Pipe Fitting Insulation							9-29-23
17	MH-38	RM 117 / 3" Pipe Insulation							"
16	MH-39	RM 100 / 4" Pipe Fitting Insulation							"
17	MH-40	@ SE Corner Door to RM 100 / 4" Pipe Insulation							"
17	MH-41	RM 117 / 2" Pipe Insulation							"
16	MH-42	Corridor @ Men's RR 120 / 2" Pipe Fitting Ins.							"
17	MH-43	RM 100 / 5-6" Pipe Insulation							"
16	MH-44	RM 100 / 5-6" Pipe Fitting Insulation							"
18	MH-45	RM 201 / Roof Drain 6" Pipe Insulation							"
19A	MH-46	RM 208H / Lab Countertop							"
19B	MH-47	RM 207 / Lab Countertop							"
19C	MH-48	RM 109 / Lab Countertop							"
19D	MH-49	RM 114 / Lab Countertop							"
20	MH-50A	RM 415 / 9" Gray Floor Tile							"
21	MH-50B	Black Mastic of MH-50A							"
22	MH-51A	RM 216 / 12" Off-white Floor Tile							"
23	MH-51B	Black Mastic of MH-51A							"
24	MH-52A	Women's RR 218 / 12" White Mottled Floor Tile							"
25	MH-52B	Black Mastic of MH-52A							"
26	MH-53A	RM 216D / 12" Mottled Tan Floor Tile							"

SAMPLED BY: D. Mercer & S. Halyard DATE/TIME: 9-29-23 1441 Hrs.

Received By: DATE/TIME:

RELINQUISHED BY: DATE/TIME:

Received In Lab By: DATE/TIME:

PLEASE SEND COPIES OF ALL LAB RESULTS TO EMAIL: MSHRIMANKER@EECINCORPORATED.COM

Received

OCT 04 2023

RAW

AMERISCI

CHAIN OF CUSTODY RECORD

AMERISCI Richmond Job No.# 123101136

AMERISCI RICHMOND
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MIDLOTHIAN, VA 23112
PHONE: (804) 763-1200
FAX: (804) 763-1800
TOLL FREE (800) 476-5227
www.amerisci.com

EEC, INC	8502 Six Forks Road, Suite 104, Raleigh, NC 27615	P.O.#
		SPECIAL INSTRUCTIONS:

PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X) 6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other	AIR FILTER INFORMATION:	
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	8MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 4	PLM	☐	☐	☐	☐	☒	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

RESULTS TO: EEC Inc — INVOICE TO: EEC. Inc — RETURN SAMPLES: YES ☐ NO ☒

EMAIL RESULTS: ☒ — EMAIL ADDRESS: mshrimanker@eecincorporated.com — PHONE: 919-291-6814

WRITTEN REPORT TO: EEC Inc. (Copies to eecinc@gmail.com & dmercerjr@gmail.com) — FAX:

COMMENTS: "Positive Stop on Samples of same HGA ID. — SITE FAX:

PAGER/CELL:

HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
27	MH-53B	Mastic of MH-53A						9-29-23
22	MH-54A	RM 323 / 12" Off-white Floor Tile						"
28	MH-54B	Mastic of MH-54A						"
29	MH-55A	Elevator / 12" Off-white mottled Floor Tile						"
30	MH-55B	Mastic of MH-55A						"
20	MH-56A	RM 201 / 9" Gray Floor Tile						"
21	MH-56B	Black Mastic of MH-56A						"
2B	MH-57	Corridor @ 404 / 2'x2' Ceiling Panel						"
9	MH-58	Women's RR 426 / Wall Plaster						"
9	MH-59	Women's RR 322 / Wall Plaster						"
9	MH-60	RM 113A / Wall Plaster						"
10	MH-61	RM 105 / Interior Door Caulking						"
10	MH-62	RM 406B / Interior Door Caulking						"

SAMPLED BY: D. Mercer & S. Halyard — DATE/TIME: 9-29-23 1441 Hrs. — Received By: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME: — Received In Lab By: — DATE/TIME:

PLEASE SEND COPIES OF ALL LAB RESULTS TO EMAIL: MSHRIMANKER@EECINCORPORATED.COM

Received
OCT 04 2023

AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: 8047631200 FAX: 8047631800

October 12, 2023

EEC INC
Attn: Donnie Mercer Jr
8514 Six Forks Road
Suite 101
Raleigh, NC 27615

RE: EEC INC
Job Number 123101325
P.O. #N-23-39
N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples - Page 5

Dear Donnie Mercer Jr:

Enclosed are the results for PLM asbestos analysis of the following EEC INC samples received at AmeriSci on Monday, October 9, 2023, for a 3 day turnaround:

MH-63, MH-64, MH-65, MH-66, MH-67, MH-68, MH-69, MH-70, MH-71, MH-72, MH-73, MH-74, MH-75, MH-76

The 14 samples contained in zip lock bag were shipped to AmeriSci via Fed Ex 8175 6326 3407 B 855. These samples were prepared and analyzed according to EPA PLM Method (EPA 600/R-93/116 Section 2.2). The required analytical information, analysis results, analyst signature and laboratory identification are contained in the PLM Bulk Asbestos Report. If TEM analysis was requested for selected samples the gravimetric reduction data (by Sec 2.3) and TEM Asbestos % (by Sec 2.5) are included in Table 1 along with a summary of Asbestos % by PLM for all samples analyzed.

This report relates ONLY to the sample analysis expressed as % asbestos. AmeriSci assumes no responsibility for customer supplied data such as “sample type”, "location", or “area sampled”. This report must not be used to claim product endorsement by AmeriSci, NVLAP or any agency of the U. S. Government. The National Institute of Standards and Technology accreditation requirements mandate that this report must not be reproduced, except in full, without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Glenn F. Massey

QA Manager | Authorized Signatory

AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: (804) 763-1200 • FAX: (804) 763-1800

PLM Bulk Asbestos Report

EEC INC
Attn: Donnie Mercer Jr
8514 Six Forks Road
Suite 101
Raleigh, NC 27615

Date Received 10/09/23
Date Examined 10/12/23

AmeriSci Job # 123101325
P.O. #
Page 1 **of** 3

RE: N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples - Page 5

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-63 31	123101325-01 **Location:** Main Roof Level - Southeast / Roof Core	***No***	NAD (by CVES) by C. David Mintz on 10/12/23
Analyst Description: Black, Heterogeneous, Fibrous, Roofing **Asbestos Types:** **Other Material:** Fibrous glass 4.0%, Non-fibrous 96%			
MH-64 31	123101325-02 **Location:** Main Roof Level - North Middle / Roof Core	***No***	NAD (by CVES) by C. David Mintz on 10/12/23
Analyst Description: Black, Heterogeneous, Fibrous, Roofing **Asbestos Types:** **Other Material:** Fibrous glass 4.0%, Non-fibrous 96%			
MH-65 31	123101325-03 **Location:** Structural Lab Area - Southeast / Roof Core	***No***	NAD (by CVES) by C. David Mintz on 10/12/23
Analyst Description: Black, Heterogeneous, Fibrous, Roofing **Asbestos Types:** **Other Material:** Fibrous glass 4.0%, Non-fibrous 96%			
MH-66 31	123101325-04 **Location:** Lower (2nd Flr) Level -Northweast / Roof Core	***No***	NAD (by CVES) by C. David Mintz on 10/12/23
Analyst Description: Brown / Black, Heterogeneous, Fibrous, Roofing **Asbestos Types:** **Other Material:** Fibrous glass 3.0%, Non-fibrous 97%			
MH-67 32	123101325-05 **Location:** Main Rf LvL - NNW Pene. / Roof Flash Sealant	***No***	NAD (by CVES) by C. David Mintz on 10/12/23
Analyst Description: White/ Black, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 3.0%, Non-fibrous 97%			

See Reporting notes on last page

PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
- Page 5

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-68 33	123101325-06 **Location:** Main Rf LvL - NNW Pene. / Roof Flash Sealant	***No***	NAD (by CVES) by C. David Mintz on 10/12/23
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-69 34	123101325-07 **Location:** Main Rf LvL - West Pene. / Roof Flash Sealant	***No***	NAD (by CVES) by C. David Mintz on 10/12/23
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-70 35	123101325-08 **Location:** Lwr Lvl Column - North / Roof Flash Sealant	***No***	NAD (by CVES) by C. David Mintz on 10/12/23
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-71 36	123101325-09 **Location:** Lwr Lvl Column - NE / Roof Flash Sealant	***Yes***	5.0% (by CVES) by C. David Mintz on 10/12/23
Analyst Description: Black, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** Chrysotile 5.0% **Other Material:** Non-fibrous 95%			
MH-72 37	123101325-10 **Location:** Lwr Lvl Column - NNE / Roof Flash Sealant	***No***	NAD (by CVES) by C. David Mintz on 10/12/23
Analyst Description: Black, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2.0%, Fibrous glass 2.0%, Non-fibrous 96%			

See Reporting notes on last page

PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
- Page 5

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-73	123101325-11	***No***	NAD
38	**Location:** Lwr Lvl Column - Middle Pen / Roof Flash Sealant		(by CVES) by C. David Mintz on 10/12/23
Analyst Description: Black/ Silver, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 4.0%, Non-fibrous 96%			
Comment: Fiberglass-based mesh webbing and Silver Metallic Foil embedded in Tar.			
MH-74	123101325-12	***No***	NAD [1]
39	**Location:** Lwr Lvl Column - NE / Textured Finish Coat		(by CVES) by C. David Mintz on 10/12/23
Analyst Description: Lt Beige/ Gray, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100%			
MH-75	123101325-13	***No***	NAD [1]
39	**Location:** Lwr Lvl Column - NW / Textured Finish Coat		(by CVES) by C. David Mintz on 10/12/23
Analyst Description: Lt. Beige/ Gray, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100%			
MH-76	123101325-14	***No***	NAD
40	**Location:** Lwr Lvl - NW Corn Pen / Roof Flash Seal 2:09		(by CVES) by C. David Mintz on 10/12/23
Analyst Description: Black, Homogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 3.0%, Non-fibrous 97%			

Reporting Notes:

(1) Sample homogenized by grinding to a powder prior to analysis.

Analyzed by: C. David Mintz
Date: 10/12/2023

Reviewed by: C. David Mintz

*NAD = no asbestos detected, Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; "Present" or NVA = "No Visible Asbestos" are observations made during a qualitative analysis; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis using Olympus, Model BH-2 microscope, Serial #210972, by EPA 600/R-93/116 per 40 CFR 763 (NVLAP Lab Code 101904-0) and ELAP PLM Analysis Protocol 198.1 for New York friable samples which includes quantitation of any vermiculite observed (198.6 for NOB samples) or EPA 400 pt ct by EPA 600/M4-82-020 (NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.

AMERI SCI

CHAIN OF CUSTODY RECORD

AMERISCI RICHMOND
13635 GENITO ROAD
MIDLOTHIAN, VA 23112
PHONE: (804) 763-1200
FAX: (804) 763-1800
TOLL FREE (800) 476-5227
www.amerisci.com

AMERISCI Richmond
Job No.# 123-10-1325

EEC, INC	8502 Six Forks Road, Suite 104, Raleigh, NC 27615	**P.O.#** **SPECIAL INSTRUCTIONS:**

PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X) 6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other	AIR FILTER INFORMATION:	
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 5	PLM	☐	☐	☐	☐	☒	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

RESULTS TO: EEC Inc **INVOICE TO:** EEC. Inc **RETURN SAMPLES:** YES ☐ NO ☒
EMAIL RESULTS: ☒ **EMAIL ADDRESS:** mshrimanker@eecincorporated.com **PHONE:** 919-291-6814
WRITTEN REPORT TO: EEC Inc. (Copies to eecinc@gmail.com & dmercerjr@gmail.com) **FAX:**
COMMENTS: *Positive Stop on Samples of same HGA ID. **SITE FAX:**
PAGER/CELL:

HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
31	MH-63	Main Roof Level - Southeast / Roof Core						10-6-23
31	MH-64	Main Roof Level - North middle / Roof Core						"
31	MH-65	Structural Lab Area - Southeast / Roof Core						"
31	MH-66	Lower (2nd Flr.) Level - Northeast / Roof Core						"
32	MH-67	Main Rf. Lvl.-NNW Pene./Roof Flash. Sealant						"
33	MH-68	Main Rf. Lvl.-NNW Pene./Roof Flash. Sealant						"
34	MH-69	Main Rf. Lvl.-West Pene./Roof Flash. Sealant						"
35	MH-70	Lwr. Lvl. Column - North / Roof Flash. Sealant						"
36	MH-71	Lwr. Lvl. Column - NE/ Roof Flash. Sealant						"
37	MH-72	Lwr. Lvl. - NNE Pene./ Roof Flash. Sealant						"
38	MH-73	Lwr. Lvl.- Middle Pen./ Roof Flash. Sealant						"
39	MH-74	Lwr. Lvl. Column - NE/ Textured Finish Coat						"
39	MH-75	Lwr. Lvl. Column - NW/ Textured Finish Coat						"
40	MH-76	Lwr. lvl.- NW corn. Pen./Roof Flash. Seal.2:09						"

SAMPLED BY: Donnie Mercer Jr. DATE/TIME: 10-6-23 1545 Hrs. Received By: DATE/TIME:

RELINQUISHED BY: DATE/TIME: Received in Lab By: DATE/TIME:

PLEASE SEND COPIES OF ALL LAB RESULTS TO EMAIL: MSHRIMANKER@EECINCORPORATED.COM

Received
OCT 09 2023

AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: 8047631200 FAX: 8047631800

October 19, 2023

EEC INC
Attn: Donnie Mercer Jr
8514 Six Forks Road
Suite 101
Raleigh, NC 27615

RE: EEC INC
Job Number 123101706
P.O. #N-23-39
N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples - Page 6

Dear Donnie Mercer Jr:

Enclosed are the results for PLM asbestos analysis of the following EEC INC samples received at AmeriSci on Wednesday, October 18, 2023, for a 24 hour turnaround:

MH-77A, MH-77B, MH-78A, MH-78B

The 4 samples contained in zip lock bag were shipped to AmeriSci via Fed Ex 8175 6326 3418 B 925. These samples were prepared and analyzed according to EPA PLM Method (EPA 600/R-93/116 Section 2.2). The required analytical information, analysis results, analyst signature and laboratory identification are contained in the PLM Bulk Asbestos Report. If TEM analysis was requested for selected samples the gravimetric reduction data (by Sec 2.3) and TEM Asbestos % (by Sec 2.5) are included in Table 1 along with a summary of Asbestos % by PLM for all samples analyzed.

This report relates ONLY to the sample analysis expressed as % asbestos. AmeriSci assumes no responsibility for customer supplied data such as “sample type”, "location", or “area sampled”. This report must not be used to claim product endorsement by AmeriSci, NVLAP or any agency of the U. S. Government. The National Institute of Standards and Technology accreditation requirements mandate that this report must not be reproduced, except in full, without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Glenn F. Massey

QA Manager | Authorized Signatory

AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: (804) 763-1200 • FAX: (804) 763-1800

PLM Bulk Asbestos Report

EEC INC
Attn: Donnie Mercer Jr
8514 Six Forks Road
Suite 101
Raleigh, NC 27615

Date Received 10/18/23
Date Examined 10/19/23

AmeriSci Job # 123101706
P.O. #
Page 1 **of** 2

RE: N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples - Page 6

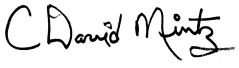
Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
MH-77A	123101706-01	***Yes***	3.0% (by CVES) by C. David Mintz on 10/19/23
Location: RM 105/12" Greenish-White Streaks Floor Tile			
Analyst Description: Green, Homogeneous, Fibrous, Floor Tile **Asbestos Types:** Chrysotile 3.0% **Other Material:** Non-fibrous 97%			
MH-77B	123101706-02		NA
Location: Mastic Of MH-77A			
Analyst Description: Insufficient Material **Asbestos Types:** **Other Material:**			
MH-78A	123101706-03	***No***	NAD (by CVES) by C. David Mintz on 10/19/23
Location: RM 204/12" Mottled Off-White & Gray Floor Tile			
Analyst Description: Off-White - Grey, Homogeneous, Non-Fibrous, Floor Tile **Asbestos Types:** **Other Material:** Non-fibrous 100%			
MH-78B	123101706-04	***No***	NAD (by CVES) by C. David Mintz on 10/19/23
Location: Mastic Of MH-78A			
Analyst Description: Black, Homogeneous, Fibrous, Mastic **Asbestos Types:** **Other Material:** Cellulose 3.0%, Non-fibrous 97%			

See Reporting notes on last page

PLM Bulk Asbestos Report

N-23-39; NCSU - Mann Hall Survey; Asbestos Survey Samples
- Page 6

Reporting Notes:

Analyzed by: C. David Mintz 

Reviewed by: C. David Mintz 

Date: 10/19/2023

*NAD = no asbestos detected, Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; "Present" or NVA = "No Visible Asbestos" are observations made during a qualitative analysis; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis using Olympus, Model BH-2 microscope, Serial #210972, by EPA 600/R-93/116 per 40 CFR 763 (NVLAP Lab Code 101904-0) and ELAP PLM Analysis Protocol 198.1 for New York friable samples which includes quantitation of any vermiculite observed (198.6 for NOB samples) or EPA 400 pt ct by EPA 600/M4-82-020 (NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.

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www.amerisci.com

AMERISCI Richmond
Job No.# 123101706

EEC, INC	8502 Six Forks Road, Suite 104, Raleigh, NC 27615	**P.O.#** **SPECIAL INSTRUCTIONS:**

PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X) 6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	Other	AIR FILTER INFORMATION:	
JOB NAME: NCSU - Mann Hall Survey	TEM/AHERA	☐	☐	☐	☐	☐	☐	☐	MCE	☐
	TEM/LEVEL II	☐	☐	☐	☐	☐	☐	☐	PC	☐
JOB NO.: N-23-39	TEM/7402	☐	☐	☐	☐	☐	☐	☐	25-MM	☐
	TEM/BULK	☐	☐	☐	☐	☐	☐	☐	37-MM	☐
JOB MANAGER: Donnie Mercer Jr.	TEM/DUST	☐	☐	☐	☐	☐	☐	☐	0.45 UM	☐
	TEM/WATER	☐	☐	☐	☐	☐	☐	☐	0.85 UM	☐
JOB DESCRIPTION: Asbestos Survey Samples - Page 6	PLM	☐	☐	☒	☐	☐	☐	☐	OTHER:	
	PCM	☐	☐	☐	☐	☐	☐	☐		
	OTHER	☐	☐	☐	☐	☐	☐	☐		

RESULTS TO: EEC Inc **INVOICE TO:** EEC. Inc
EMAIL RESULTS: ☒ **EMAIL ADDRESS:** mshrimanker@eecincorporated.com
WRITTEN REPORT TO: EEC Inc. (Copies to eecinc@gmail.com & dmercerjr@gmail.com)
COMMENTS: *Positive Stop on Samples of same HGA ID.

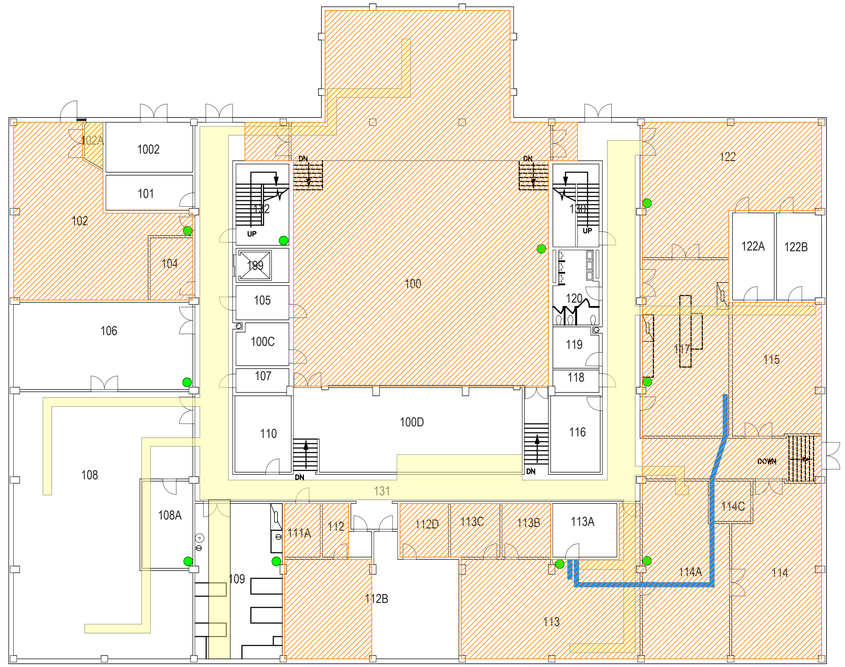
RETURN SAMPLES: YES ☐ NO ☒
PHONE: 919-291-6814
FAX:
SITE FAX:
PAGER/CELL:

HGA ID	SAMPLE ID	SAMPLE LOCATION / DESCRIPTION	START TIME	STOP TIME	TOTAL TIME X	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
41	MH-77A	RM 105 / 12" Greenish-White streaks Floor Tile						10-16-23
40	MH-77B	Mastic of MH-77A						"
42	MH-78A	RM 204/ 12" Mottled Off-white & Gray Floor Tile						"
43	MH-78B	Mastic of MH-78A						"

SAMPLED BY: Donnie Mercer Jr. DATE/TIME: 10-16-23 1800 Hrs.
Received By: DATE/TIME:
RELINQUISHED BY: DATE/TIME:
Received in Lab By: DATE/TIME:

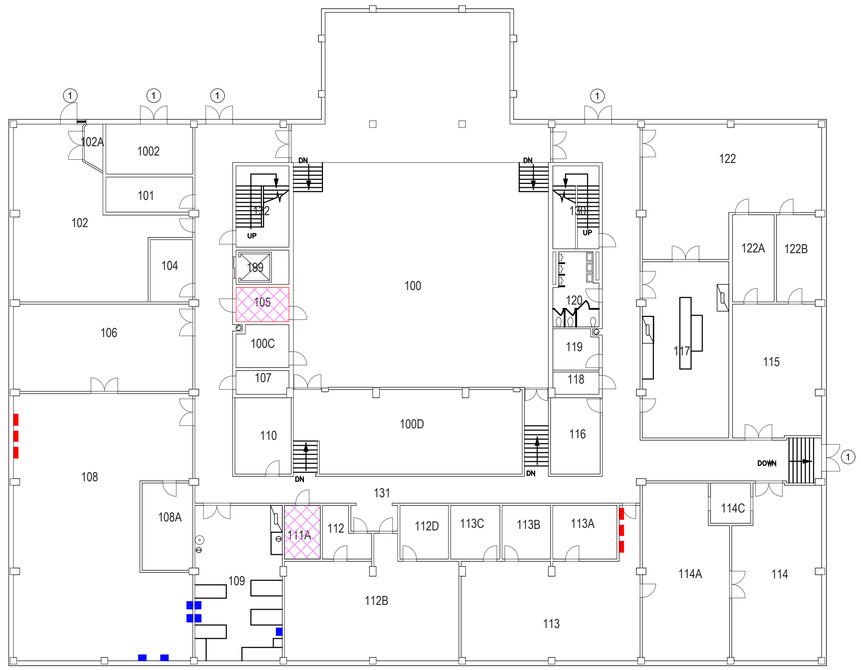
PLEASE SEND COPIES OF ALL LAB RESULTS TO EMAIL: MSHRIMANKER@EECINCORPORATED.COM

Received
OCT 18 2023



FIRST FLOOR - CEILING PLAN

1/16" = 1'-0"



FIRST FLOOR - FLOOR PLAN

1/16" = 1'-0"

LEGEND - MANN HALL FIRST FLOOR

- REMOVE AND DISPOSE OF ASBESTOS-CONTAINING SPRAY APPLIED CEILING TEXTURE FROM CONCRETE BEAMS AND DECKING
- REMOVE AND DISPOSE OF ASBESTOS-CONTAINING THERMAL SYSTEM PIPE INSULATION AND FITTINGS
- REMOVE AND DISPOSE OF ASBESTOS-CONTAINING CEMENTIOUS PIPE
- REMOVE AND DISPOSE OF ASBESTOS-CONTAINING 12"X12" GREEN FLOOR TILE FROM ROOM 105
- REMOVE AND DISPOSE OF ASBESTOS-CONTAINING AND PCB CONTAINING INTERIOR DOOR CAULK FROM ALL DOOR FRAMES AND ADJACENT SUBSTRATES.
- REMOVE AND DISPOSE OF ASBESTOS-CONTAINING CHALK BOARD/CORK BOARD MASTIC
- REMOVE AND DISPOSE OF ASBESTOS-CONTAINING DRAIN LINE INSULATION AND FITTINGS
- REMOVE AND DISPOSE OF ASBESTOS-CONTAINING SINK MASTIC
- (1) REMOVE AND DISPOSE OF PCB DOOR CAULK ON BOTH SIDES OF DOOR
- REMOVE AND DISPOSE OF PCB DUCT MASTIC FOUND ON EXTERIOR AND INTERIOR INSULATION THROUGHOUT FIRST FLOOR

GENERAL NOTES

THE SCOPE OF WORK INCLUDES THE REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING SPRAY APPLIED TEXTURE FROM CONCRETE BEAMS AND CEILINGS, FLOOR TILE, FLOOR TILE MASTIC, CEILING TILES, TRANSITE PIPE, THERMAL SYSTEM PIPE INSULATION, ROOF DRAIN INSULATION, CHALK BOARD MASTIC, CORK BOARD MASTIC, INTERIOR DOOR CAULKING, EXTERIOR FRONT STOREFRONT CAULKING, TOWER WINDOW CAULKING AND ROOF FLASHING MASTIC.

THE SCOPE OF WORK ALSO INCLUDES REMOVAL AND DISPOSAL OF PCB DOOR CAULK, WINDOW CAULK, VENT CAULK, DUCT MASTIC, BLOCK FILLER/PAINT, AND WINDOW GLAZING AS DESCRIBED IN THE ATTACHED PCB REMEDIATION PLAN.

THE SCOPE OF WORK ALSO INCLUDES THE DEMOLITION AND DISPOSAL OF INTERIOR WALLS WITH PCB BLOCK FILLER/PAINT INSIDE FULL NEGATIVE PRESSURE ENCLOSURES.

THIS DRAWING ACCOMPANIES ASBESTOS ABATEMENT TECHNICAL SPECIFICATIONS.

ASBESTOS ABATEMENT MUST BE PERFORMED INSIDE BOUNDARIES INDICATED ON THIS DRAWING.

THE ABATEMENT CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE SITE PRIOR TO BIDDING TO CONFIRM THE SCOPE OF THE WORK. BOUNDARIES AND LOCATIONS ARE APPROXIMATE. ANY QUANTITIES LISTED BY THE DESIGNER IN THE PLANS AND SPECIFICATIONS ARE DONE SO AS APPROXIMATIONS. THE ACTUAL QUANTITIES OF ASBESTOS-CONTAINING AND PCB MATERIAL TO BE ENCOUNTERED ARE THE RESPONSIBILITY OF THE ABATEMENT CONTRACTOR.

ASBESTOS ABATEMENT MUST BE PERFORMED INSIDE THE CONTAINMENT BOUNDARIES INDICATED ON THIS DRAWING AND INSIDE FULL NEGATIVE PRESSURE ENCLOSURES.

ESTIMATED QUANTITIES OF ASBESTOS-CONTAINING MATERIALS THROUGHOUT BUILDING

SPRAY APPLIED CEILING TEXTURE 20,000 SQUARE FEET

FLOOR TILE AND FLOOR TILE MASTIC 26,300 SQUARE FEET

12"X12" SPLINE CEILING TILES 33,000 SQUARE FEET

CEMENTITIOUS PIPE 100 LINEAR FEET

THERMAL SYSTEM PIPE INSULATION AND FITTINGS 2,000 LINEAR FEET

DRAIN LINE INSULATION 500 LINEAR FEET

CHALK BOARD MASTIC 500 SQUARE FEET

INTERIOR DOOR CAULK 202 DOOR FRAMES

SINK MASTIC 7 SINKS

EXTERIOR ROOF FLASHING MASTIC AND CURBING MASTIC - 100 SQUARE FEET

EXTERIOR WINDOW/DOOR CAULK - 2 FRONT ENTRY STORE FRONTS

EXTERIOR WINDOW GLAZING - SOUTH TOWER WINDOWS

PCB STOREFRONT CAULK - 2 EXTERIOR FRONT ENTRY STORE FRONTS

PCB STOREFRONT CAULK - 4 EXTERIOR REAR DOOR COMPLEXES

PCB WINDOW CAULK - SOUTH TOWER WINDOWS

PCB VENT CAULK - 6 EXTERIOR VENTS

PCB DOOR CAULK - 202 INTERIOR DOORS

PCB BLOCK WALLS - 50,000 SQUARE FEET

PCB DUCT INSULATION - 7,500 SQUARE FEET

0 4' 8' 12' 16' 32' 48'

NCSU

MATRIX Health & Safety Consultants, L.L.C.

ASBESTOS ABATEMENT PLAN
NCSU MANN HALL
RALEIGH, NORTH CAROLINA
240351

STAMP

NORTH CAROLINA ACCREDITED ASBESTOS 40357 GREGG E. HEPPERT

GREGG HEPPERT
N.C. ASBESTOS DESIGNER NO.40357

DATE:	11-13-24
DRAWN BY:	ACS
CHECKED BY:	G.E.H.
APPROVED BY:	G.E.H.

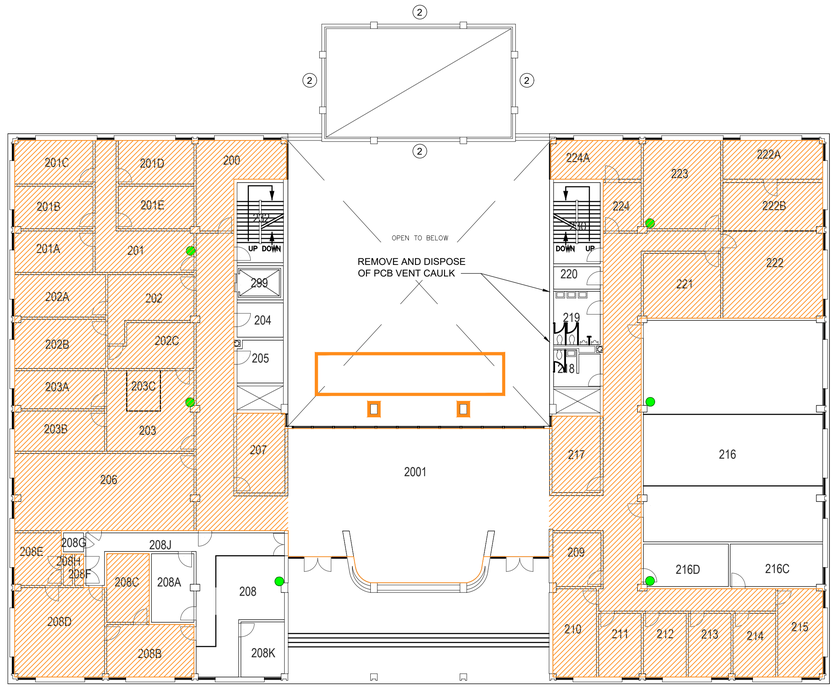
No	Revision	Date

Site:	RALEIGH
Building:	MANN HALL
Zone / Floor:	FIRST
Discipline:	.
Project:	.
Scale:	1/16 "=1'-0"

TITLE:
ASBESTOS ABATEMENT PLAN
FIRST FLOOR

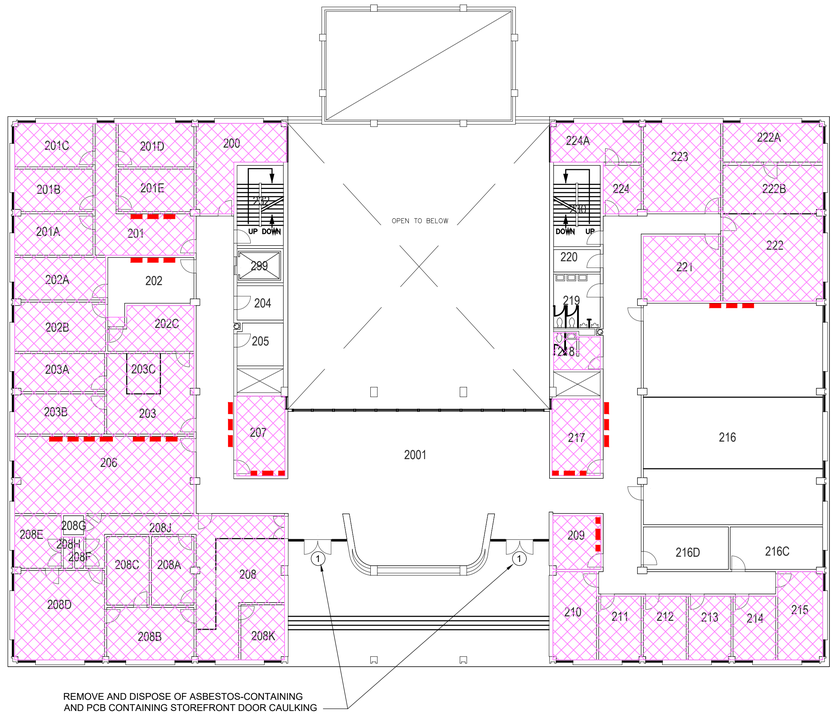
Drawing Number: AB-1

Rev:



SECOND FLOOR - CEILING PLAN

1/16" = 1'-0"



SECOND FLOOR - FLOOR PLAN

1/16" = 1'-0"

LEGEND - MANN HALL SECOND FLOOR

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING FLOOR TILE AND MASTIC

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING 12"X12" SPLINE CEILING TILES

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING AND PCB CONTAINING INTERIOR DOOR CAULK FROM ALL DOOR FRAMES AND ADJACENT SUBSTRATES THROUGHOUT SECOND FLOOR

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING CHALK BOARD/CORK BOARD MASTIC

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING DRAIN LINE INSULATION AND FITTINGS

REMOVE AND DISPOSE OF PCB MASTIC/GLUE FOUND ON EXTERIOR AND INTERIOR DUCT INSULATION THROUGHOUT SECOND FLOOR

(2) REMOVE AND DISPOSE OF ASBESTOS-CONTAINING AND PCB CONTAINING EXTERIOR WINDOW CAULK AND GLAZING FROM SOUTH TOWER WINDOWS AND AND ADJACENT SUBSTRATES.

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING ROOF FLASHING MASTIC AND ROOF CURBING MASTIC

REMOVE AND DISPOSE OF PBC VENT CAULK. APPROXIMATE LOCATION SHOWN ON DRAWING

GENERAL NOTES

THE SCOPE OF WORK INCLUDES THE REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING SPRAY APPLIED TEXTURE FROM CONCRETE BEAMS AND CEILINGS, FLOOR TILE, FLOOR TILE MASTIC, CEILING TILES, TRANSITE PIPE, THERMAL SYSTEM PIPE INSULATION, ROOF DRAIN INSULATION, CHALK BOARD MASTIC, CORK BOARD MASTIC, INTERIOR DOOR CAULKING, EXTERIOR FRONT STOREFRONT CAULKING, TOWER WINDOW CAULKING AND ROOF FLASHING MASTIC.

THE SCOPE OF WORK ALSO INCLUDES REMOVAL AND DISPOSAL OF PCB DOOR CAULK, WINDOW CAULK, VENT CAULK, DUCT MASTIC, BLOCK FILLER/PAINT, AND WINDOW GLAZING AS DESCRIBED IN THE ATTACHED PCB REMEDIATION PLAN.

THE SCOPE OF WORK ALSO INCLUDES THE DEMOLITION AND DISPOSAL OF INTERIOR WALLS WITH PCB BLOCK FILLER/PAINT INSIDE FULL NEGATIVE PRESSURE ENCLOSURES.

THIS DRAWING ACCOMPANIES ASBESTOS ABATEMENT TECHNICAL SPECIFICATIONS.

ASBESTOS ABATEMENT MUST BE PERFORMED INSIDE BOUNDARIES INDICATED ON THIS DRAWING.

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ASBESTOS ABATEMENT MUST BE PERFORMED INSIDE THE CONTAINMENT BOUNDARIES INDICATED ON THIS DRAWING AND INSIDE FULL NEGATIVE PRESSURE ENCLOSURES.

ESTIMATED QUANTITIES OF ASBESTOS-CONTAINING MATERIALS THROUGHOUT BUILDING

SPRAY APPLIED CEILING TEXTURE 20,105 SQUARE FEET

FLOOR TILE AND FLOOR TILE MASTIC 27,300 SQUARE FEET

12"X12" SPLINE CEILING TILES 33,000 SQUARE FEET

CEMENTITIOUS PIPE 100 LINEAR FEET

THERMAL SYSTEM PIPE INSULATION AND FITTINGS 2,000 LINEAR FEET

DRAIN LINE INSULATION 500 LINEAR FEET

CHALK BOARD MASTIC 500 SQUARE FEET

INTERIOR DOOR CAULK 202 DOOR FRAMES

SINK MASTIC 7 SINKS

EXTERIOR ROOF FLASHING MASTIC AND CURBING MASTIC - 100 SQUARE FEET

EXTERIOR WINDOW/DOOR CAULK - 2 FRONT ENTRY STORE FRONTS

EXTERIOR WINDOW GLAZING - SOUTH TOWER WINDOWS

PCB STOREFRONT CAULK - 2 EXTERIOR FRONT ENTRY STORE FRONTS

PCB STOREFRONT CAULK - 4 EXTERIOR REAR DOOR COMPLEXES

PCB WINDOW CAULK - SOUTH TOWER WINDOWS

PCB VENT CAULK - 6 EXTERIOR VENTS

PCB DOOR CAULK - 202 INTERIOR DOORS

PCB BLOCK WALLS - 50,000 SQUARE FEET

PCB DUCT INSULATION - 7,500 SQUARE FEET

0 4' 8' 12' 16' 32' 48'

NCSU

MATRIX Health & Safety Consultants, L.L.C.

ASBESTOS ABATEMENT PLAN
NCSU MANN HALL
RALEIGH, NORTH CAROLINA
240351

STAMP

NORTH CAROLINA ACCREDITED ABATEMENT 40357 GREGG E. HEPPERT

GREGG HEPPERT
N.C. ASBESTOS DESIGNER NO.40357
DATE: 11-13-24
DRAWN BY: ACS
CHECKED BY: G.E.H.
APPROVED BY: G.E.H.

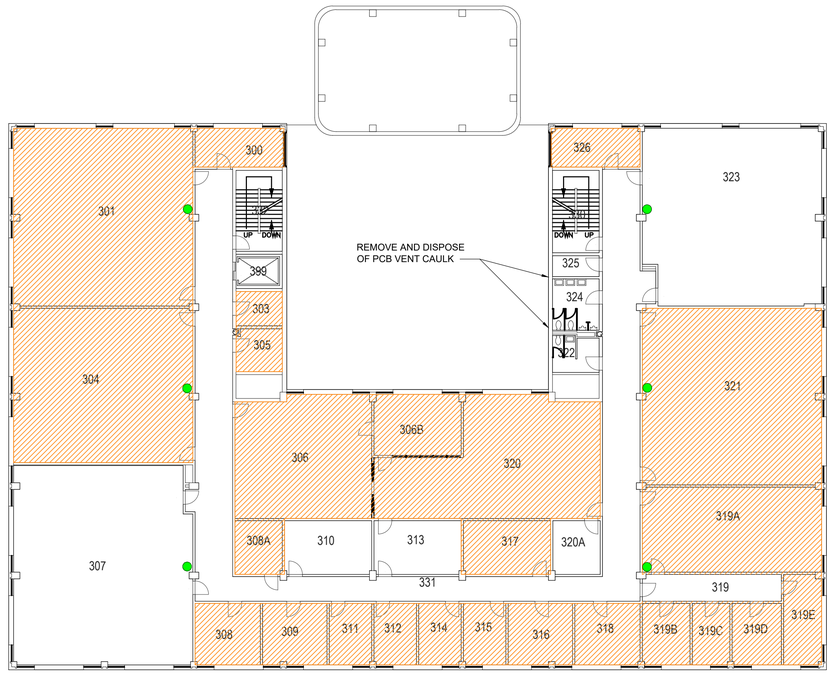
No	Revision	Date

Site:	RALEIGH
Building:	MANN HALL
Zone / Floor:	SECOND
Discipline:	.
Project:	.
Scale:	1/16 "=1'-0"

TITLE:
ASBESTOS ABATEMENT PLAN
SECOND FLOOR

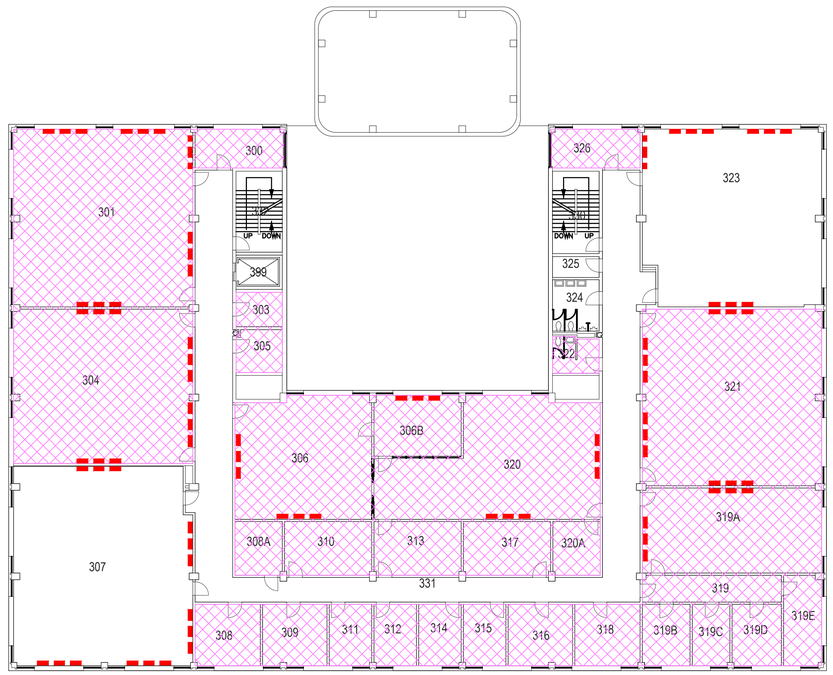
Drawing Number: AB-2

Rev:



THIRD FLOOR - CEILING PLAN

1/16" = 1'-0"



THIRD FLOOR - FLOOR PLAN

1/16" = 1'-0"

LEGEND - MANN HALL THIRD FLOOR

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING FLOOR TILE AND MASTIC

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING 12"X12" SPLINE CEILING TILES

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING AND PCB CONTAINING INTERIOR DOOR CAULK FROM ALL DOOR FRAMES AND ADJACENT SUBSTRATES THROUGHOUT THIRD FLOOR

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING CHALK BOARD/CORK BOARD MASTIC

REMOVE AND DISPOSE OF ASBESTOS-CONTAINING DRAIN LINE INSULATION AND FITTINGS

REMOVE AND DISPOSE OF PCB DUCT MASTIC FOUND ON EXTERIOR INSULATION THROUGHOUT THIRD FLOOR

REMOVE AND DISPOSE OF PBC VENT CAULK, APPROXIMATE LOCATION SHOWN ON DRAWING

REMOVE AND DISPOSE OF PCB MASTIC/GLUE FOUND ON EXTERIOR AND INTERIOR DUCT INSULATION THROUGHOUT THIRD FLOOR

GENERAL NOTES

THE SCOPE OF WORK INCLUDES THE REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING SPRAY APPLIED TEXTURE FROM CONCRETE BEAMS AND CEILINGS, FLOOR TILE, FLOOR TILE MASTIC, CEILING TILES, TRANSITE PIPE, THERMAL SYSTEM PIPE INSULATION, ROOF DRAIN INSULATION, CHALK BOARD MASTIC, CORK BOARD MASTIC, INTERIOR DOOR CAULKING, EXTERIOR FRONT STOREFRONT CAULKING, TOWER WINDOW CAULKING AND ROOF FLASHING MASTIC.

THE SCOPE OF WORK ALSO INCLUDES REMOVAL AND DISPOSAL OF PCB DOOR CAULK, WINDOW CAULK, VENT CAULK, DUCT MASTIC, BLOCK FILLER/PAINT, AND WINDOW GLAZING AS DESCRIBED IN THE ATTACHED PCB REMEDIATION PLAN.

THE SCOPE OF WORK ALSO INCLUDES THE DEMOLITION AND DISPOSAL OF INTERIOR WALLS WITH PCB BLOCK FILLER/PAINT INSIDE FULL NEGATIVE PRESSURE ENCLOSURES.

THIS DRAWING ACCOMPANIES ASBESTOS ABATEMENT TECHNICAL SPECIFICATIONS.

ASBESTOS ABATEMENT MUST BE PERFORMED INSIDE BOUNDARIES INDICATED ON THIS DRAWING.

THE ABATEMENT CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE SITE PRIOR TO BIDDING TO CONFIRM THE SCOPE OF THE WORK. BOUNDARIES AND LOCATIONS ARE APPROXIMATE. ANY QUANTITIES LISTED BY THE DESIGNER IN THE PLANS AND SPECIFICATIONS ARE DONE SO AS APPROXIMATIONS. THE ACTUAL QUANTITIES OF ASBESTOS-CONTAINING AND PCB MATERIAL TO BE ENCOUNTERED ARE THE RESPONSIBILITY OF THE ABATEMENT CONTRACTOR.

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ESTIMATED QUANTITIES OF ASBESTOS-CONTAINING MATERIALS THROUGHOUT BUILDING

SPRAY APPLIED CEILING TEXTURE 20,105 SQUARE FEET

FLOOR TILE AND FLOOR TILE MASTIC 27,300 SQUARE FEET

12"X12" SPLINE CEILING TILES 33,000 SQUARE FEET

CEMENTITIOUS PIPE 100 LINEAR FEET

THERMAL SYSTEM PIPE INSULATION AND FITTINGS 2,000 LINEAR FEET

DRAIN LINE INSULATION 500 LINEAR FEET

CHALK BOARD MASTIC 500 SQUARE FEET

INTERIOR DOOR CAULK 202 DOOR FRAMES

SINK MASTIC 7 SINKS

EXTERIOR ROOF FLASHING MASTIC AND CURBING MASTIC - 100 SQUARE FEET

EXTERIOR WINDOW/DOOR CAULK - 2 FRONT ENTRY STORE FRONTS

EXTERIOR WINDOW GLAZING - SOUTH TOWER WINDOWS

PCB STOREFRONT CAULK - 2 EXTERIOR FRONT ENTRY STORE FRONTS

PCB STOREFRONT CAULK - 4 EXTERIOR REAR DOOR COMPLEXES

PCB WINDOW CAULK - SOUTH TOWER WINDOWS

PCB VENT CAULK - 6 EXTERIOR VENTS

PCB DOOR CAULK - 202 INTERIOR DOORS

PCB BLOCK WALLS - 50,000 SQUARE FEET

PCB DUCT INSULATION - 7,500 SQUARE FEET

0 4' 8' 12' 16' 32' 48'

NCSU

MATRIX Health & Safety Consultants, L.L.C.

ASBESTOS ABATEMENT PLAN
NCSU MANN HALL
RALEIGH, NORTH CAROLINA
240351

STAMP

NORTH CAROLINA ACCREDITED ASBESTOS 40357 GREGG E. HEPPERT

GREGG HEPPERT
N.C. ASBESTOS DESIGNER NO.40357

DATE:	11-13-24
DRAWN BY:	ACS
CHECKED BY:	G.E.H.
APPROVED BY:	G.E.H.

No	Revision	Date

Site:	RALEIGH
Building:	MANN HALL
Zone / Floor:	THIRD
Discipline:	.
Project:	.
Scale:	1/16 "=1'-0"

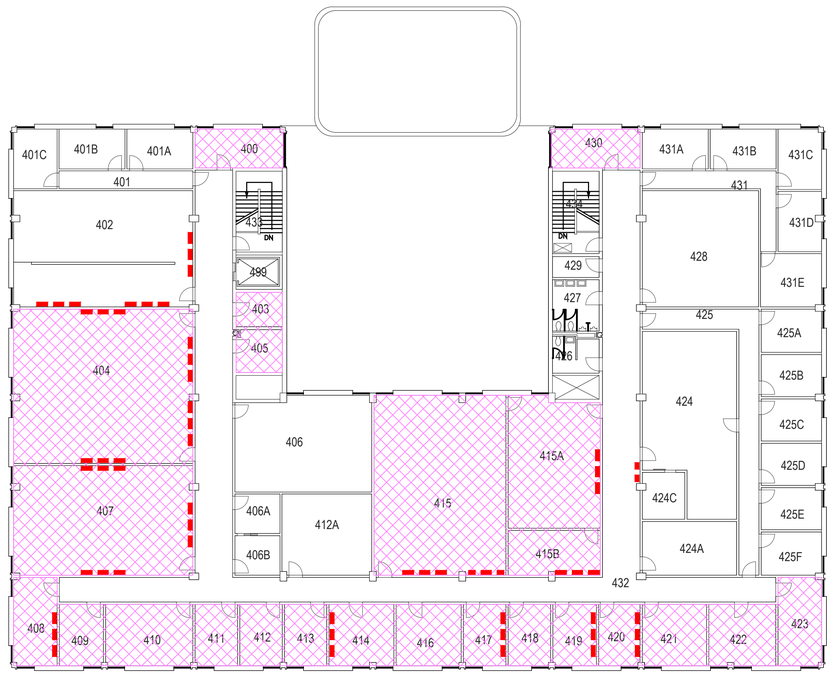
TITLE:
ASBESTOS ABATEMENT PLAN
THIRD FLOOR

Drawing Number: AB-3

Rev:

FOURTH FLOOR - CEILING PLAN

1/16" = 1'-0"



FOURTH FLOOR - FLOOR PLAN

1/16" = 1'-0"

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LEGEND - MANN HALL FOURTH FLOOR

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- REMOVE AND DISPOSE OF ASBESTOS-CONTAINING AND PCB CONTAINING INTERIOR DOOR CAULK FROM ALL DOOR FRAMES AND ADJACENT SUBSTRATES THROUGHOUT FOURTH FLOOR
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- REMOVE AND DISPOSE OF ASBESTOS-CONTAINING DRAIN LINE INSULATION AND FITTINGS
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- REMOVE AND DISPOSE OF PBC VENT CAULK. APPROXIMATE LOCATION SHOWN ON DRAWING
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NORTH CAROLINA ACCREDITED ASBESTOS 40357 GREGG E. HEPPERT

GREGG HEPPERT
N.C. ASBESTOS DESIGNER NO.40357

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No	Revision	Date

Site:	RALEIGH
Building:	MANN HALL
Zone / Floor:	FOURTH
Discipline:	.
Project:	.
Scale:	1/16 "=1'-0"

TITLE:
ASBESTOS ABATEMENT PLAN
FOURTH FLOOR

Drawing Number: AB-4

Rev: