

# **DIVISION 2**

## **SITE WORK**

BUSHEY FEIGHT MORIN ARCHITECTS INC.  
473 NORTH POTOMAC STREET  
HAGERSTOWN, MARYLAND 21740  
301-733-5600 FAX: 301-733-5612

PART 1 GENERAL

1.1 HAZARDOUS MATERIALS

- A. July 31, 2014, Triad Engineering, Inc., Asbestos-Containing Materials Abatement Specifications.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

**ASBESTOS-CONTAINING MATERIALS  
ABATEMENT SPECIFICATIONS**

**Washington County Central Administration Building  
100 and 120 West Washington Street  
Hagerstown, Maryland 21740**

**Triad Project No. 05-14-0037**

Prepared For:

Bushey Feight Morin Architects  
473 North Potomac Street  
Hagerstown, Maryland 21740

Prepared by:

Triad Engineering, Inc.  
21641 Beaumeade Circle  
Suite 300  
Ashburn, Virginia 20147

July 31, 2014

**ASBESTOS-CONTAINING MATERIALS  
ABATEMENT SPECIFICATION**

**Washington County Central Administration Building  
100 and 120 West Washington Street  
Hagerstown, Maryland 21740**

**TABLE OF CONTENTS**

Section	Page
<b>1.0 PURPOSE.....</b>	<b>1</b>
<b>2.0 SCOPE OF WORK.....</b>	<b>1</b>
2.1 SCOPE OF WORK.....	1
2.2 CONTRACTOR QUALIFICATIONS.....	2
2.3 COMPLIANCE .....	2
2.4 THIRD-PARTY INSPECTION AND PROJECT MONITORING .....	3
2.5 PROJECT TIME FRAME .....	3
2.6 LIQUIDATED DAMAGES.....	3
<b>3.0 REMOVAL AND DISPOSAL OF ASBESTOS MATERIALS.....</b>	<b>3</b>
3.1 REGULATIONS.....	3
3.2 GENERAL PROCEDURES .....	4
3.3 MEDICAL REQUIREMENTS .....	7
3.4 SAFETY COMPLIANCE .....	8
3.5 COMPETENT PERSON .....	10
3.6 WORK AREA DEMARCATION.....	10
3.7 ASBESTOS WORK AREA PREPARATION AND REMOVAL METHODS .....	10
3.8 FRIABLE ACM (CLASS I) REMOVAL USING GLOVE BAG TECHNIQUES – PIPE ELBOW .....	14
3.9 EXTERIOR ASBESTOS REMOVAL.....	15
3.10 POST-REMOVAL WORK INSPECTIONS .....	15
3.11 DECONTAMINATION PROCEDURES .....	15
3.12 WASTEWATER DISPOSAL.....	16
3.13 TOILET FACILITIES .....	16
3.14 EATING, DRINKING, SMOKING.....	16
3.15 AIR MONITORING .....	16
3.16 SITE INSPECTION .....	18
3.17 HOUSEKEEPING AND CLEANUP .....	18
3.18 DISPOSAL OF ASBESTOS.....	19
<b>4.0 GENERAL SAFETY REQUIREMENTS.....</b>	<b>19</b>
4.1 GENERAL.....	19
4.2 WORK CREWS.....	19
4.3 ELECTRICAL.....	19
4.4 WORK ENVIRONMENT .....	20

**ATTACHMENTS**

**ECS – HAZARDOUS MATERIALS SURVEY**

**TRIAD – LIMITED-SCOPE ASBESTOS-CONTAINING MATERIALS SURVEY REPORT**

**ASBESTOS-CONTAINING MATERIALS  
ABATEMENT SPECIFICATION**

**Washington County Central Administration Building  
100 and 120 West Washington Street  
Hagerstown, Maryland 21740**

**1.0 PURPOSE**

The purpose of these Specifications is to provide direction under which asbestos-containing materials (ACM) will be removed from the Washington County Central Administration Building at 820 Commonwealth Avenue, Hagerstown, Maryland 21740 during the Office Renovations Project as described in Request for Quotation (RFQ) INTG-13-002. Requests for information regarding technical matters should be directed to:

Mr. Aaron House  
Bushey Feight Morin Architects  
473 North Potomac Street  
Hagerstown, Maryland 21740

Phone: (301) 733-5600  
Email: AHouse@bfmarchitects.com

**2.0 SCOPE OF WORK**

**2.1 Scope of Work**

The Scope of Work consists of the removal of ACM from the above-mentioned facility. ACM present in the site structure are identified and quantified in the attached Hazardous Materials Survey Report completed by ECS Mid-Atlantic LLC (ECS) in November 2008 and the attached Limited-Scope Asbestos-Containing Materials Survey Report completed by Triad concurrently with this specification. Based on the information contained in these reports, ACM potentially affected by the project include:

<b>HA Number / Sample ID</b>	<b>Material Description</b>	<b>Location</b>	<b>Estimated Quantity</b>
ECS ASB-21, -22, -23	Mudded Pipe Elbow	120 W. Washington – Basement – Southwest Corner Mechanical Room	1 Elbow (All Other Elbows Removed).
ECS ASB-26	9" FT and Mastic	120 W. Washington – First Floor – Bank Vault	400 SF
ECS ASB-30, -31, -32	Black Floor Mat	120 W. Washington – First Floor – Southwest Stairwell	100 SF
ECS ASB-94, -95, -96	Sprayed Fireproofing	120 W. Washington – First Floor – Southwest Stairwell Above Plaster Ceiling at Landing	200 SF
ECS ASB-125, -126	Floor Sheeting	120 W. Washington – Third Floor – Closet Near Northeastern Stairwell	100 SF
Triad HA-5	White 9" Floor Tile (FT)	100 W. Washington – First Floor – Bank Vault	225 Square Feet (SF)
Triad 120 HA-5	White/Gray Caulk	120 W. Washington – Roof – Ventilation Stack & Chimneys	25 SF

HA = Homogenous Area

Note: Additional ACM, including 9" FT in basements of both structures and 2<sup>nd</sup> Floor File Room of 120 W. Washington, and linoleum mastic in Break Room of 120 W. Washington are present but not anticipated to be disturbed during renovation activity. Other ACM identified by ECS have been removed.

These are estimated quantities. The Contractor is responsible for verifying actual site conditions. Please refer to the ECS Hazardous Materials Survey Report and the Triad Limited-Scope Asbestos-Containing Materials Survey Report, for locations of listed ACM.

The Contractor shall perform all necessary services to assure the safety and protection of the Owner's personnel, protection of the environment, the prevention of personal and property damage in or to all surrounding property, and the best interests of the Owner. These services are to be completed in compliance with the removal procedures specified in Section 3.0, REMOVAL AND DISPOSAL OF ASBESTOS MATERIALS as well as all applicable U.S. Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and State of Maryland regulations.

## 2.2 Contractor Qualifications

- A. The Contractor and all personnel involved in performing asbestos abatement and disposal operations are required to be properly trained and must be licensed by the State of Maryland prior to the time of the initial job assignment and in accordance with 29 CFR 1926.1101. The Contractor shall have previously completed at least three (3) abatement projects of similar size and scope.
- B. The Contractor shall have a Competent Person/Supervisor present at all times during which asbestos abatement work on this contract is in progress. The Competent Person/Supervisor shall be thoroughly familiar with and experienced in asbestos removal and related work and shall be familiar with and shall enforce the use of all safety procedures and equipment. The Competent Person/Supervisor shall have supervised a minimum of three (3) abatement projects of similar size and scope.
- C. The Contractor's asbestos workers shall be licensed to perform asbestos work in the State of Maryland, must provide evidence of licensure, shall have worked on a minimum of two (2) abatement projects and have a minimum of six (6) months practical experience.

## 2.3 Compliance

1. The Contractor shall maintain copies of applicable standards and regulations, the Contract Documents including the project specifications, and the Contractor's respiratory protection program at the job site at all times.
2. Prior to beginning the work on the project, the Contractor shall submit verification to the Owner that the agencies listed below have been notified as applicable based upon the estimated quantity of ACM. Notification must be on standard forms sent at least ten (10) business days prior to beginning the work at the above-mentioned address. Written notification shall be made to each of the following:

Asbestos NESHAP Coordinator  
Mail Code 3LC62  
EPA Region III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103

Asbestos NESHAP Coordinator  
Maryland Department of the Environment  
Air Quality Compliance  
1800 Washington Boulevard  
Suite 725  
Baltimore, Maryland 21230

3. All requests for change orders shall be in writing prior to commencement of work that is out of the scope of work stated in this specification document and appendices.

#### 2.4 Third-Party Inspection and Project Monitoring

It shall be the responsibility of the Contractor to hire an independent, third-party testing and inspection agency (Project Monitor) to provide abatement project monitoring services for the duration of the project. The Building Owner will NOT be responsible for providing any asbestos project monitoring, inspection, or clearance testing.

#### 2.5 Project Time Frame

The Contractor shall comply with the Project Time Frame set forth in the Contract Documents.

#### 2.6 Liquidated Damages

The Contract between the Owner and Contractor contains a clause regarding liquidated damages. This sum shall not be considered as a penalty, but as a sum mutually agreed upon as the ascertained damages suffered by the Owner because of the delay.

### **3.0 REMOVAL AND DISPOSAL OF ASBESTOS MATERIALS**

#### 3.1 Regulations

The Contractor is responsible for adhering to all federal, state, and local regulations and directives applicable to the scope of work. All applicable federal, state, and local regulations and directives form a part of this specification by reference. Contractor shall submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting the work. Where the requirements of this specification and referenced documents vary, the most stringent requirements shall apply. If the level of stringency cannot be agreed upon, the decision of the Owner's Technical Representative shall be binding. The publications listed as follows form a part of this specification:

##### A. State of Maryland

1. Code of Maryland Regulations (COMAR) 26.11.21 Control of Asbestos Regulation

##### B. Codes of Federal Regulations (CFR)

1. 29 CFR 1910.134 Respiratory Protection
2. 29 CFR 1910.145 Accident Prevention Signs and Tags

3. 29 CFR 1910.1001 General Industry Standard and Appendix A-1
4. 29 CFR 1910.1200 Hazard Communication
5. 29 CFR 1926.55 Gases, Vapors, Fumes, Dust, and Mists
6. 29 CFR 1926.1101 Construction Industry Standard for Asbestos
7. 40 CFR 61 Subpart A: General Provisions
8. 40 CFR 61 Subpart M: EPA, National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos
9. 40 CFR 763 Asbestos Hazard Emergency Response Act (AHERA)
10. 49 CFR 178 Shipping Container Specification

### 3.2 General Procedures

#### A. Terminology

1. *Abatement*: Procedures to control and/or prevent fiber release from ACM. This includes encapsulation, enclosure, and removal.
2. *Air Monitoring*: The process of collecting and analyzing air samples to determine the number of fibers present per cubic centimeter of air during a specific period of time.
3. *Amended Water*: Water to which a surfactant has been added.
4. *Asbestos*: Asbestos means Actinolite, Amosite, Anthophyllite, Chrysotile, Crocidolite, or Tremolite.
5. *Asbestos-Containing Material*: Any material containing more than 1% (one percent) asbestos of any type or mixture.
6. *Asbestos Fibers*: This expression refers to asbestos fibers having an aspect ratio of 3:1 and longer than five micrometers.
7. *Authorized Person or Visitor*: The building Owner, Owner's representative, or a representative of any regulatory or other agency having jurisdiction over the project.
8. *Building Owner*: The Owner or its authorized representative.
9. *Class I Asbestos Work*: Defined in 29 CFR 1926.1101 as activities involving the removal of thermal system insulation (TSI) and surfacing ACM and presumed asbestos-containing material (PACM).



10. *Class II Asbestos Work*: Defined in 29 CFR 1926.1101 as activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.
11. *Competent Person*: In addition to the definition in 29 CFR 1926.32(f), one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32(f); in addition, for Class I and Class II work who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for project designer or supervisor, or its equivalent and for Class III and Class IV work who is trained in an operations and maintenance O&M course developed by EPA (40 CFR 763.92(a)(2)).
12. *Critical Barrier*: One or more layers of six-mil plastic sealed over all openings into a work area or any other similarly placed physical barrier sufficient to prevent airborne asbestos fibers in a work area from migrating to an adjacent area.
13. *Curtained Doorway*: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms, typically constructed by placing two overlapping layers of plastic sheeting over an existing or temporarily framed doorway, securing each along the top of the doorway, securing the vertical edge of one sheet along one vertical side of the doorway, and securing the vertical edge of the other sheet along the opposite vertical side of the doorway. Two curtained doorways spaced a minimum of six feet (two meters) apart constitute an airlock.
14. *Decontamination Enclosure System (Change Rooms)*: A series of connected rooms, with curtained doorways between any two adjacent rooms, for the decontamination of workers, materials and equipment. A decontamination enclosure system always contains at least one airlock.
15. *Differential Pressure*: A local exhaust system capable of maintaining a minimum pressure differential of negative 0.02 inch of water column relative to adjacent unsealed areas.
16. *Enclosure*: All herein specified procedures necessary to complete enclosure of all ACM behind airtight, impermeable, permanent barriers.
17. *Equipment Decontamination Enclosure System*: That portion of a decontamination unit designed specifically for controlled transfer of materials and equipment, typically consisting of a designated area of the work area, a washroom, a holding area, and an uncontaminated area.
18. *Equipment Room*: A contaminated area or room that is part of the worker decontamination enclosure system, with provisions for storage of contaminated clothing and equipment.

19. *Excursion Limit:* An airborne asbestos fiber concentration of asbestos in excess of 1.0 fiber per cubic centimeter (f/cc) as averaged over a sampling period of 30 minutes.
20. *Friable Asbestos Material:* Material that contains more than one percent (1%) asbestos and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.
21. *Fixed Object:* A unit of equipment or furniture in the work area that cannot be removed from the work area.
22. *HEPA Filter Equipment:* High Efficiency Particulate Air (HEPA) filtered vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Filters shall be of 99.97 percent efficiency for retaining fibers of 0.3 microns or larger.
23. *Holding Area:* A chamber between the washroom and an uncontaminated area in the equipment decontamination enclosure system. The holding area comprises an airlock.
24. *Intact:* Means that the ACM has not crumbled, been pulverized, or otherwise deteriorated so that the asbestos is no longer likely to be bound with its matrix.
25. *Movable Object:* A unit of equipment or furniture in the work area that can be removed from the work area.
26. *Negative Air Pressure Equipment:* A portable local exhaust system equipped with HEPA filtration and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent uncontaminated areas.
27. *Non-Friable Asbestos Material:* Material that contains more than one percent (1%) asbestos and that cannot be crumbled, pulverized, or reduced to powder by hand pressure when dry.
28. *Personal Monitoring:* Sampling of asbestos fiber concentrations within the breathing zone of an employee.
29. *Regulated Area:* An area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and/or any work area within which airborne concentrations of asbestos, exceed or there is a reasonable possibility they may exceed the permissible exposure limit.
30. *Removal:* All herein specified procedures necessary to remove ACM from the designated areas and to dispose of these materials at an acceptable site.
31. *Shower Room:* A room between the clean room and the equipment room in the worker decontamination enclosure system, with hot and cold or warm running water and suitably arranged for complete showering during decontamination. The shower room comprises an airlock between contaminated and clean areas.

32. *Surfactant*: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation.
  33. *Time-Weighted Average (TWA)*: A sample taken for a minimum of 75 percent of actual time worked throughout a work shift is required to establish the eight-hour TWA. The TWA is an eight-hour airborne concentration of fibers, longer than five micrometers, per cubic centimeter (f/cc) of air. The current OSHA Permissible Exposure Limit (PEL) is 0.1 f/cc. If any other level of concentration becomes effective during the course of this project, it shall govern the remaining work.
  34. *Washroom*: A room between the work area and the holding area in the equipment decontamination enclosure system. The washroom comprises an airlock.
  35. *Wet Cleaning*: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as asbestos-contaminated waste.
  36. *Work Area*: Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A contained work area is a work area which has been sealed, plasticized, and equipped with a decontamination enclosure system. A non-contained work area is an isolated or controlled access work area, which has not been plasticized nor equipped with a decontamination enclosure system.
  37. *Worker Decontamination Enclosure System*: That portion of a decontamination enclosure system designed specifically for controlled passage of workers and authorized persons or visitors, typically consisting of a clean room, a shower room, and an equipment room.
- B. Title to Materials – All materials resulting from demolition work, except as specified otherwise by the Building Owner, shall become the responsibility of the Contractor and shall be disposed of as specified herein.
- C. Protection of Existing Work to Remain – Asbestos abatement work shall be performed without damage to or contamination of adjacent work. Where such work is damaged or contaminated it shall be restored to its original condition as necessary.

### 3.3 Medical Requirements

Required for the following conditions:

- A. Employee performs OSHA Class I, II, or III work activities or is exposed at or above the PEL for more than a combined 30 days per year; or
- B. When respiratory protection is voluntary utilized or required.
  1. Medical Examinations – Provide workers with a comprehensive medical examination as required by OSHA Standard 29 CFR 1926.1101. This examination is not required

if adequate records show the employee has been examined as required by OSHA Standard 29 CFR 1926.1101 requirements within the past year. The same medical examination shall be given on an annual basis to employees engaged in an occupation involving asbestos fibers and within thirty (30) calendar days before or after the termination of employment in such occupation. Specifically identify x-ray films of asbestos workers and mark record jackets with the word "ASBESTOS."

2. Medical Record – Maintain complete and accurate records of employees' medical examinations for a period of thirty (30) years after termination of employment and make records of the required medical examinations available for inspection and copying to: The Assistant Secretary of Labor for Occupational Safety and Health, the Director of the NIOSH, authorized representatives of either of them, and an employee's physician upon the request of the employee or former employee.

### 3.4 Safety Compliance

In addition to detailed requirements of this specification, comply with all laws, ordinances, rules, and regulations regarding handling, storing, transporting, and disposing of asbestos waste materials. Comply with all the applicable requirements of the current issues of OSHA Standards 29 CFR 1910, and 1926, and EPA Standard 40 CFR 61.

#### A. Respirator Program

The Contractor shall maintain an established respirator program as required by ANSI Z88.2 and OSHA Standard 29 CFR 1910.134. The Contractor shall provide to each employee performing asbestos activities appropriate respiratory protection in accordance with OSHA 29 CFR 1926.1101.

1. Select respirators from those approved for exposure to asbestos fibers by NIOSH. Respirators shall be personally issued and fit tested to each employee.
2. Respirators for Handling Asbestos: Provide personnel engaged in the demolition and removal of asbestos materials with, at minimum, an air-purifying half mask respirator equipped with NIOSH-approved HEPA filters when conducting Class II asbestos removal for which a negative exposure assessment (NEA) has not been conducted. If an employee chooses to utilize a powered air-purifying respirator (PAPR) and it provides adequate protection to the employee, a PAPR must be provided by the employer. **Personnel engaged in Class I asbestos work shall be provided a PAPR. Specifically, this includes all work to remove Fireproofing from the Southwestern Stairwell on the First Floor of 120 W. Washington.**
3. Optional Respirators for Handling Asbestos: OSHA Standard 29 CFR 1926.1101 requires respirators if airborne concentrations of asbestos fibers are higher than the OSHA PEL of 0.1 f/cc for an eight-hour TWA. All respirators will be approved by NIOSH. When the exposure limits are established, the respirators presented in OSHA Standard 29 CFR 1926.1101 that afford adequate protection at such upper concentrations of airborne asbestos may be used. If the Contractor elects to provide respirators other than a PAPR, the Contractor shall determine the exposure of each employee to airborne asbestos during each phase of the removal operations.

4. If the Contractor has data from projects of a similar nature, he may submit such data to the Owner and use the appropriate respiratory protection based on these data until confirmation of concentration levels.

If the Contractor does not have an NEA, the Contractor must determine the eight-hour TWA concentration of asbestos to which each of the employees is exposed during each type of removal operation. Where filter type respirators are suitable for the work, the Contractor shall provide sufficient quantities of filters approved for asbestos so that workers can change filters during each work shift. Replacement filters shall be stored at the job site and shall be totally protected from exposure to asbestos prior to their use. The filters shall not be used longer than one work shift.

The Contractor shall instruct and train workers in proper respirator use in accordance with the requirements of the American National Standards Practices for Respiratory Protection (ANSI Z88.2-1969). The Contractor will ensure that workers and authorized visitors shall wear the appropriate respirator at all times while in the work area. Each employee shall be tested for respirator fit in accordance with the cited ANSI standard.

B. Special Clothing.

1. Protective Clothing: The Contractor shall provide personnel exposed to airborne concentrations of asbestos fibers above the OSHA PEL, including the Owner's Technical Representative and the Project Monitor, with fire retardant disposable protective whole body clothing, head coverings, gloves, and foot coverings. Provide disposable plastic or rubber gloves for comfort, not to be used alone. Make sleeves secure at the wrists and make foot coverings secure at the ankles by the use of tape.
2. Work Clothing: The Contractor shall provide cloth work clothes for wear under the disposable protective coveralls and foot coverings.

C. Eye Protection. Provide eye protection to personnel engaged in asbestos operations when the use of a full-face respirator is not required.

D. Hard Hat. Provide hard hats to personnel engaged in asbestos operations. Hard hats shall meet the specifications contained in American National Standards Institute, Z89.1-1969, Safety Requirements for Industrial Head Protection.

E. Caution Signs and Labels. Provide caution signs at all approaches to all asbestos removal work areas. Locate signs at such a distance that personnel may read the sign and take the necessary protective steps required before entering the area. Project notification signs shall be posted at all entrances and exits to the structure at least three days prior to beginning work. Provide labels and affix to all asbestos materials, scrap, waste, debris, and other products contaminated with asbestos.

Caution signs shall be in a format conforming to OSHA Standard 29 CFR 1926.1101, a minimum of 20 inches by 14 inches in size and displaying the following legend:

**DANGER  
ASBESTOS  
CANCER AND LUNG DISEASE HAZARD  
AUTHORIZED PERSONNEL ONLY  
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA**

3.5 Competent Person

The Contractor shall have a Competent Person/Supervisor present at all times when work on this contract is in progress. The Competent Person/Supervisor shall be thoroughly familiar and experienced with asbestos removal and related work and shall be familiar with and shall enforce the use of all safety procedures and equipment. He shall be knowledgeable of all EPA, OSHA, and State of Maryland requirements and guidelines.

3.6 Work Area Demarcation

- A. Prior to beginning asbestos abatement procedures, the Contractor shall post all OSHA and EPA documents and approved warning signs, at a minimum, and provide any physical barriers as may be required to protect his equipment as well as the work area from being entered by any unauthorized person(s).
- B. It shall be the Contractor's responsibility to secure the work area from entrance by unauthorized personnel. Only approved personnel whose names are submitted to the Contractor prior to starting abatement procedures shall be allowed in the work area. Any damage to the building is the responsibility of the Contractor where such damage resulted from his direct actions, vandalism, or weather-related damage in unprotected work areas.

3.7 Asbestos Work Area Preparation and Removal Methods

The Contractor shall perform all preparation and ACM removal activities in accordance with all applicable EPA, OSHA, State of Maryland, and local regulations. The following subsections are described as a minimum to prepare the work area.

- A. All removable fixtures, equipment, and miscellaneous items shall be removed from the immediate work area before work commences. The Contractor shall remove these items to an unaffected area within the building as directed by the Owner.
- B. All Owner property to remain in the work area shall be decontaminated before work commences by HEPA vacuuming and wet wiping, then stored along with other equipment.
- C. A three-stage decontamination unit shall be installed for each work area where Class I Asbestos Work is conducted and work areas where asbestos-containing floor tile removal is conducted using mechanical methods (i.e., not hand methods) that would result in greater than accidental breakage of the ACM. All means of ingress and egress shall be through the decontamination unit. The decontamination unit shall consist of a clean room, shower room, and an equipment room.

1. The shower room will be equipped with hot and cold or warm water and personal hygiene necessities.
2. All waste water will be collected and disposed of in accordance with EPA regulations.
3. The clean room shall have adequate storage for workers street clothes and personal affects.

D. Work Area Isolation, Prior to Asbestos Removal

1. The Contractor, if applicable, shall removal all detachable electrical, heating, ventilation, air-conditioning equipment or ducts, or other items located on or in contact with the ACM, these items shall be vacuumed with the HEPA-filtered vacuum and wet cleaned, wrapped in six-mil plastic, and stored in the work area, in another secure location, or disposed of as directed by the Owner. Any items requiring special protection shall be protected to the satisfaction of the Building Owner; however, the protection from damage shall be the sole responsibility of the Contractor.
2. Any existing air handlers, ventilation systems, heating and cooling systems, blowers, or other associated electrical equipment shall be shut down and isolated before work commences. All air intakes, diffusers, and vents shall be sealed with six-mil thick plastic and duct tape.
3. Once all items and openings have been sealed or removed, the entire work area (except the areas to be removed) shall be covered with a minimum of two layers of six-mil plastic sheeting on the walls, windows, and floors. Each section of sheeting shall be securely fastened to the next to provide an air and watertight seal. The intent is to not allow any materials or airflow to escape from the covered areas.
4. All joints in the six-mil plastic sheeting shall have a minimum of 12 inches of sheet overlap and be securely sealed from air, water, and moisture. Containment barriers shall be maintained until final clearance is achieved. Periodic inspections shall be made by the Competent Person during the project to assure that the integrity of the barriers is maintained.

- E. In work areas where asbestos-containing floor tile is conducted **only utilizing hand methods that do not result in greater than incidental breakage of ACM**, a “mini-containment” may be utilized around the localized work area consisting of a two-layered critical barrier between the work area and adjacent spaces and a single layer of six-mil plastic sheeting covering walls within the contained work area. For these areas, a two-stage decontamination system can be utilized consisting of a clean room and equipment room separated by an airlock. It should be noted that mechanical removal of floor tile, including use of long-handled pry bars or scrapers, is not considered a “hand method” by the Maryland Department of the Environment (MDE) and such activity shall be conducted in full containment as previously prescribed.

F. Local Exhaust System

1. **The Contractor shall provide a local exhaust system, ducted to the outdoors, in all asbestos removal areas, regardless of the method of removal, which will produce a negative differential pressure in comparison to the area outside the asbestos control area.** The local exhaust system shall be in accordance with ANSI Z9.2. Equip the local exhaust system with HEPA filters capable of trapping fibers to 0.3 microns at 99.97% efficiency. Local exhaust equipment must be sufficient to maintain a minimum of **four air changes per hour** in the removal area and provide a pressure differential recorder with alarm or manometer with strip chart recorder. The local exhaust equipment shall be in operation 24 hours per day until decontamination of the work area is completed and all odors related to the removal project are no longer detected as determined by the Owner and/or Project Monitor. **In no case shall the building ventilation system be used as the local exhaust system.**
2. It shall be requirement of the Contract that a negative air pressure be kept between negative 0.025 inch of water and negative 0.020 inch of water in the work area. If negative pressure falls at or below negative 0.020 inch of water, all abatement work is to stop until the required negative differential pressure is achieved.

G. The Contractor is responsible for providing power and connections adequate for operating machinery used to complete the removal work. Existing power may be used if available and approved by the Owner. However, if the equipment utilized by the Contractor requires additional power and/or connections, the Contractor is responsible for providing the needed power and connections. If necessary, provide temporary power and lighting and ensure safe installation of temporary power sources and equipment per applicable electrical code requirements; and provide safety lighting and ground-fault circuit interrupters (GFCIs) as a power source for electrical equipment if electric power is to be shut down.

H. The Contractor is required to provide adequate water and connections necessary for the removal process.

I. Maintain emergency and fire exits from work areas, or establish alternative exits satisfactory to the local fire officials.

J. It shall be assured that all personnel, including the Contractor's workers, the Project Monitor, and any authorized visitors, entering the regulated work areas use proper personal protective equipment.

K. If other contractors or trades are working on the same job site concurrent with asbestos abatement activities, they shall be informed that asbestos abatement operations are taking place, in accordance with OSHA Standard 29 CFR 1926.1101.

L. Removal Operations

1. After all work area isolation procedures have been satisfactorily performed, and the pre-removal inspection approved by the Project Monitor, the Contractor shall begin abatement of the ACM. All work methods utilized shall be in compliance with OSHA regulations (29 CFR 1926.1101) governing Class I and Class II activities.



2. The Contractor is responsible for providing all ladders, scrapers, materials, and safety equipment and other equipment to be used on this project.
3. All materials that are brought into the work area must be either decontaminated or disposed of as asbestos waste at the conclusion of the project.
4. At the beginning and end of each work period, the enclosures and critical barriers shall be visually inspected and any damage or defects in the barriers shall be corrected. **If at any time the critical barriers or isolation barriers are torn or damaged, the Contractor shall immediately divert any and all work forces to repair the damaged area and no work shall recommence until the necessary repairs are completed.**
5. The ACM shall be sprayed with amended water mist prior to the actual removal process. The wetting agent shall be mixed in proportions consistent with the manufacturer's instructions.
6. Handling of ACM
  - a. All ACM or items that are contaminated with asbestos fibers shall be placed in properly marked water- and air-tight disposal containers. .
  - b. During each day's work the bulk asbestos material shall be cleaned and bagged. No loose asbestos material or asbestos-contaminated debris shall be allowed to remain in the work area overnight.
7. Bags shall be marked in accordance with OSHA and EPA standards as containing asbestos materials. Once asbestos material is bagged the following procedures shall be followed:
  - a. Bags will be twisted and sealed with duct tape. The neck of the bag will then be "goose necked" (turned 180 degrees) and re-taped with duct tape.
  - b. Bags shall then be stored inside the work area or special designated area.
  - c. Place caution labels on bags and/or containers in accordance with OSHA Standard 29 CFR 1926.1101. Clean external surfaces of containers thoroughly by wet sponging in the designated areas that are part of the equipment decontamination enclosure system. Move containers to washroom, wet clean each container thoroughly, and move to holding area pending removal to uncontaminated areas. Ensure that containers are removed from the holding area by workers who have entered from uncontaminated areas dressed in clean coveralls. Ensure that workers do not enter from uncontaminated areas into the washroom or the work area; ensure that contaminated workers do not exit the work area through the equipment decontamination enclosure system.
  - d. All asbestos material moved out of the work area will be immediately placed in a truck or storage container in accordance with local and state regulations

regarding closed conveyance. Storage containers will be designed to prevent exposure from wind, weather, and pedestrian traffic and must be able to be closed and locked.

- e. The number of bags or sections of material taken daily from the work area will be recorded in the contractor's daily log and recorded by the Project Monitor. A copy of all waste manifests will be provided to the Owner.
- M. Worker Decontamination – adequate hot and cold or warm fresh water shall be provided for worker decontamination. Hygiene facilities shall be maintained throughout the project in accordance with OSHA 29 CFR 1926.1101.
- 3.8 Friable ACM (Class I) Removal Using Glove Bag Techniques – Pipe Elbow
- A. **A variance to conduct Class I asbestos removal via glove bag techniques must be approved in writing by the MDE prior to beginning such work.**
  - B. Install the glove bag so that it completely covers the circumference of pipe or other structure where the work is to be done.
  - C. Glove bags shall be used only once, and shall not be moved.
  - D. Glove bags shall be smoke tested for leaks and any leaks shall be sealed prior to removal.
  - E. Glove bags shall not be used on surfaces which exceed 150 degrees Fahrenheit.
  - F. Before beginning the operation, loose and friable materials adjacent to the glove bag operation shall be wrapped in two layers of six-mil thickness polyethylene plastic or otherwise rendered intact.
  - G. At least two persons shall perform glove bag removal operations.
  - H. Wet the asbestos material to be removed with a fine spray of amended water, wetting agent, or surfactant during removal, cutting, or other handling. When being removed, the ACM should be kept as damp as possible via a low-pressure water stream to minimize asbestos fiber dispersion. Wet the ACM through to substrate without causing excess dripping.
  - I. After cleaning twice with a damp cloth, all surfaces from which ACM has been removed shall be treated with an encapsulant to permanently bind any remaining asbestos fibers to prevent them from becoming airborne before removing the glove bag.
  - J. Glove bags shall not be removed from the pipe until visually inspected for asbestos residue by the Owner's Technical Representative. The asbestos contractor shall collapse the glove bag using a HEPA-vacuum and remove the bags from the pipes. Glove bags will be immediately sealed and placed in labeled asbestos waste bags for disposal.
  - K. After removal of the glove bags, clean the remaining ceiling grid using a HEPA-equipped vacuum and the tops of all ceiling tiles within the work area. Wet wipe all remaining ceiling grid.

- L. Maintain the surfaces of the regulated area free of accumulation of asbestos fibers. Give meticulous attention to restricting the spread of dust and debris; keep waste from being distributed over the general area. Use approved industrial HEPA vacuum cleaners to collect dust and small scrap. The blowing down of the space with compressed air is forbidden. Equip personnel engaged in cleanup of asbestos scrap and waste with necessary respiratory equipment and protective clothing.
- M. Using an airless sprayer, apply a coating of encapsulant throughout the area above the suspended ceiling tiles.

### 3.9 Exterior Asbestos Removal

#### A. Asbestos Caulk Removal

1. The Contractor shall seal all vents and penetrations in the area of caulk removal areas with six-mil poly sheeting.
2. The Contractor shall place six-poly sheeting on the ground beneath all caulk removal operations to a minimum distance of six feet from the exterior wall.
3. The material shall be wetted with amended water prior to and during its removal. The Contractor shall remove caulk in an intact state to the extent possible.
4. All removed ACM shall be immediately bagged or kept wetted until transferred to a closed receptacle for disposal, no later than the end of the work shift.

### 3.10 Post-Removal Work Inspections

Once the Contractor has removed all visible ACM and is ready for final cleanup, the Project Monitor shall perform a post-removal visual inspection in each work area. This inspection shall determine whether all materials have been removed and substrates are cleaned prior to proceeding with the next activity. The Contractor shall remedy any deficiency prior to beginning the final clean operations.

After a successful visual inspection, the Contractor shall spray all dried, exposed surfaces with an encapsulant. The Contractor shall provide Safety Data Sheets (SDS) for the encapsulant. The surfaces to be coated shall include surfaces from which the ACM have been removed.

### 3.11 Decontamination Procedures

Once the ACM or items attached to the ACM have been disturbed, all personnel shall enter and exit through the decontamination area only (except for emergency situations). The following general procedures shall be adhered to when personnel are entering or exiting the work area:

- A. All workers shall change work clothes at the designated change areas prior to the start of the day's work. The Contractor shall provide lockers or other adequate storage for workers' street clothes and personal belongings.
- B. All workers and authorized visitors shall, each time they leave the work area: remove gross contamination from clothing via HEPA-vacuum or wet-wiping before leaving the work area;

proceed to the equipment room and remove all clothing except respirators; proceed to the showers still wearing respirator; clean the outside of the respirator with soap and water while showering; remove the respirator; thoroughly wash themselves. Following shower and drying off, each worker and authorized visitor shall proceed directly to the clean room and dress in clean clothes or their street clothes.

- C. All disposable clothing, towels, and other asbestos-contaminated materials shall be disposed of as asbestos waste.
- D. Water (heated), showers, towels, soap, and hygiene supplies shall be the responsibility of the Contractor.
- E. Only equipment necessary for the asbestos abatement operation shall be allowed in the work area and should therefore not be allowed to be taken into the decontamination unit.

### 3.12 Wastewater Disposal

All wastewater produced from the decontamination process or excess from the work area shall be passed through a five-micron or smaller port sized filter specifically designed for removal of asbestos containing particles from water prior to final disposal. Water disposal to sanitary sewer may need municipal approval and is the responsibility of the Contractor.

### 3.13 Toilet Facilities

Owner may designate toilet facilities for use by the Contractor. If the Owner does not supply toilet facilities, the Contractor will supply a sufficient number of toilet facilities. Any employee leaving the work area shall follow all decontamination procedures necessary to as described herein. It is the Contractor's responsibility to maintain the toilet facilities in a clean and orderly condition.

### 3.14 Eating, Drinking, Smoking

No smoking, eating, or drinking shall take place inside the work area. No smoking will be permitted within the building and must be done at/in personal vehicles. Prior to eating, drinking, or smoking, the workers shall fully decontaminate as described herein. Upon returning to the work area, the worker shall don new protective clothing.

### 3.15 Air Monitoring

Ambient and final clearance air sampling shall be conducted by a third-party Project Monitor in accordance with Maryland, OSHA, and AHERA regulations. **It is the responsibility of the Contractor to hire the independent, third-party Project Monitor. The Building Owner will not be responsible for third-party testing or project monitoring.**

- A. Throughout removal, disposal, and clean-up, ambient air monitoring will be conducted to measure the asbestos fiber levels within work areas and adjacent areas. This includes ambient air monitoring at the perimeter of exterior work areas during exterior ACM siding removal.
- B. Worker personal air samples shall be the responsibility of the Contractor. Monitoring may be duplicated at the discretion of the Owner's Representative. If the duplicate air sampling

results differ from those results obtained by the asbestos contractor, the Owner's Representative will determine which results predominate.

- C. At no time shall airborne concentrations of asbestos or fibers meet or exceed an 8-hour time weighted average of 0.01 f/cc of air outside of the work area, analyzed via PCM. If sampling outside the containment shows airborne levels meet or exceed 0.01 f/cc, stop all work, correct the condition (s) causing the increase, and notify the Owner immediately. If an asbestos fiber release occurs outside of the asbestos control area, stop work immediately and divert all available work forces to correct the condition to the satisfaction of the Owner, including clearance sampling, prior to resumption of work.

D. Final Clearance Criteria

1. Final Clearance in Class I work areas shall be determined via aggressive sampling in accordance with AHERA regulations. TEM samples shall be collected using a sampling cassette equipped with a mixed cellulose ester filter with a 0.45-micron pore size with diffuser and analyzed via TEM analysis.
2. Final Clearance in Class II work areas shall be determined via PCM sampling in accordance with COMAR regulations. PCM samples shall be collected using a sampling cassette equipped with a mixed cellulose ester filter with a 0.8-micron pore size with diffuser and analyzed via PCM analysis by the Project Monitor.
3. Final Clearance for exterior removal operations shall consist of a thorough visual inspection by the Project Monitor to verify that all ACM has been removed from the exterior work areas.

2. Final Clearance Air Sampling Protocol:

- a. Final clearance shall not be conducted until lockdown encapsulant has been applied to surfaces from which the asbestos-containing materials have been removed and allowed to dry and the work area has passed a thorough visual inspection. Final clearance sampling shall be conducted using aggressive sampling methods as prescribed in AHERA regulations.
- b. The minimum number of TEM clearance samples for each Class I work area shall include five samples taken inside the work area, five samples taken outside the work area in locations representative of the air entering the work area, two field blanks (one inside the work area and one outside the work area), and one sealed blank. The volume of air drawn for each of the inside and outside air samples shall be equal to or greater than 1,199 liters for a 25-mm filter using a flow rate equal to or greater than one liter per minute and less than ten liters per minute.
- c. The minimum number of PCM clearance samples for each Class II work area shall include one sample per room or one sample per every 5,000 sf of work area, whichever results in more sample locations. The volume of air drawn for each of the inside and outside air samples shall be equal to or greater than 1,199 liters for a 25-mm filter using a flow rate equal to or greater than one liter per minute and less than ten liters per minute.

3. Decontamination of the work area is complete and final clearance is achieved if the following set of conditions is met:
  - a. Contained work areas pass visual inspection conducted by the Project Monitor for asbestos residue; and
  - b. The average of the inside clearance samples measure less than or equal to 70 structures per square millimeter for TEM clearance areas or each of the air samples in the work area measures less than 0.01 f/cc for PCM clearance areas.

**If subsequent clearance retesting is required for any work area, then all labor and material costs required to re-clean and retest the work areas shall be at the Contractor's expense with no additional charges to the Owner.**

### 3.16 Site Inspection

While performing removal work, the Contractor may be subject to on-site inspection by the Owner's Authorized Representative who may be assisted by health and safety personnel. If the work is found to be in violation of this specification, the Authorized Representative will issue a cease and desist order to be in effect immediately and until the violation is resolved. **Standby time required to resolve the violation shall be at the Contractor's expense.**

### 3.17 Housekeeping and Cleanup

- A. Housekeeping and cleanup procedures are essential parts of asbestos dust control. Give meticulous attention to restricting the spread of dust and debris, keep waste from being distributed over the general area or to lower floors. Use approved industrial vacuum cleaners with a HEPA filter to collect dust and small scrap. **The blowing down of the space with compressed air is forbidden.** In all possible instances, workers should clean up their own area. Equip personnel engaged in asbestos scrap and waste cleanup with respiratory equipment and protective clothing as specified herein.

Clean all surfaces in the work area and any other contaminated areas with water and/or with HEPA vacuum equipment. Perform a complete visual inspection of the work area to ensure that the work area is free of visible asbestos debris.

- B. Sealed drums, bags, or other containers and all equipment used in the work area shall be included in the cleanup and shall be removed from work areas. Sealed and labeled containers of contaminated waste should be periodically removed from the work area as work progresses to prevent exceeding available storage capacity inside the work area.
- C. If, within 24 hours, the Project Monitor finds visible accumulations of asbestos debris in the work area, the Contractor shall repeat the wet cleaning until the work area is in compliance, at the Contractor's expense.
- D. Final visual inspections are required to determine if areas are free of visible asbestos debris. Final clearance air samples for asbestos will be taken in accordance with AHERA regulations and as specified in Section 4.13.

### 3.18 Disposal of Asbestos

Collect asbestos waste, scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing that may produce airborne concentrations of asbestos fibers and place in sealed double six-mil thick plastic bags in work area. Rinse bags with water for transfer to the disposal site. Affix each bag with an asbestos caution label as per OSHA Standard 29 CFR 1926.1101. Procedures for hauling and disposal shall comply with applicable federal regulations and state government standards. Disposal of asbestos material will be at an EPA- or state-approved sanitary landfill. An area for interim storage of sealed, secured asbestos waste-containing bags will be secured by the Contractor within the containment area. Workers handling ACM disposal bags shall wear appropriate respirators and personal protective equipment when handling ACM at the disposal site. An EPA waste shipment record shall be provided to document proper disposal of the waste.

For removal of material that is not considered regulated ACM, the Contractor will provide the Owner's Technical Representative with a signed certificate listing the quantity of materials delivered to the disposal site, a description of the location of the site, and a statement attesting to the fact that the site accepts friable ACM and Category I and II non-friable ACM. The signatures of the Contractor, transporter, and site operator must appear on the certificate.

## 4.0 GENERAL SAFETY REQUIREMENTS

### 4.1 General

The Contractor shall comply at a minimum with OSHA and State of Maryland regulations. The Contractor alone shall be responsible for the safety, efficiency, and adequacy of his equipment, appliances, and methods and for any damage or contamination, which may result from their failure or improper use, maintenance operation.

- A. The Contractor shall designate a member of his organization at the work site whose duty shall be the prevention of accidents. In the absence of notice to the contrary filed in writing to the Owner, or in the designated person's absence, this person shall be the Project Superintendent.
- B. The Contractor shall assume all responsibility for any toxic effects to workers from air supplied respirators, effects of airborne encapsulant particles, mists, vapors, or any wetting agents utilized and the disposal of said wetting agent(s) and any residual toxic damaging residues to personnel or property.

### 4.2 Work Crews

The Contractor shall be responsible for setting the size of his work crews; however, during removal operations a minimum of two (2) workers shall be in the work area at one time. Workers should not be allowed to work alone within the work area.

### 4.3 Electrical

During the removal operations the Contractor may be placing his workers in a potentially hazardous electrical environment. Care and special consideration should be exercised by the Contractor to avoid electrical shock to his employees. The requirements as set forth in the National Electrical Code, latest edition, shall be adhered to at all times.

#### 4.4 Work Environment

During work activities the work area environment may become very hot and humid. The Contractor shall take precautions to protect workers from the hostile environment as well as the asbestos fibers. First aid items such as water and cold packs should be kept adjacent to the work area exits, this allowing any personnel requiring emergency egress from the work area with minimum contamination to the clean environment. No worker shall be allowed to reach through the plastic or air lock door to get water or first aid supplied without proper decontamination. If evacuation of the work area is required by contaminated personnel due to an emergency, all work efforts shall stop, and all forces shall be directed at minimizing the area contamination, cleanup operations and first aid procedures. The Owner shall be notified within one hour of the emergency.

#### **ATTACHMENTS**

**ECS – HAZARDOUS MATERIALS SURVEY**

**TRIAD – LIMITED-SCOPE ASBESTOS-CONTAINING MATERIALS SURVEY REPORT**



**ATTACHMENT 1**

**ECS HAZARDOUS MATERIALS REPORT**



**HAZARDOUS MATERIALS SURVEY  
ADMINISTRATION BUILDING ANNEX II  
120-128 WEST WASHINGTON STREET  
HAGERSTOWN, MARYLAND 21740**

**ECS PROJECT NO. 13-3521**

**FOR**

**BMK ARCHITECTS**

**NOVEMBER 25, 2008**



**ECS MID-ATLANTIC, LLC**

**Geotechnical • Construction Materials • Environmental • Facilities**

November 25, 2008

Mr. Dan McDougal  
BMK Architects  
6 East Street  
Frederick, Maryland 21701

ECS Project No. 13-3521

Reference: Hazardous Materials Survey, Administration Building Annex II, 120-128 West  
Washington Street, Hagerstown, Maryland 21740

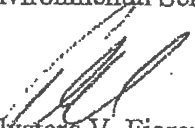
Dear Mr. McDougal:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide you with the results of our Hazardous Materials Survey for the referenced property in accordance with ECS Proposal No. 13-4120-EP, dated September 2, 2008, acceptance on October 21, 2008. If there are questions regarding this report, or a need for further information, please do not hesitate to contact us.

Respectfully submitted,

**ECS Mid-Atlantic, LLC**

  
Alyssa S. Mrvos  
Environmental Scientist

  
Salvatore V. Fiorentino, P.E.  
Principal Engineer

*I:\ENVIRONMENTAL\REPORTS-PROJECTS\3000's\13-3500's\13-3521 Administration Building Annex II Hazardous Materials Survey Report.doc*

REPORT

---

PROJECT

Hazardous Materials Survey  
Administration Building Annex II  
120-128 West Washington Street  
Hagerstown, Maryland 21740

---

CLIENT

BMK Architects  
6 East Street  
Frederick, Maryland 21701

---

SUBMITTED BY

ECS Mid-Atlantic, LLC  
5112 Pegasus Court  
Suite S  
Frederick, Maryland 21704

---

---

PROJECT

13-3521

---

DATE

November 25, 2008

---

**HAZARDOUS MATERIALS SURVEY**  
**ADMINISTRATION BUILDING ANNEX II**  
**120-128 WEST WASHINGTON STREET**  
**HAGERSTOWN, MARYLAND 21740**

**ECS PROJECT NO. 13-3521**

**TABLE OF CONTENTS**

<b><u>SECTION</u></b>	<b><u>PAGE</u></b>
<b><u>1.0 INTRODUCTION</u></b>	<b>1</b>
1.1 Purpose and Scope of Services	1
1.2 Site Location and Description	2
<b><u>2.0 ASBESTOS-CONTAINING MATERIALS SURVEY</u></b>	<b>3</b>
2.1 Sampling Locations and Methods	3
2.2 Analytical Test Results	3
<b><u>3.0 LEAD-BASED PAINT (LBP) SURVEY</u></b>	<b>6</b>
3.1 Methodology	6
3.2 Survey Results	6
<b><u>4.0 RADON SURVEY</u></b>	<b>8</b>
4.1 Methodology	8
4.2 Survey Results	8
<b><u>5.0 ADDITIONAL SURVEY</u></b>	<b>9</b>
5.1 Indoor Air Quality	9
<b><u>6.0 CONCLUSIONS AND RECOMMENDATIONS</u></b>	<b>10</b>
6.1 ACM Survey	10
6.2 Lead Based Paint Survey	10
6.3 Radon Survey	11

**APPENDIX**

I	Drawing
II	Asbestos Laboratory Analytical Test Results and Chain-of-Custody
III	Lead-Based Paint XRF Results
IV	Radon Results

## 1.0 INTRODUCTION

### 1.1 Purpose and Scope of Services

ECS Mid-Atlantic, LLC (ECS) was contracted by BMK Architects, to conduct a Hazardous Materials Survey of the building located at 120-128 West Washington Street, in Hagerstown, Maryland.

The work was performed in accordance with the scope and limitations of our contract agreement (ECS Proposal No. 13-4120-EP, dated September 2, 2008, acceptance October 21, 2008). The purpose of the survey was to evaluate the on-site structure for renovation/demolition purposes for the possible presence of asbestos-containing materials (ACMs), sample predominant painted surfaces for the presence of Lead-Based Paint (LBP), and conduct a radon survey as outlined in Section 5.0. The asbestos survey was conducted in areas of the building that are going to be renovated. PNC Bank had recently been renovated, as such, ECS did not sample in that tenant space of the building.

The scope of services performed for the ACM survey included the following:

- A visual evaluation of accessible interior and exterior areas of the existing on-site structure for potential sources of suspect ACMs.
- The collection of representative bulk samples of potential ACMs within each unique and homogeneous area (areas similar in appearance, material composition, and date of application) utilizing destructive and non-destructive techniques, wet sampling methods, clean extraction tools, and personal protection equipment.
- Evaluation of the physical condition, location, and approximate quantities of the sampled materials at each of the sampling locations.
- Submittal of collected bulk samples to a subcontracted analytical laboratory, for microscopic analyses utilizing Polarized Light Microscopy (PLM) with dispersion staining using USEPA protocol in general accordance with NIOSH manual of analytical methods (USEPA 40 CFR Part 763, entitled *Methods for Determination of Asbestos in Bulk Samples*).

The scope of services performed for the LBP survey included the following:

- A visual evaluation of accessible interior and exterior areas of the existing on-site structure for potential sources of suspect LBP.
- The use of the XRF instrument in general accordance with the Performance Characteristic Sheet (PCS) methodology for the NITON XL-309 dated April 17, 1998. XRF instrument calibration checks were performed according to the PCS. The PCS is provided as Supplemental Guidance to the U.S. Housing and Urban Development

(HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing and is a joint product of HUD and EPA.

The scope of services performed for the Radon survey included the following:

- ECS will conduct a total of six (6) radon samples from ECS selected sampling points. Two radon canisters will be placed in the basement, two on the first floor, and two on the second floor.
- The canisters will be in place for approximately 48 hours. Upon collection the canisters will be analyzed for the radon level.

The conclusions and recommendations presented within this report are based upon a reasonable level of investigation within normal bounds and standards of professional practice for a site in this particular geographic setting. ECS is not responsible or liable for the discovery and elimination of hazards that may potentially cause damage, accidents, or injuries.

All observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are limited to conditions observed, and or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and recommendations presented within this report. This report is provided for the exclusive use of BMK Architects and the City of Hagerstown. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties without the written consent of ECS, BMK Architects, and the City of Hagerstown. The use of this report by any undesignated third party or parties will be at such party's sole risk and ECS disclaims liability for any such third party use or reliance.

## **1.2 Site Location and Description**

The site is located at 120-128 West Washington Street, Hagerstown, Maryland within the 21740 zip code area. At the time of the site reconnaissance, the subject property was a partially occupied office building. The building had been three connected apartment buildings before it was converted into an office building. The western side has two levels and a basement. The eastern side has three levels and a basement. PNC Bank is located on the 1<sup>st</sup> floor, as well as a lawyer's office, and vacant offices. The second level is completely vacant. The third level has an account's office, lawyer's office, and vacant space.

## **2.0 ASBESTOS-CONTAINING MATERIALS SURVEY (Task 9)**

### **2.1 Sampling Locations and Methods**

A total of one hundred twenty-eight bulk samples of potential ACMs were collected on November 7, November 12, and November 21, 2008 by Ms. Alyssa S. Mrvos, USEPA AHERA Licensed and Certified Asbestos Inspector (#81522). Building materials sampled from the buildings included: wall plaster, mudded joints, mortar, carpet with associated glue, ceiling tiles, covebase, drywall, 12" x 12" floor tile, 9" x 9" floor tile, drywall system, boiler room mastics, roofing materials, linoleum floor sheeting, and fireproofing.

The locations of the collected samples and sample numbers are provided in Table II, entitled Analytical Test Results, included in Appendix I of this report.

Representative samples of materials identified as potential ACMs were collected in accessible locations. Collected bulk samples were stored in properly labeled and hermetically sealed containers. Professional judgment was used in the selection of the number of bulk samples collected for laboratory testing and was generally similar to AHERA and NESHAP specifications for asbestos sampling.

Collected bulk samples were submitted to an analytical laboratory for microscopic analysis (PLM) to determine the presence and type (if any) of asbestos. All bulk asbestos sample analyses were performed by Scientific Analytical Institute, Inc., of Greensboro, North Carolina utilizing EPA Method EPA/600/R-93/116 via Polarized Light Microscopy. Sample collection, analysis, and disposition followed standard chain-of-custody requirements. The chain-of-custody, which includes sampling numbers, sampling locations, and homogeneous area descriptions, in addition to bulk sample analysis results are included in Appendix I.

### **2.2 Analytical Test Results**

An ACM is defined as any material containing more than one percent asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM). A friable ACM is defined as any ACM that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.

The locations of the collected samples and sample numbers are provided in Table II, entitled Analytical Test Results, included in Appendix I of this report. However, below is Table 1, entitled Analytical Positive Test Results, which provides all the sample locations where asbestos containing materials were present within the building.



Table I - Asbestos Analytical Positive Test Results

Sample ID	Sample Description and Location	Estimated Quantity	Condition/Friability	Asbestos Content
ASB-21	Mudded Pipe Elbow – Basement Desk Area	ND	Good/Friable	5% Chrysotile
ASB-22	Mudded Pipe Elbow – Basement Desk Area	ND	Good/Friable	10% Chrysotile
ASB-23	Mudded Pipe Elbow – Basement Desk Area	ND	Good/Friable	10% Chrysotile
ASB-24-A ASB-24-B	9"x9" Floor Tiles w/Glue – Basement Hallway to West Stairwell	~2,500 SF	Good/Non-Friable	Tile:8% Chrysotile Glue: 15% Chrysotile
ASB-25-A ASB-25-B	9"x9" Floor Tiles w/Glue – Basement Storage Room w/Racks	~2,500 SF	Good/Non-Friable	Tile:8% Chrysotile Glue: IS
ASB-26-A ASB-26-B	9"x9" Floor Tiles w/Glue – 1 <sup>st</sup> Floor Bank Vault	~2,500 SF	Good/Non-Friable	Tile:8% Chrysotile Glue: 10% Chrysotile
ASB-30-A ASB-30-B	Black Mat w/Yellow Glue - PNC Bank West Side Entrance	~1,000 SF	Good/Non-Friable	Mat: 3% Chrysotile Glue: ND
ASB-31-A ASB-31-B	Black Mat w/Yellow Glue - PNC Bank West Side Entrance	~1,000 SF	Good/Non-Friable	Mat: 3% Chrysotile Glue: ND
ASB-32-A ASB-32-B	Black Mat w/Yellow Glue - PNC Bank West Side Entrance	~1,000 SF	Good/Non-Friable	Mat: 3% Chrysotile Glue: ND
ASB-43	Black Tar – Basement Boiler Room	~2 SF	Good/Non-Friable	5% Chrysotile
ASB-70-A ASB-70-B	Linoleum Floor Sheeting w/Black Glue – 2 <sup>nd</sup> Level Back Area	~750 SF	Good/Non-Friable	Glue: 5% Chrysotile Linoleum: ND
ASB-71-A ASB-71-B	Linoleum Floor Sheeting w/Black Glue – 2 <sup>nd</sup> Level Back Area	~750 SF	Good/Non-Friable	Glue: 5% Chrysotile Linoleum: ND
ASB-72-A ASB-72-B	Linoleum Floor Sheeting w/Black Glue – 2 <sup>nd</sup> Level Back Area	~750 SF	Good/Non-Friable	Glue: 5% Chrysotile Linoleum: ND
ASB-81	9" x 9" Floortile w/Yellow Glue – 2 <sup>nd</sup> Level File Room	~2,500 SF	Good/Non-Friable	Tile: 8% Chrysotile Glue: IS
ASB-94	Fireproofing – 2 <sup>nd</sup> Level West Side Office Area	~1,000 SF	Good/Friable	5% Chrysotile

Sample ID	Sample Description and Location	Estimated Quantity	Condition/Friability	Asbestos Content
ASB-95	Fireproofing – 2 <sup>nd</sup> Level West Side Office Area	~1,000 SF	Good/Friable	5% Chrysotile
ASB-96	Fireproofing – 2 <sup>nd</sup> Level West Side Office Area	~1,000 Sf	Good/Friable	5% Chrysotile
ASB-125	Floor Sheeting w/Glue – 3 <sup>rd</sup> Level Closet	~6 Sf	Good/Non-Friable	15% Chrysotile

Table Notes:

NA: Not Applicable

Sf: Square feet

ND: Not determined (due to possible covering – carpet or other tiles – over asbestos containing material)

IS: Insufficient Sample

An ACM is defined as “any material containing greater than one percent asbestos”. The results of the sampling indicate that chrysotile was detected in the mudded pipe elbow, 9” x 9” floor tile and associated mastic, black mat, black tar, linoleum floor sheeting glue, fireproofing, and floor sheeting.

### 3.0 LEAD-BASED PAINT (LBP) SURVEY (Task 8)

#### 3.1 Methodology

A licensed and certified EPA Lead Risk Assessor trained in sampling protocols and use of the NITON XL-309 X-ray Fluorescence Analyzer (XRF) conducted testing on painted surfaces at the subject site. Use of the XRF instrument was in accordance with the *Performance Characteristic Sheet* (PCS) methodology for the NITON XL-309 dated April 17, 1998. The PCS is provided as Supplemental Guidance to the US Housing and Urban Development (HUD) "*Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*", 1997 Revision and is a joint product of HUD and EPA.

Testing locations were identified by substrate type and component. Surfaces tested included accessible, painted building components such as walls, ceilings, ceramic tiles, doors and casings, and window casements.

XRF instrument calibration checks were performed according to the PCS, indicating that the instrument was operating within the parameters defined in the PCS.

#### 3.2 Survey Results

ECS tested a total of 50 surfaces, excluding calibration checks, with the XRF on November 5, 2008. The State of Maryland defines lead-based paint as paint film containing 0.7 mg/cm<sup>2</sup> or greater by X-Ray Fluorescence Analysis (XRF) or 0.5% or greater lead by weight by laboratory analysis. The Occupational Safety and Health Administration (OSHA) regulates lead present in the workplace in any concentration or, for purposes of this report, "lead-containing paint/coatings". Of the 50 readings, ten (10) indicated a presence of lead in excess of 0.7 mg/cm<sup>2</sup>.

The following building components were identified during the walkthrough observation, which were suspected of being coated with paint containing lead:

- Plaster Walls
- Doors and Casings
- Window Components
- Dry walls
- Baseboards
- Fireplace Mantle
- Stairs
- Cabinets

### **Lead-Based Paint**

The following components were found to contain lead in quantities exceeding the State of Maryland criteria of > 0.7 mg/cm<sup>2</sup>:

- Basement Wall
- Basement Window Right Casing & Sash – Wall D
- Basement Door
- West Stairwell Trim, Stringer, balusters
- 3<sup>rd</sup> Floor Mantle

The above list of lead painted components is a representation of the lead painted components located within the building and should not be considered a complete inventory of all components painted with lead based paints.

Lead-based paint is an environmental concern primarily when it becomes airborne or is ingested. Any contractor performing work that could impact paint films or glazing (i.e. scrapped or flaked off, or made airborne in a dust media) that have detectable concentrations of lead should be informed of the testing results and should take appropriate actions to comply with OSHA Standard 29 CFR 1926.62. – Lead in Construction.

The disposal of construction waste coated with lead-based paint is regulated by EPA Standard 40 CFR 261, Subpart C and requires toxicity characterization leaching procedure (TCLP) testing to determine whether or not the waste is classified as hazardous (requiring specific disposal requirements). Waste containing greater than five parts per million (5ppm) of lead content is classified as hazardous and must be disposed of as such.

#### 4.0 RADON SURVEY (Task 7)

##### 4.1 Methodology

ECS collected a total of six (6) radon samples from random locations. Two radon canisters were placed in the basement, two on the first floor, and two on the second floor. The canisters were placed for approximately 48 hours. Upon collection the canisters were analyzed for their radon level.

Radon is a naturally occurring gaseous substance resulting from the radioactive decay of uranium to radium and then to radon. Uranium is a common element found in many geologic formations and substrates, particularly igneous and metamorphic rocks. Radon has a half-life of only 3.8 days and decays to its daughter elements (polonium 218, polonium 214, bismuth 214 and lead 214). It is these daughter elements which represent the health hazard commonly associated with radon.

##### 4.2 Survey Results

The results of the radon testing are shown in Table 1 below.

Table 1 – Radon Results

Sample ID	Sampling Point	Radon Content (pCi/L)	EPA Radon Levels (pCi/L)
1	Old Basement Apartment	59.3	4
2	Old Vault	1.2	4
3	Law Office	0.0	4
4	Left First Floor Office	0.6	4
5	Left Second Floor Front	0.7	4
6	Right Rear Second Floor	0.0	4

pCi/L = PicoCuries per Liter

Short-term radon testing indicated that recorded radon levels within the old basement apartment area of the subject property building were above recommended EPA levels.

## **5.0 ADDITIONAL SURVEY (Task 5)**

### **5.1 Indoor Air Quality Survey**

ECS was requested to conduct an indoor air quality survey within the subject property building. This portion of the survey will be provided under separate cover.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

### 6.1 ACM Survey

A survey of potential ACMs was performed for the building located at 120-128 West Washington Street, in Hagerstown, Maryland. The survey included observation and sampling of potential ACMs from accessible interior portions of the on-site structure. Suspect ACMs sampled from the building included: wall plaster, mudded joints, mortar, carpet with associated glue, ceiling tiles, covebase, drywall, 12" x 12" floor tile, 9" x 9" floor tile, drywall system, boiler room mastics, roofing materials, linoleum floor sheeting, and fireproofing.

An ACM is defined as "any material containing greater than one percent asbestos". The results of the sampling indicate that chrysotile was detected mudded pipe elbow, 9" x 9" floor tile and associated mastic, black mat, black tar, linoleum floor sheeting glue, fireproofing, and floor sheeting.

Due to the presence of ACM within the subject property building, an Operations and Maintenance Program (O&M) should be prepared to serve as a procedural document to define the conditions by which asbestos and environmental exposures will be controlled during normal operations prior to the initiation of an ultimate abatement program (i.e., removal). All trace amounts of asbestos materials should be considered asbestos containing. As long as ACM is not disturbed or deteriorating, these materials can be kept as is. Should ACM need to be renovated or demolished these materials are required to be removed by a recognized abatement firm.

### 6.2 Lead Based Paint Survey

Based upon the work conducted for this survey and ECS's understanding of the planned renovation, ECS concludes and recommends the following:

Painted surfaces identified as being covered with paint containing lead in any concentration must be handled in accordance with 29 CFR 1926.62, the OSHA Lead Exposure in Construction Standard. Therefore, ECS recommends notifying contractors of all known lead-containing paints prior to bidding on work.

Surfaces covered with deteriorating lead-based paint require stabilization by a licensed lead paint abatement contractor. ECS recommends that these and all lead-based paint coated surfaces be maintained in an intact, good condition.

If materials containing lead are impacted during renovation activities, representative demolition waste stream samples should be collected and submitted for Toxicity Characteristic Leaching Procedure (TCLP) analysis. Should TCLP results reveal lead concentrations of five (5) parts per million or higher, the waste stream should be handled and disposed of as hazardous waste.

This lead screening survey is not intended to be a comprehensive lead paint inspection and does not comply with any standard for determining the "lead-free" status of the building. If areas are expected to undergo renovations or repairs, ECS recommends that a project-specific lead inspection be performed to determine the lead concentration of materials that will be disturbed.

### **6.3 Radon Survey**

Short-term radon testing indicated that recorded radon levels within the old basement apartment area of the subject property building were above recommended EPA levels.

- ECS recommends conducting long-term radon testing to determine if radon in the earth is a problem with the basement of the building.
- If, long-term radon testing is not conducted, ECS recommends a passive venting system which would be expected to reduce overall radon concentrations and exposure.

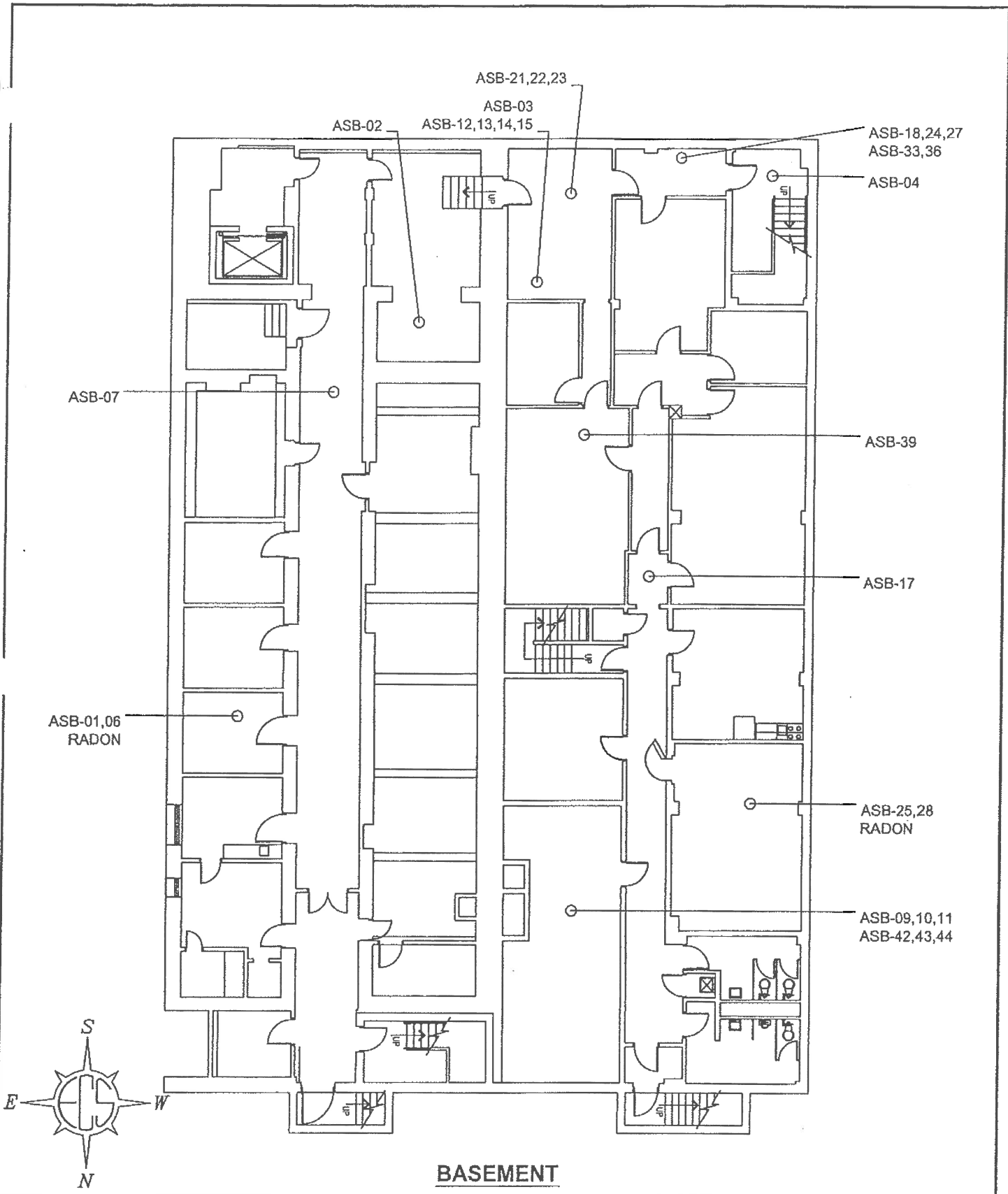
### **6.4 Additional Survey**

The conclusions to this section will be provided under separate cover.



**APPENDIX I**

**DRAWING**



**FIGURE 1: SAMPLE LOCATION DIAGRAM**

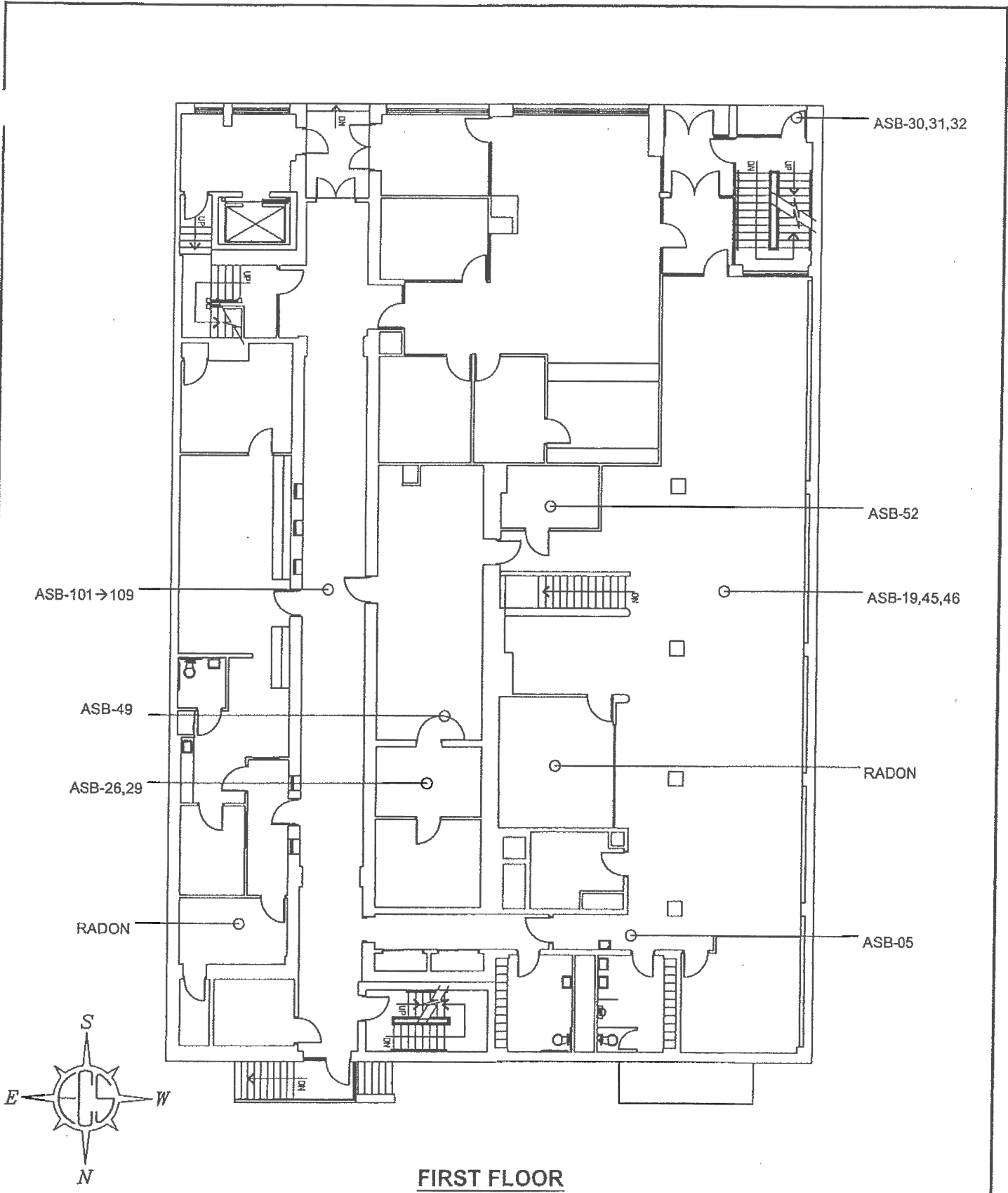
**BMK ARCHITECTS**



**ADMINISTRATION BUILDING ANNEX II**

**WASHINGTON COUNTY**

ENGINEER ASM	SCALE 1/16"=1'-0"
DRAFTSMAN AMH	PROJECT NO. 13-3521
REVISIONS	SHEET 1 OF 4
	DATE 11-25-08



**FIRST FLOOR**

**FIGURE 1: SAMPLE LOCATION DIAGRAM**

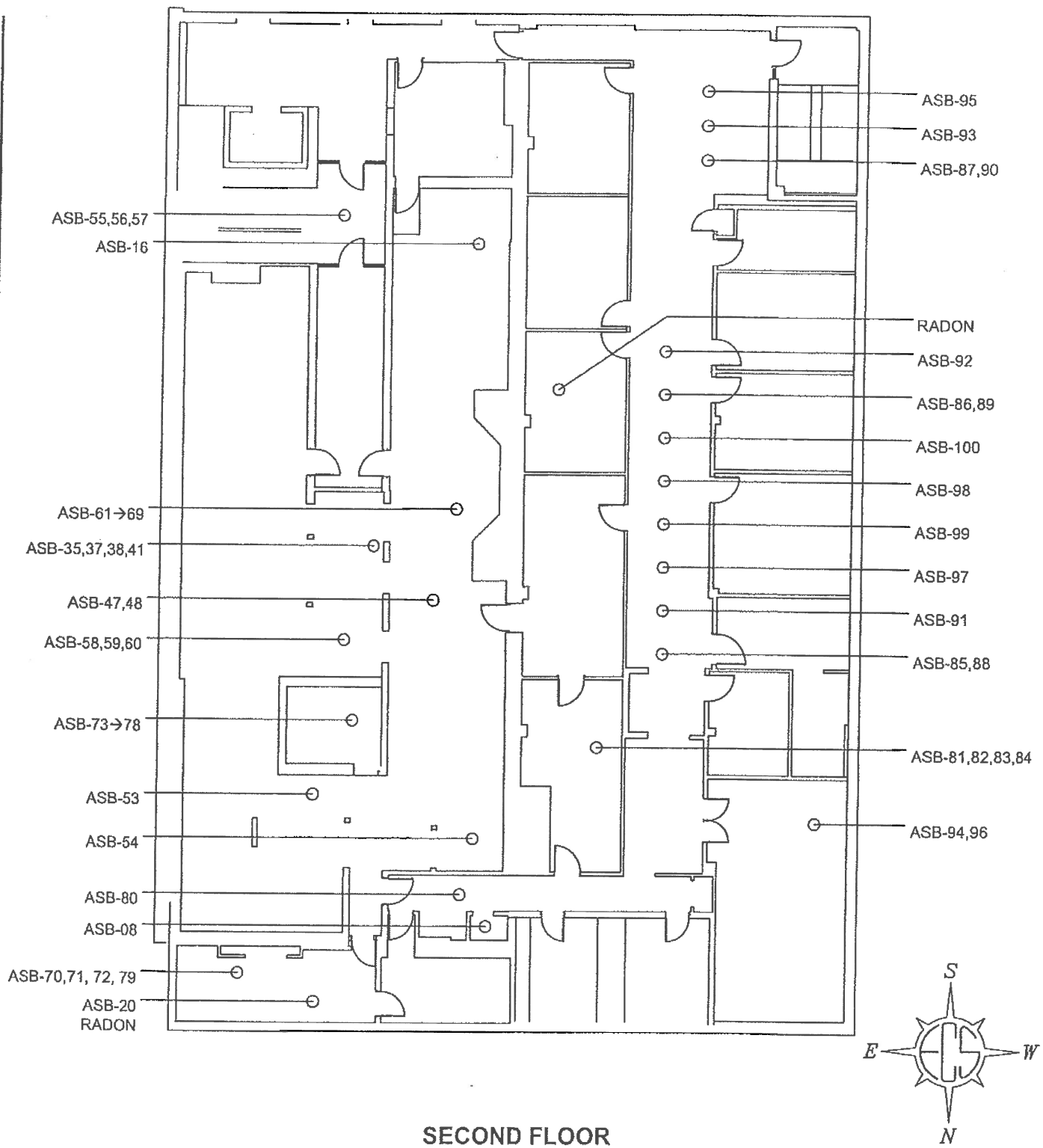
**BMK ARCHITECTS**



**ADMINISTRATION BUILDING ANNEX II**

**WASHINGTON COUNTY**

ENGINEER ASM	SCALE 1/16"=1'-0"
DRAFTSMAN AMH	PROJECT NO. 13-3521
REVISIONS	SHEET 2 OF 4
	DATE 11-25-08



**SECOND FLOOR**

**FIGURE 1: SAMPLE LOCATION DIAGRAM**

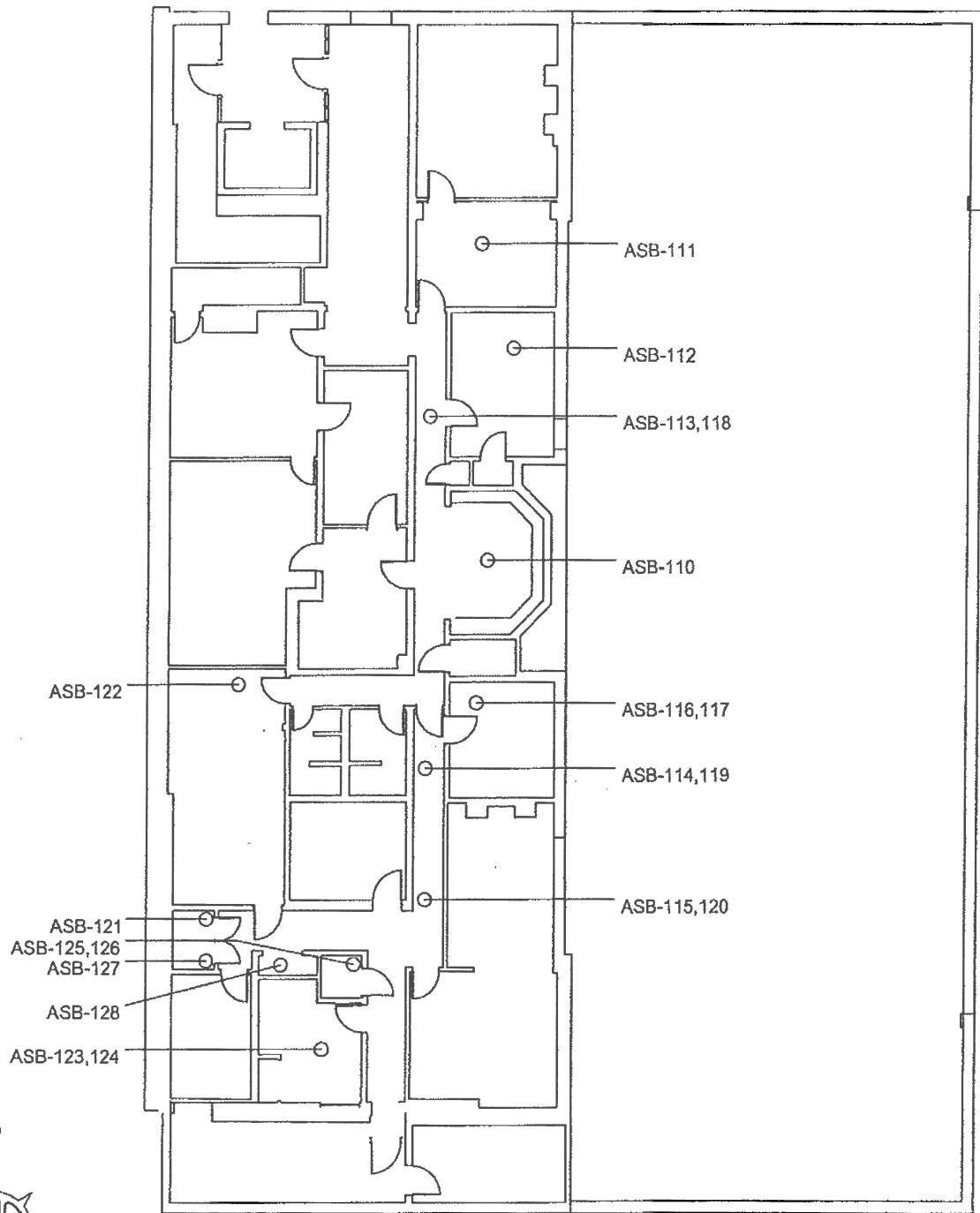
**BMK ARCHITECTS**



**ADMINISTRATION BUILDING ANNEX II**

**WASHINGTON COUNTY**

ENGINEER ASM	SCALE 1/16"=1'-0"
DRAFTSMAN AMH	PROJECT NO. 13-3521
REVISIONS	SHEET 3 OF 4
	DATE 11-25-08



**THIRD FLOOR**

**FIGURE 1: SAMPLE  
LOCATION DIAGRAM**

**BMK ARCHITECTS**



**ADMINISTRATION  
BUILDING ANNEX II**

**WASHINGTON COUNTY**

ENGINEER ASM	SCALE 1/16"=1'-0"
DRAFTSMAN AMH	PROJECT NO. 13-3521
REVISIONS	SHEET 4 OF 4
	DATE 11-25-08

**APPENDIX II**

**ASBESTOS ANALYTICAL TEST RESULTS AND CHAIN-OF-CUSTODY**



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**  
NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Project: Administration Building Annex II

Date Reported: 11/18/2008


Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-01 - A	Wall Plaster	None Detected		100% Other	White Non Fibrous Heterogeneous
809675PLM_1	finish		Crushed		
ASB-01 - B	Wall Plaster	None Detected	3% Hair	77% Other 20% Quartz	Gray Non Fibrous Heterogeneous
809675PLM_126	base		Crushed		
ASB-02 - A	Wall Plaster	None Detected		100% Other	White Non Fibrous Heterogeneous
809675PLM_2	finish		Crushed		
ASB-02 - B	Wall Plaster	None Detected	5% Hair	75% Other 20% Quartz	Gray Fibrous Heterogeneous
809675PLM_127	base		Crushed		
ASB-03	Wall Plaster	None Detected		100% Other	White Non Fibrous Heterogeneous
809675PLM_3	single layer plaster		Crushed		
ASB-04	Wall Plaster	None Detected		100% Other	White Non Fibrous Heterogeneous
809675PLM_4	single layer plaster		Crushed		
ASB-05	Wall Plaster	None Detected		100% Other	White Non Fibrous Heterogeneous
809675PLM_5	single layer plaster		Crushed		
ASB-06	Mudded Joint	None Detected	5% Hair	75% Other 20% Quartz	Gray Fibrous Heterogeneous
809675PLM_6			Crushed		

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

  
Nathaniel Durham, MS or Approved Signatory

Page 1 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**  
NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				
ASB-07	Mudded Joint	None Detected	5% Hair	75% Quartz 20% Other	Gray Fibrous Heterogeneous Crushed
809675PLM_7					
ASB-08	Mudded Joint	None Detected		100% Other	White Non Fibrous Heterogeneous Crushed
809675PLM_8					
ASB-09 - A	Mortar between Concrete	None Detected		100% Other	White Non Fibrous Heterogeneous Crushed
809675PLM_9	white layer				
ASB-09 - B	Mortar between Concrete	None Detected		80% Quartz 20% Other	Brown Non Fibrous Heterogeneous Crushed
809675PLM_128	brown layer				
ASB-10	Mortar between Concrete	None Detected	3% Cellulose	77% Quartz 20% Other	Brown Non Fibrous Heterogeneous Crushed
809675PLM_10	brown layer only				
ASB-11	Mortar between Concrete	None Detected		100% Other	White Non Fibrous Heterogeneous Crushed
809675PLM_11	white layer only				
ASB-12 - A	Carpet & Glue	None Detected	95% Synthetic Fibers	5% Other	Brown Fibrous Heterogeneous Teased
809675PLM_12	carpet				
ASB-12 - B	Carpet & Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous Dissolved
809675PLM_129	mastic				

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 2 of 24





# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**  
NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Project: Administration Building Annex II

Date Reported: 11/18/2008

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				
ASB-13 - A	Carpet & Glue	None Detected	95% Synthetic Fibers	5% Other	Brown Fibrous Heterogeneous
809675PLM_13	carpet				
ASB-13 - B	Carpet & Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_130	mastic				
ASB-14 - A	Carpet & Glue	None Detected	95% Synthetic Fibers	5% Other	Brown Fibrous Heterogeneous
809675PLM_14	carpet				
ASB-14 - B	Carpet & Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_131	mastic				
ASB-15	1'x1' Ceiling Tile	None Detected	80% Fiber Glass 10% Cellulose	10% Other	White Fibrous Heterogeneous
809675PLM_15					
ASB-16	1'x1' Ceiling Tile	None Detected	80% Fiber Glass 10% Cellulose	10% Other	White Fibrous Heterogeneous
809675PLM_16					
ASB-17	1'x1' Ceiling Tile	None Detected	80% Fiber Glass 10% Cellulose	10% Other	White Fibrous Heterogeneous
809675PLM_17					
ASB-18	2'x4' Fissure Pinhole Ceiling Tile	None Detected	40% Cellulose 40% Fiber Glass	10% Perlite 10% Other	White Fibrous Heterogeneous
809675PLM_18					

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommended that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 3 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**  
NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-19	2'x4' Fissure Pinhole Ceiling Tile	None Detected	40% Cellulose 40% Fiber Glass	10% Perlite 10% Other	White Fibrous Heterogeneous
809675PLM_19					Teased
ASB-20	2'x4' Fissure Pinhole Ceiling Tile	None Detected	40% Cellulose 40% Fiber Glass	10% Perlite 10% Other	White Fibrous Heterogeneous
809675PLM_20					Teased
ASB-21	Mudded Pipe Elbow	5% Chrysotile	30% Fiber Glass	65% Other	Gray Fibrous Heterogeneous
809675PLM_21					Teased
ASB-22	Mudded Pipe Elbow	10% Chrysotile	30% Fiber Glass	60% Other	Gray Fibrous Heterogeneous
809675PLM_22					Teased
ASB-23	Mudded Pipe Elbow	10% Chrysotile	30% Fiber Glass	60% Other	Gray Fibrous Heterogeneous
809675PLM_23					Teased
ASB-24 - A	9"x9" Beige Speckled Floortile w/Black Glue	8% Chrysotile		92% Other	Beige Non Fibrous Heterogeneous
809675PLM_24	tile				Dissolved
ASB-24 - B	9"x9" Beige Speckled Floortile w/Black Glue	15% Chrysotile		85% Other	Black Non Fibrous Heterogeneous
809675PLM_132	mastic				Dissolved
ASB-25 - A	9"x9" Beige Speckled Floortile w/Black Glue	8% Chrysotile		92% Other	Beige Non Fibrous Heterogeneous
809675PLM_25	tile				Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Nathaniel Durham, MS or Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-25 - B	9"x9" Beige Speckled Floortile w/Black Glue	Insufficient Sample			
809675PLM_133	mastic				
ASB-26 - A	9"x9" Beige Speckled Floortile w/Black Glue	8% Chrysotile		92% Other	Beige Non Fibrous Heterogeneous
809675PLM_26	tile				Dissolved
ASB-26 - B	9"x9" Beige Speckled Floortile w/Black Glue	10% Chrysotile		90% Other	Black Non Fibrous Heterogeneous
809675PLM_134	mastic				Dissolved
ASB-27 - A	Black 4" Covebase w/Glue	None Detected		100% Other	Black Non Fibrous Heterogeneous
809675PLM_27	covebase				Dissolved
ASB-27 - B	Black 4" Covebase w/Glue	None Detected	3% Cellulose	97% Other	Brown Non Fibrous Heterogeneous
809675PLM_135	mastic		Dissolved		
ASB-28 - A	Black 4" Covebase w/Glue	None Detected		100% Other	Black Non Fibrous Heterogeneous
809675PLM_28	covebase				Dissolved
ASB-28 - B	Black 4" Covebase w/Glue	None Detected	3% Cellulose	97% Other	Brown Non Fibrous Heterogeneous
809675PLM_136	mastic		Dissolved		
ASB-29 - A	Black 4" Covebase w/Glue	None Detected		100% Other	Black Non Fibrous Heterogeneous
809675PLM_29	covebase				Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 5 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP  
NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-29 - B	Black 4" Covebase w/Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_137	mastic				Dissolved
ASB-30 - A	Black Mat w/Yellow Glue	3% Chrysotile		97% Other	Black Non Fibrous Heterogeneous
809675PLM_30	mat				Ashed
ASB-30 - B	Black Mat w/Yellow Glue	None Detected	5% Cellulose	95% Other	Yellow Non Fibrous Heterogeneous
809675PLM_138	glue				Dissolved
ASB-31 - A	Black Mat w/Yellow Glue	3% Chrysotile		97% Other	Black Non Fibrous Heterogeneous
809675PLM_31	mat				Ashed
ASB-31 - B	Black Mat w/Yellow Glue	None Detected	5% Cellulose	95% Other	Yellow Non Fibrous Heterogeneous
809675PLM_139	glue				Ashed
ASB-32 - A	Black Mat w/Yellow Glue	3% Chrysotile		97% Other	Black Non Fibrous Heterogeneous
809675PLM_32	mat				Ashed
ASB-32 - B	Black Mat w/Yellow Glue	None Detected	5% Cellulose	95% Other	Yellow Non Fibrous Heterogeneous
809675PLM_140	glue				Dissolved
ASB-33	Drywall	None Detected	15% Cellulose	85% Other	White, Brown Fibrous Heterogeneous
809675PLM_33					Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 6 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP  
NVLAP Lab Code: 200664-9

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mirvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Project: Administration Building Annex II

Date Reported: 11/18/2008

Sample ID	Description	Asbestos	Fibrous Components		Non-Fibrous Components		Attributes
Lab Sample ID	Lab Notes						Treatment
ASB-34	Drywall	None Detected	15%	Cellulose	85%	Other	White, Brown Fibrous Heterogeneous
809675PLM_34			Teased				
ASB-35	Drywall	None Detected	15%	Cellulose	85%	Other	White, Brown Fibrous Heterogeneous
809675PLM_35			Teased				
ASB-36	2'x2' Fissure Pinhole Ceiling Tile	None Detected	40%	Cellulose	10%	Perlite	White Fibrous Heterogeneous
809675PLM_36			40%	Fiber Glass	10%	Other	Teased
ASB-37	2'x2' Fissure Pinhole Ceiling Tile	None Detected	40%	Cellulose	10%	Perlite	White Fibrous Heterogeneous
809675PLM_37			40%	Fiber Glass	10%	Other	Teased
ASB-38	2'x2' Fissure Pinhole Ceiling Tile	None Detected	40%	Cellulose	10%	Perlite	White Fibrous Heterogeneous
809675PLM_38			40%	Fiber Glass	10%	Other	Teased
ASB-39	Joint Compound	None Detected			100%	Other	White Non Fibrous Heterogeneous
809675PLM_39			Teased				
ASB-40		Not Submitted					
809675PLM_40							
ASB-41	Joint Compound	None Detected			100%	Other	Gray Fibrous Heterogeneous
809675PLM_41			Teased				

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Nathaniel Durham, MS or Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**  
NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-42	Mudded Joint	None Detected	30% Fiber Glass	70% Other	Gray Fibrous Heterogeneous
809675PLM_42					Teased
ASB-43	Black Tar	5% Chrysotile	3% Cellulose	92% Other	Black Non Fibrous Heterogeneous
809675PLM_43					Dissolved
ASB-44	Mudd by Boiler Pipe	None Detected		100% Other	Gray Non Fibrous Heterogeneous
809675PLM_44					Teased
ASB-45	Wall Plaster	None Detected		100% Other	White Non Fibrous Heterogeneous
809675PLM_45					Teased
ASB-46 - A	Pink Carpet w/Yellow Glue	None Detected	95% Synthetic Fibers	5% Other	Pink Fibrous Heterogeneous
809675PLM_46	carpet				Teased
ASB-46 - B	Pink Carpet w/Yellow Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_141	mastic				Dissolved
ASB-47 - A	Pink Carpet w/Yellow Glue	None Detected	95% Synthetic Fibers	5% Other	Pink Fibrous Heterogeneous
809675PLM_47	carpet				Teased
ASB-47 - B	Pink Carpet w/Yellow Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_142	mastic				Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 8 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**  
NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-48 - A	Pink Carpet w/Yellow Glue	None Detected	95% Synthetic Fibers	5% Other	Pink Fibrous Heterogeneous
809675PLM_48	carpet				Teased
ASB-48 - B	Pink Carpet w/Yellow Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_143	mastic				Dissolved
ASB-49 - A	12"x12" Beige Speckled Floortile w/Glue	None Detected		100% Other	Beige Non Fibrous Heterogeneous
809675PLM_49	tile				Dissolved
ASB-49 - B	12"x12" Beige Speckled Floortile w/Glue	None Detected	5% Synthetic Fibers 3% Cellulose	92% Other	Yellow Non Fibrous Heterogeneous
809675PLM_144	mastic				Dissolved
ASB-50		Not Submitted			
809675PLM_50					
ASB-51		Not Submitted			
809675PLM_51					
ASB-52	6" Tan Covebase Glue	None Detected	3% Cellulose	97% Other	Tan Non Fibrous Heterogeneous
809675PLM_52					Crushed
ASB-53	6" Tan Covebase Glue	None Detected	3% Cellulose	97% Other	Tan Non Fibrous Heterogeneous
809675PLM_53					Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 9 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**  
NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II


Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-54	6" Tan Covebase Glue	None Detected	3% Cellulose	97% Other	Tan Non Fibrous Heterogeneous
809675PLM_54					Dissolved
ASB-55 - A	Carpet & Glue	None Detected	95% Synthetic Fibers	5% Other	Green, Brown Fibrous Heterogeneous
809675PLM_55	carpet				Teased
ASB-55 - B	Carpet & Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_145	glue				Dissolved
ASB-56 - A	Carpet & Glue	None Detected	95% Synthetic Fibers	5% Other	Green, Brown Fibrous Heterogeneous
809675PLM_36	carpet				Teased
ASB-56 - B	Carpet & Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_146	glue				Dissolved
ASB-57 - A	Carpet & Glue	None Detected	95% Synthetic Fibers	5% Other	Green, Brown Fibrous Heterogeneous
809675PLM_57	carpet				Teased
ASB-57 - B	Carpet & Glue	None Detected	5% Cellulose	95% Other	Yellow Non Fibrous Heterogeneous
809675PLM_147	glue				Dissolved
ASB-58	2'x2' Ceiling Tile	None Detected	90% Fiber Glass 5% Cellulose	5% Other	White Fibrous Heterogeneous
809675PLM_58					Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

  
Nathaniel Durham, MS or Approved Signatory

Page 10 of 24





# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components		Non-Fibrous Components		Attributes
Lab Sample ID	Lab Notes						Treatment
ASB-59	2'x2' Ceiling Tile	None Detected	90%	Fiber Glass	5%	Other	White Fibrous Heterogeneous
809675PLM_59			5%	Cellulose			Teased
ASB-60	2'x2' Ceiling Tile	None Detected	90%	Fiber Glass	5%	Other	White Fibrous Heterogeneous
809675PLM_60			5%	Cellulose			Teased
ASB-61	Roofing Material	None Detected			100%	Other	Gray Non Fibrous Heterogeneous
809675PLM_61							Crushed
ASB-62	Roofing Material	None Detected			100%	Other	Gray Non Fibrous Heterogeneous
809675PLM_62							Crushed
ASB-63	Roofing Material	None Detected			100%	Other	Gray Non Fibrous Heterogeneous
809675PLM_63							Crushed
ASB-64	Roofing Tar Material	None Detected	40%	Cellulose	60%	Other	Black Fibrous Heterogeneous
809675PLM_64							Dissolved, Teased
ASB-65	Roofing Tar Material	None Detected	40%	Cellulose	60%	Other	Black Fibrous Heterogeneous
809675PLM_65							Dissolved, Teased
ASB-66	Roofing Tar Material	None Detected	40%	Cellulose	60%	Other	Black Fibrous Heterogeneous
809675PLM_66							Dissolved, Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

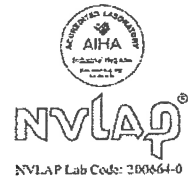
Nathaniel Durham, MS or Approved Signatory

Page 11 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**Customer:** ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

**Attn:** Alyssa Mrvos

**Lab Order ID:** 809675

**Analysis ID:** 809675PLM

**Date Received:** 11/13/2008

**Date Reported:** 11/18/2008

**Project:** Administration Building Annex II


Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-67	Roof Shingle	None Detected	30% Cellulose	70% Other	Black, Gray Fibrous Heterogeneous
809675PLM_67					Dissolved, Teased
ASB-68	Roof Shingle	None Detected	30% Cellulose	70% Other	Black, Gray Fibrous Heterogeneous
809675PLM_68					Dissolved, Teased
ASB-69	Roof Shingle	None Detected	30% Cellulose	70% Other	Black, Gray Fibrous Heterogeneous
809675PLM_69					Dissolved, Teased
ASB-70 - A	Linoleum Floor Sheeting w/Black Glue	None Detected	15% Cellulose 5% Fiber Glass	80% Other	Beige Fibrous Heterogeneous
809675PLM_70	linoleum				Teased
ASB-70 - B	Linoleum Floor Sheeting w/Black Glue	5% Chrysotile	5% Cellulose	90% Other	Black Non Fibrous Heterogeneous
809675PLM_148	glue				Dissolved
ASB-71 - A	Linoleum Floor Sheeting w/Black Glue	None Detected	15% Cellulose 5% Fiber Glass	80% Other	Beige Fibrous Heterogeneous
809675PLM_71	linoleum				Teased
ASB-71 - B	Linoleum Floor Sheeting w/Black Glue	5% Chrysotile	5% Cellulose	90% Other	Black Non Fibrous Heterogeneous
809675PLM_149	glue				Dissolved
ASB-72 - A	Linoleum Floor Sheeting w/Black Glue	None Detected	15% Cellulose 5% Fiber Glass	80% Other	Beige Fibrous Heterogeneous
809675PLM_72	linoleum				Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of S&A. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

  
Nathaniel Durham, MS or Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**  
NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-72 - B	Linoleum Floor Sheeting w/Black Glue	5% Chrysotile	5% Cellulose	90% Other	Black Non Fibrous Heterogeneous
809675PLM_150	glue				Dissolved
ASB-73 - A	Gray Carpet w/Glue	None Detected	95% Synthetic Fibers	5% Other	Gray Fibrous Heterogeneous
809675PLM_73	carpet				Teased
ASB-73 - B	Gray Carpet w/Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_151	glue				Dissolved
ASB-74 - A	Gray Carpet w/Glue	None Detected	95% Synthetic Fibers	5% Other	Gray Fibrous Heterogeneous
809675PLM_74	carpet				Teased
ASB-74 - B	Gray Carpet w/Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_152	glue				Dissolved
ASB-75 - A	Gray Carpet w/Glue	None Detected	95% Synthetic Fibers	5% Other	Gray Fibrous Heterogeneous
809675PLM_75	carpet				Teased
ASB-75 - B	Gray Carpet w/Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_153	glue				Dissolved
ASB-76 - A	Gray Covebase w/Glue	None Detected		100% Other	Gray Non Fibrous Heterogeneous
809675PLM_76	covebase				Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 13 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**  
NVLAP Lab Code: 201664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components		Attributes
Lab Sample ID	Lab Notes					Treatment
ASB-76 - B	Gray Covebase w/Glue	None Detected	5% Wollastonite	95%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_154	glue					Dissolved
ASB-77 - A	Gray Covebase w/Glue	None Detected		100%	Other	Gray Non Fibrous Heterogeneous
809675PLM_77	covebase					Dissolved
ASB-77 - B	Gray Covebase w/Glue	None Detected	5% Wollastonite	95%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_155	glue					Dissolved
ASB-78 - A	Gray Covebase w/Glue	None Detected		100%	Other	Gray Non Fibrous Heterogeneous
809675PLM_78	covebase					Dissolved
ASB-78 - B	Gray Covebase w/Glue	None Detected	5% Wollastonite	95%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_156	glue					Dissolved
ASB-79	2'x4' Ceiling Tile	None Detected	40% Cellulose 40% Fiber Glass	10%	Perlite Other	White Fibrous Heterogeneous
809675PLM_79						Teased
ASB-80 - A	Wall Plaster	None Detected		100%	Other	White Non Fibrous Heterogeneous
809675PLM_80	finish					Crushed
ASB-80 - B	Wall Plaster	None Detected		80%	Other Perlite	Gray Non Fibrous Heterogeneous
809675PLM_157	base					Crushed

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 14 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**

NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Project: Administration Building Annex II

Date Reported: 11/18/2008

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-81	9"x9" Beige Speckled Floortile w/Black Glue	8% Chrysotile		92% Other	Beige Non Fibrous Heterogeneous
809675PLM_81	tile only not enough mastic to analyze				Dissolved
ASB-82 - A	Brown 4" Covebase w/Glue	None Detected		100% Other	Brown Non Fibrous Heterogeneous
809675PLM_82	covebase				Dissolved
ASB-82 - B	Brown 4" Covebase w/Glue	None Detected	3% Cellulose	97% Other	Brown Non Fibrous Heterogeneous
809675PLM_158	glue				Dissolved
ASB-83 - A	Brown 4" Covebase w/Glue	None Detected		100% Other	Brown Non Fibrous Heterogeneous
809675PLM_83	covebase				Dissolved
ASB-83 - B	Brown 4" Covebase w/Glue	None Detected	3% Cellulose	97% Other	Brown Non Fibrous Heterogeneous
809675PLM_159	glue				Dissolved
ASB-84 - A	Brown 4" Covebase w/Glue	None Detected		100% Other	Brown Non Fibrous Heterogeneous
809675PLM_84	covebase				Dissolved
ASB-84 - B	Brown 4" Covebase w/Glue	None Detected	3% Cellulose	97% Other	Brown Non Fibrous Heterogeneous
809675PLM_160	glue				Dissolved
ASB-85 - A	Blue Carpet w/Glue	None Detected	95% Synthetic Fibers	5% Other	Blue Fibrous Heterogeneous
809675PLM_85	carpet				Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 15 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes	
Lab Sample ID	Lab Notes				Treatment	
ASB-85 - B	Blue Carpet w/Glue	None Detected	5% Cellulose	95% Other	Yellow Non Fibrous Heterogeneous	Dissolved
809675PLM_161	glue					
ASB-86 - A	Blue Carpet w/Glue	None Detected	95% Synthetic Fibers	5% Other	Blue Fibrous Heterogeneous	Teased
809675PLM_86	carpet					
ASB-86 - B	Blue Carpet w/Glue	None Detected	5% Cellulose	95% Other	Yellow Non Fibrous Heterogeneous	Dissolved
809675PLM_162	glue					
ASB-87 - A	Blue Carpet w/Glue	None Detected	95% Cellulose	5% Other	Blue Fibrous Heterogeneous	Teased
809675PLM_87	carpet					
ASB-87 - B	Blue Carpet w/Glue	None Detected	5% Cellulose	95% Other	Yellow Non Fibrous Heterogeneous	Dissolved
809675PLM_163	glue					
ASB-88 - A	4" Beige Covebase w/Glue	None Detected		100% Other	Beige Non Fibrous Heterogeneous	Dissolved
809675PLM_88	covebase					
ASB-88 - B	4" Beige Covebase w/Glue	None Detected	3% Cellulose	97% Other	Brown Non Fibrous Heterogeneous	Dissolved
809675PLM_164	glue					
ASB-89 - A	4" Beige Covebase w/Glue	None Detected		100% Other	Beige Non Fibrous Heterogeneous	Dissolved
809675PLM_89	covebase					

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Nathaniel Durham, MS or Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**<sup>®</sup>

NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II


Sample ID	Description	Asbestos	Fibrous Components		Non-Fibrous Components		Attributes
Lab Sample ID	Lab Notes						Treatment
ASB-89 - B	4" Beige Covebase w/Glue	None Detected	3%	Cellulose	97%	Other	Brown Non Fibrous Heterogeneous
809675PLM_165	glue						Dissolved
ASB-90 - A	4" Beige Covebase w/Glue	None Detected			100%	Other	Beige Non Fibrous Heterogeneous
809675PLM_90	covebase						Dissolved
ASB-90 - B	4" Beige Covebase w/Glue	None Detected	3%	Cellulose	97%	Other	Brown Non Fibrous Heterogeneous
809675PLM_166	glue						Dissolved
ASB-91	2'x2' Ceiling Tile	None Detected	40%	Cellulose	10%	Perlite	White Fibrous Heterogeneous
809675PLM_91			40%	Fiber Glass	10%	Other	Teased
ASB-92	2'x2' Ceiling Tile	None Detected	40%	Cellulose	10%	Perlite	White Fibrous Heterogeneous
809675PLM_92			40%	Fiber Glass	10%	Other	Teased
ASB-93	2'x2' Ceiling Tile	None Detected	40%	Cellulose	10%	Perlite	White Fibrous Heterogeneous
809675PLM_93			40%	Fiber Glass	10%	Other	Teased
ASB-94	Fireproofing	5% Chrysotile			85%	Other Vermiculite	White Fibrous Heterogeneous
809675PLM_94							Teased
ASB-95	Fireproofing	5% Chrysotile			85%	Other Vermiculite	White Fibrous Heterogeneous
809675PLM_95							Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

  
Nathaniel Durham, MS or Approved Signatory

Page 17 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**  
NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mirvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-96	Fireproofing	5% Chrysotile		85% Other 10% Vermiculite	White Fibrous Heterogeneous
809675PLM_96					Teased
ASB-97	Drywall	None Detected	15% Cellulose	85% Other	White, Brown Fibrous Heterogeneous
809675PLM_97					Teased
ASB-98	Joint Compound	None Detected		100% Other	White Non Fibrous Heterogeneous
809675PLM_98					Teased
ASB-99 - A	Gray/Blue Carpeting w/Glue	None Detected	95% Synthetic Fibers	5% Other	Blue, Gray Fibrous Heterogeneous
809675PLM_99	carpet				Teased
ASB-99 - B	Gray/Blue Carpeting w/Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_167	glue				Dissolved
ASB-100	1'x1' Ceiling Tile	None Detected	85% Fiber Glass 10% Cellulose	5% Other	White Fibrous Heterogeneous
809675PLM_100					Teased
ASB-101	Joint Compound	None Detected		100% Other	White Non Fibrous Heterogeneous
809675PLM_101					Teased
ASB-102	Drywall	None Detected	15% Cellulose	85% Other	White, Brown Fibrous Heterogeneous
809675PLM_102					Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 18 of 24





# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

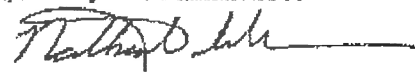
Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-103 - A	Red Carpet w/ Glue	None Detected	95% Synthetic Fibers	5% Other	Red Fibrous Heterogeneous
809675PLM_103	carpet				Teased
ASB-103 - B	Red Carpet w/ Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_168	glue				Dissolved
ASB-104 - A	Red Carpet w/ Glue	None Detected	95% Synthetic Fibers	5% Other	Red Fibrous Heterogeneous
809675PLM_104	carpet				Teased
ASB-104 - B	Red Carpet w/ Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_169	glue				Dissolved
ASB-105 - A	Red Carpet w/ Glue	None Detected	95% Synthetic Fibers	5% Other	Red Fibrous Heterogeneous
809675PLM_105	carpet				Teased
ASB-105 - B	Red Carpet w/ Glue	None Detected	3% Cellulose	97% Other	Yellow Non Fibrous Heterogeneous
809675PLM_170	glue				Dissolved
ASB-106	1'x1' Ceiling Tile	None Detected	85% Fiber Glass 10% Cellulose	5% Other	White Fibrous Heterogeneous
809675PLM_106					Teased
ASB-107 - A	Wallpaper & Glue	None Detected	90% Cellulose	10% Other	Tan Fibrous Heterogeneous
809675PLM_107	wallpaper				Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

  
Nathaniel Durham, MS or Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mirvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components		Non-Fibrous Components		Attributes
Lab Sample ID	Lab Notes						Treatment
ASB-107 - B	Wallpaper & Glue	None Detected	5%	Cellulose	95%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_171	glue		Dissolved				
ASB-108 - A	Wallpaper & Glue	None Detected	90%	Cellulose	10%	Other	Tan Fibrous Heterogeneous
809675PLM_108	wallpaper		Teased				
ASB-108 - B	Wallpaper & Glue	None Detected	5%	Cellulose	95%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_172	glue		Dissolved				
ASB-109 - A	Wallpaper & Glue	None Detected	90%	Cellulose	10%	Other	Tan Fibrous Heterogeneous
809675PLM_109	wallpaper		Teased				
ASB-109 - B	Wallpaper & Glue	None Detected	5%	Cellulose	95%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_173	glue		Dissolved				
ASB-110	2'x2' Ceiling Tile	None Detected	40%	Cellulose	10%	Perlite	White Fibrous Heterogeneous
809675PLM_110			40%	Fiber Glass	10%	Other	Teased
ASB-111	2'x2' Ceiling Tile	None Detected	40%	Cellulose	10%	Perlite	White Fibrous Heterogeneous
809675PLM_111			40%	Fiber Glass	10%	Other	Teased
ASB-112	2'x2' Ceiling Tile	None Detected	40%	Cellulose	10%	Perlite	White Fibrous Heterogeneous
809675PLM_112			40%	Fiber Glass	10%	Other	Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 20 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components		Non-Fibrous Components		Attributes
Lab Sample ID	Lab Notes						Treatment
ASB-113 - A	Wallpaper & Glue	None Detected	90%	Cellulose	10%	Other	White Fibrous Heterogeneous
809675PLM_113	wallpaper						Teased
ASB-113 - B	Wallpaper & Glue	None Detected	3%	Cellulose	97%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_174	glue						Dissolved
ASB-114	Wallpaper & Glue	Not Submitted					
809675PLM_114	no sample in bag						
ASB-115 - A	Wallpaper & Glue	None Detected	90%	Cellulose	10%	Other	White Fibrous Heterogeneous
809675PLM_115	wallpaper						Teased
ASB-115 - B	Wallpaper & Glue	None Detected	3%	Cellulose	97%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_175	glue						Dissolved
ASB-116 - A	Drywall	None Detected			100%	Other	White Non Fibrous Heterogeneous
809675PLM_116	finish		Crushed				
ASB-116 - B	Drywall	None Detected	5%	Hair	75%	Other Quartz	Gray Fibrous Heterogeneous
809675PLM_176	base						Crushed
ASB-117	Joint Compound	None Detected			100%	Other	White Non Fibrous Heterogeneous
809675PLM_117			Teased				

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
ASB-118 - A	Blue Carpet w/Glue	None Detected	95% Synthetic Fibers	5% Other	Blue Fibrous Heterogeneous
809675PLM_118	carpet				Teased
ASB-118 - B	Blue Carpet w/Glue	None Detected	5% Cellulose	95% Other	Yellow Non Fibrous Heterogeneous
809675PLM_177	glue				Dissolved
ASB-118 - C	Blue Carpet w/Glue	None Detected		100% Other	Yellow Non Fibrous Heterogeneous
809675PLM_178	padding				Teased
ASB-119 - A	Blue Carpet w/Glue	None Detected	95% Synthetic Fibers	5% Other	Blue Fibrous Heterogeneous
809675PLM_119	carpet				Teased
ASB-119 - B	Blue Carpet w/Glue	None Detected	5% Cellulose	95% Other	Yellow Non Fibrous Heterogeneous
809675PLM_179	glue				Dissolved
ASB-119 - C	Blue Carpet w/Glue	None Detected		100% Other	Yellow Non Fibrous Heterogeneous
809675PLM_180	padding				Teased
ASB-120 - A	Blue Carpet w/Glue	None Detected	95% Synthetic Fibers	5% Other	Blue Fibrous Heterogeneous
809675PLM_120	carpet				Teased
ASB-120 - B	Blue Carpet w/Glue	None Detected	5% Cellulose	95% Other	Yellow Non Fibrous Heterogeneous
809675PLM_181	glue				Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 22 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos	Fibrous Components		Non-Fibrous Components		Attributes
Lab Sample ID	Lab Notes						Treatment
ASB-120 - C	Blue Carpet w/Glue	None Detected			100%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_182	padding						Teased
ASB-121	HVAC Glue	None Detected			100%	Other	Gray Non Fibrous Heterogeneous
809675PLM_121							Crushed
ASB-122 - A	4" Tan Covebase w/Glue	None Detected			100%	Other	Tan Non Fibrous Heterogeneous
809675PLM_122	covebase						Dissolved
ASB-122 - B	4" Tan Covebase w/Glue	None Detected	3%	Cellulose	97%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_183	glue		Dissolved				
ASB-123 - A	Floor Sheeting w/Glue	None Detected			100%	Other	White Non Fibrous Heterogeneous
809675PLM_123	sheeting						Dissolved
ASB-123 - B	Floor Sheeting w/Glue	None Detected	3%	Cellulose	97%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_184	glue		Dissolved				
ASB-124 - A	Floor Sheeting w/Glue	None Detected			100%	Other	White Non Fibrous Heterogeneous
809675PLM_124	sheeting						Dissolved
ASB-124 - B	Floor Sheeting w/Glue	None Detected	3%	Cellulose	97%	Other	Yellow Non Fibrous Heterogeneous
809675PLM_185	glue		Dissolved				

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 23 of 24



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



NVLAP Lab Code: 200664-0

Customer: ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

Attn: Alyssa Mrvos

Lab Order ID: 809675

Analysis ID: 809675PLM

Date Received: 11/13/2008

Date Reported: 11/18/2008

Project: Administration Building Annex II

Sample ID	Description	Asbestos		Fibrous Components		Non-Fibrous Components		Attributes
Lab Sample ID	Lab Notes							Treatment
ASB-125	Floor Sheeting w/Glue	15%	Chrysotile	5%	Cellulose	80%	Other	Brown Fibrous Heterogeneous
809675PLM_125	unable to separate glue							Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (185)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 24 of 24

809675

**Scientific Analytical  
Institute, Inc.**  
302-L Pomona Dr  
Greensboro, NC 27407  
Phone: 336.292.3685  
Fax: 336.292.3313  
Email: lab@sallab.com

W. Jumper 11-13-08  
9:30 AM

**Instructions:**  
Based on the 2007 9.10.07 contact info  
Example: Example 1: 1000  
Example 2: 1000  
Example 3: 1000  
Example 4: 1000  
Example 5: 1000  
Example 6: 1000  
Example 7: 1000  
Example 8: 1000  
Example 9: 1000  
Example 10: 1000  
Example 11: 1000  
Example 12: 1000  
Example 13: 1000  
Example 14: 1000  
Example 15: 1000  
Example 16: 1000  
Example 17: 1000  
Example 18: 1000  
Example 19: 1000  
Example 20: 1000  
Example 21: 1000  
Example 22: 1000  
Example 23: 1000  
Example 24: 1000  
Example 25: 1000  
Example 26: 1000  
Example 27: 1000  
Example 28: 1000  
Example 29: 1000  
Example 30: 1000  
Example 31: 1000  
Example 32: 1000  
Example 33: 1000  
Example 34: 1000  
Example 35: 1000  
Example 36: 1000  
Example 37: 1000  
Example 38: 1000  
Example 39: 1000  
Example 40: 1000  
Example 41: 1000  
Example 42: 1000  
Example 43: 1000  
Example 44: 1000  
Example 45: 1000  
Example 46: 1000  
Example 47: 1000  
Example 48: 1000  
Example 49: 1000  
Example 50: 1000  
Example 51: 1000  
Example 52: 1000  
Example 53: 1000  
Example 54: 1000  
Example 55: 1000  
Example 56: 1000  
Example 57: 1000  
Example 58: 1000  
Example 59: 1000  
Example 60: 1000  
Example 61: 1000  
Example 62: 1000  
Example 63: 1000  
Example 64: 1000  
Example 65: 1000  
Example 66: 1000  
Example 67: 1000  
Example 68: 1000  
Example 69: 1000  
Example 70: 1000  
Example 71: 1000  
Example 72: 1000  
Example 73: 1000  
Example 74: 1000  
Example 75: 1000  
Example 76: 1000  
Example 77: 1000  
Example 78: 1000  
Example 79: 1000  
Example 80: 1000  
Example 81: 1000  
Example 82: 1000  
Example 83: 1000  
Example 84: 1000  
Example 85: 1000  
Example 86: 1000  
Example 87: 1000  
Example 88: 1000  
Example 89: 1000  
Example 90: 1000  
Example 91: 1000  
Example 92: 1000  
Example 93: 1000  
Example 94: 1000  
Example 95: 1000  
Example 96: 1000  
Example 97: 1000  
Example 98: 1000  
Example 99: 1000  
Example 100: 1000

**ECS**  
Alyssa Mrvos  
5112 Pegasus Court, Suite 3, Frederick, Maryland 21704  
301-668-4303  
301-668-3519  
amrvos@ecslimited.com  
Administration Building Annex II  
Project No. 13-3521  
11/12/2008 00:00  
ASB PLM  
120 Hours - 5 days

Sample Number	Data 1	Sample Description	Data 2
ASB-01	Basement Apartment	Wall Plaster	BI GI is Tan Cvbs GI - Pls Sample
ASB-02	Basement Printer Room	Wall Plaster	
ASB-03	Basement Desk Room	Wall Plaster	
ASB-04	Basement West Stairwell	Wall Plaster	
ASB-05	1st Floor West Office Area	Mudded Joint	
ASB-06	Basement Apartment	Mudded Joint	
ASB-07	Basement Hallway	Mudded Joint	
ASB-08	2nd Level Back Area	Mortar between Concrete	
ASB-09	Basement Boiler Room	Mortar between Concrete	
ASB-10	Basement Boiler Room	Mortar between Concrete	
ASB-11	Basement Boiler Room	Carpet & Glue	
ASB-12	Basement Desk Room	Carpet & Glue	
ASB-13	Basement Desk Room	1'x1' Ceiling Tile	
ASB-14	Basement Desk Room	1'x1' Ceiling Tile	
ASB-15	Basement Desk Room	1'x1' Ceiling Tile	
ASB-16	2nd Level Top Left Side of Stairwell	2'x4' Fissure Pinhole Ceiling Tile	
ASB-17	Basement Hallway	2'x4' Fissure Pinhole Ceiling Tile	
ASB-18	Basement Hallway to West Stairwell	2'x4' Fissure Pinhole Ceiling Tile	
ASB-19	1st Floor West Office Area	Mudded Pipe Elbow	
ASB-20	2nd Level Rear Sink Area	Mudded Pipe Elbow	
ASB-21	Basement Desk Room		
ASB-22	Basement Desk Room		

Accept-  
Rejects

809675

ASB-23	Basement Desk Room	Mudded Pipe Elbow	
ASB-24	Basement Hallway to West Stairwell	9"x9" Beige Speckled Floortile w/Black Glue	
ASB-25	Basement Storage Room w/Racks	9"x9" Beige Speckled Floortile w/Black Glue	
ASB-26	1st Floor Bank Vault	9"x9" Beige Speckled Floortile w/Black Glue	
ASB-27	Basement West Stairwell	Black 4" Covebase w/Glue	
ASB-28	Basement Storage Room w/Racks	Black 4" Covebase w/Glue	
ASB-29	1st Floor Bank Vault	Black 4" Covebase w/Glue	
ASB-30	PNC Bank West Side Entrance	Black Mat w/Yellow Glue	
ASB-31	PNC Bank West Side Entrance	Black Mat w/Yellow Glue	
ASB-32	PNC Bank West Side Entrance	Black Mat w/Yellow Glue	
ASB-33	Basement Hallway to West Stairwell	Drywall	
ASB-34	1st Floor Bank Vault	Drywall	
ASB-35	2nd Level East Side Office Area	Drywall	
ASB-36	Basement Hallway to West Stairwell	2'x2' Fissure Pinhole Ceiling Tile	
ASB-37	2nd Level West Side Office Area	2'x2' Fissure Pinhole Ceiling Tile	
ASB-38	2nd Level West Side Office Area	2'x2' Fissure Pinhole Ceiling Tile	
ASB-39	Basement Storage Room w/o Racks	Joint Compound	
ASB-40			
ASB-41	2nd Level East Side Office Area	Joint Compound	No Sample
ASB-42	Basement Boiler Room	Mudded Joint	
ASB-43	Basement Boiler Room	Black Tar	
ASB-44	Basement Boiler Room	Mudd by Boiler Pipe	
ASB-45	1st Floor West Office Area	Wall Plaster	
ASB-46	1st Floor West Office Area	Pink Carpet w/Yellow Glue	
ASB-47	2nd Floor East Side Office Area	Pink Carpet w/Yellow Glue	
ASB-48	2nd Floor East Side Office Area	Pink Carpet w/Yellow Glue	
ASB-49	1st Floor West Office Area	12"x12" Beige Speckled Floortile w/Glue	
ASB-50			
ASB-51			No Sample
ASB-52	1st Floor West Office Area	6" Tan Covebase Glue	No Sample
ASB-53	2nd Floor East Side Office Area	6" Tan Covebase Glue	
ASB-54	2nd Floor East Side Office Area	6" Tan Covebase Glue	
ASB-55	Main Stairwell	Carpet & Glue	
ASB-56	Main Stairwell	Carpet & Glue	
ASB-57	Main Stairwell	Carpet & Glue	
ASB-58	2nd Level East Side Office Area	2'x2' Ceiling Tile	
ASB-59	2nd Level East Side Office Area	2'x2' Ceiling Tile	
ASB-60	2nd Level East Side Office Area	2'x2' Ceiling Tile	
ASB-61	2nd Level East Side Office Area	Roofing Material	Above Ceiling Tiles
ASB-62	2nd Level East Side Office Area	Roofing Material	Above Ceiling Tiles
ASB-63	2nd Level East Side Office Area	Roofing Material	Above Ceiling Tiles

Yellow Glue is Carpet Glue - Do not Sample

No Sample

No Sample  
No Sample

Above Ceiling Tiles  
Above Ceiling Tiles  
Above Ceiling Tiles



80967

ASB-64	2nd Level East Side Office Area	Roofing Tar Material	Above Ceiling Tiles
ASB-65	2nd Level East Side Office Area	Roofing Tar Material	Above Ceiling Tiles
ASB-66	2nd Level East Side Office Area	Roofing Tar Material	Above Ceiling Tiles
ASB-67	2nd Level East Side Office Area	Roof Shingle	Above Ceiling Tiles
ASB-68	2nd Level East Side Office Area	Roof Shingle	Above Ceiling Tiles
ASB-69	2nd Level East Side Office Area	Roof Shingle	Above Ceiling Tiles
ASB-70	2nd Level Back Area	Linoleum Floor Sheeting w/Black Glue	Above Ceiling Tiles
ASB-71	2nd Level Back Area	Linoleum Floor Sheeting w/Black Glue	
ASB-72	2nd Level Back Area	Linoleum Floor Sheeting w/Black Glue	
ASB-73	2nd Level HVAC Room	Gray Carpet w/Glue	
ASB-74	2nd Level HVAC Room	Gray Carpet w/Glue	
ASB-75	2nd Level HVAC Room	Gray Carpet w/Glue	
ASB-76	2nd Level HVAC Room	Gray Covebase w/Glue	
ASB-77	2nd Level HVAC Room	Gray Covebase w/Glue	
ASB-78	2nd Level HVAC Room	Gray Covebase w/Glue	
ASB-79	2nd Level Back Sink Area	2'x4' Ceiling Tile	
ASB-80	2nd Level Back Closet	Wall Plaster	
ASB-81	2nd Level File Room	9"x9" Beige Speckled Floortile w/Black Glue	
ASB-82	2nd Level File Room	Brown 4" Covebase w/Glue	
ASB-83	2nd Level File Room	Brown 4" Covebase w/Glue	
ASB-84	2nd Level File Room	Brown 4" Covebase w/Glue	
ASB-85	2nd Level West Side Office Area	Blue Carpet w/Glue	
ASB-86	2nd Level West Side Office Area	Blue Carpet w/Glue	
ASB-87	2nd Level West Side Office Area	Blue Carpet w/Glue	
ASB-88	2nd Level West Side Office Area	4" Beige Covebase w/Glue	
ASB-89	2nd Level West Side Office Area	4" Beige Covebase w/Glue	
ASB-90	2nd Level West Side Office Area	4" Beige Covebase w/Glue	
ASB-91	2nd Level West Side Office Area	2'x2' Ceiling Tile	
ASB-92	2nd Level West Side Office Area	2'x2' Ceiling Tile	
ASB-93	2nd Level West Side Office Area	2'x2' Ceiling Tile	
ASB-94	2nd Level West Side Office Area	Fireproofing	
ASB-95	2nd Level West Side Office Area	Fireproofing	
ASB-96	2nd Level West Side Office Area	Fireproofing	
ASB-97	2nd Level West Side Office Area	Drywall	
ASB-98	2nd Level West Side Office Area	Joint Compound	
ASB-99	2nd Level West Side Office Area	Gray/Blue Carpeting w/Glue	
ASB-100	2nd Level West Side Office Area	1'x1' Ceiling Tile	
ASB-101	1st Level Hallway by Private Office Door	Joint Compound	
ASB-102	1st Level Hallway by Private Office Door	Drywall	
ASB-103	1st Level Hallway by Private Office Door	Red Carpet w/ Glue	
ASB-104	1st Level Hallway by Private Office Door	Red Carpet w/ Glue	

Above Ceiling Tiles  
Above Ceiling Tiles  
Above Ceiling Tiles

809625

ASB-105	1st Level Hallway by Private Office Door	Red Carpet w/ Glue
ASB-106	1st Level Hallway by Private Office Door	1x1' Ceiling Tile
ASB-107	1st Level Hallway by Private Office Door	Wallpaper & Glue
ASB-108	1st Level Hallway by Private Office Door	Wallpaper & Glue
ASB-109	1st Level Hallway by Private Office Door	Wallpaper & Glue
ASB-110	3rd Level Book Area	2x2' Ceiling Tile
ASB-111	3rd Level Office	2x2' Ceiling Tile
ASB-112	3rd Level Office	2x2' Ceiling Tile
ASB-113	3rd Level Hallway	Wallpaper & Glue
ASB-114	3rd Level Hallway	Wallpaper & Glue
ASB-115	3rd Level Hallway	Wallpaper & Glue
ASB-116	3rd Level Hallway	Drywall
ASB-117	3rd Level Hallway	Joint Compound
ASB-118	3rd Level Hallway	Blue Carpet w/Glue
ASB-119	3rd Level Hallway	Blue Carpet w/Glue
ASB-120	3rd Level Hallway	Blue Carpet w/Glue
ASB-121	3rd Level HVAC Room	HVAC Glue
ASB-122	3rd Level Partition Room	4" Tan Covebase w/Glue
ASB-123	3rd Level Kitchen	Floor Sheeting w/Glue
ASB-124	3rd Level Kitchen	Floor Sheeting w/Glue
ASB-125	3rd Level Closet	Floor Sheeting w/Glue

>>



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**NVLAP**<sup>®</sup>

NVLAP Lab Code: 200664-0

**Customer:** ECS Frederick  
5112 Pegasus Ct Ste S  
Frederick, MD 21704

**Attn:** Alyssa Mrvos

**Lab Order ID:** 809962

**Analysis ID:** 809962PLM

**Date Received:** 11/24/2008

**Date Reported:** 11/24/2008

**Project:** Administration Building Annex II  
Project No 13-3521

Sample ID	Description	Asbestos	Fibrous Components		Non-Fibrous Components		Attributes
Lab Sample ID	Lab Notes						Treatment
ASB-126	Drywall	None Detected	15%	Cellulose	85%	Other	White, Brown Fibrous Heterogeneous
809962PLM_1	<i>drywall only</i>		Teased				
ASB-127	Drywall	None Detected	15%	Cellulose	85%	Other	White, Brown Fibrous Heterogeneous
809962PLM_2	<i>drywall only not enough joint compound to analyze</i>		Teased				
ASB-128	Drywall	None Detected	15%	Cellulose	85%	Other	White, Brown Fibrous Heterogeneous
809962PLM_3	<i>drywall: none detect; joint compnd: none detect</i>		Teased				

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Estimated MDL is 1%.

Ired Gulley (3)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

809962

**ECS**  
 Alyssa Mirvos  
 5112 Pegasus Court, Suite 3, Frederick, Ma  
 301-668-4303  
 301-668-3519  
 amrvos@ecslimited.com

Administration Building Annex II  
 Project No. 13-3521

ASB PLM  
 12 Hours

11/21/2008 00:00

**Scientific Analytical Institute, Inc**  
 302-L Pomona Dr  
 Greensboro, NC 27407  
 Phone: 336-292-3888  
 Fax: 336-292-3513  
 Email: lab@sallab.com

Sample Number	Location	Material
ASB-126	3rd Floor Janitor's Closet	Drywall
ASB-127	3rd Floor Mechanical Closet	Drywall
ASB-128	3rd Floor Closet Near Mechanical Closet	Drywall

Accepted

Rejected

*Handwritten signature*  
 11-24  
 10:30

**ATTACHMENT 2**

**TRIAD LIMITED-SCOPE ASBESTOS-CONTAINING  
MATERIALS SURVEY REPORT**



Inspectors, in accordance with U.S. EPA Standard 40 CFR 763, Subpart E, AHERA and Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1926.1101 protocol. Copies of Mr. Pearson's and Mr. Upham's accreditations are included in **Appendix A**. A visual assessment of all suspect ACM (SACM) was conducted to assess condition and friability. All of the collected bulk samples were submitted to EMSL Analytical Laboratory of Beltsville, Maryland (EMSL) for a standard five-day turnaround time.

## **ACM SURVEY RESULTS**

On June 19, 2014 (100 W. Washington) and July 23, 2014 (roof of 120 W. Washington), Triad was provided access to the proposed renovation areas by Mr. Brennan Garrett of WCDPW. Triad conducted a visual assessment for the potential presence of floor tiles beneath carpeting in the first floor bank area by cutting and removing representative sections of carpet from the customer lobby area and selected offices in the northern portion of the bank area. These areas were found to contain carpet and padding directly over concrete slab, terrazzo, or composite boards and no floor tiles or other resilient flooring applications were identified beneath the carpeting. The composite boards were reported to be non-asbestos in the 1990 abatement documentation. Twelve-inch floor tiles were observed in the bathroom and break room of the first floor bank area. Although these appeared to be a recent application, they were sampled and submitted for laboratory analysis.

The mechanical chase was only accessible from the penthouse level and was shielded by an enclosure constructed of wood-frame and drywall. Triad cut an approximate one-square-foot hole in the drywall top of this enclosure to facilitate observations of the interior of the chase. The interior walls of the chase were bare concrete masonry unit (CMU) or red brick, with no sprayed-on fireproofing visible. Pipes in the mechanical chase were uninsulated or contained fiberglass insulation; no SACM insulation was observed in the mechanical chase from the penthouse access.

The basement level appeared to contain original nine-inch and 12-inch floor tiles referenced as an Alternate Bid ACM in the 1990 abatement documentation. These floor tiles are not anticipated to be disturbed during the current renovation project and, at the request of Mr. Garrett, they were not submitted for laboratory analysis during the current survey. HVAC duct and other piping in the basement level contained fiberglass insulation, where any was present, and no SACM fittings were observed.

A total of 42 bulk samples of SACM were collected from 18 homogenous areas in the proposed renovation areas and submitted to EMSL for analysis. EMSL is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for analysis of bulk materials for asbestos content and a copy of EMSL's NVLAP accreditation is included in **Appendix A**. In addition to identification of each homogenous area of SACM, the inspector also evaluated friability of each sampled material with hand pressure. A friable material is defined as any material able to be crushed, crumbled, pulverized or reduced to a powder by hand pressure when dry. A description of the samples collected, the general material locations, and the results of the laboratory analyses are summarized in the following table. The EMSL laboratory analysis report is included in **Appendix B**.

**ACM SURVEY RESULTS**

<b>100 West Washington Street</b>				
<b>Sample Number</b>	<b>Description (Homogenous Area Number)</b>	<b>Locations and Approximate Quantity (if ACM)</b>	<b>Asbestos Content</b>	<b>Friable? (if ACM)</b>
0037-061914-01 0037-061914-02 0037-061914-03	Yellow Mastic (HA-1)	Beneath Carpet in Bank Area – First Floor	ND	---
0037-061914-04 0037-061914-05 0037-061914-06	12" Floor Tile (HA-2)	Bathroom and Break Room in Bank Area – First Floor	ND (Mastic ND)	---
0037-061914-07 0037-061914-08 0037-061914-09	Black Mastic (HA-3)	Beneath Carpet on Composite Board in Bank Area – First Floor	ND	---
0037-061914-10 0037-061914-11 0037-061914-12	White Caulk (HA-4)	Windows in Bank Area – First Floor	ND	---
<b>0037-061914-13 0037-061914-14 0037-061914-15</b>	<b>9" Floor Tile - White (HA-5)</b>	<b>Bank Vault – First Floor (225 square feet)</b>	<b>7% Chrysotile (Mastic ND)</b>	<b>No</b>
0037-061914-22 0037-061914-23 0037-061914-24	Yellow Seam Sealant (HA-8)	Supply Duct Fiberglass Insulation – County Storeroom – Basement	ND	---
0037-061914-31 0037-061914-32 0037-061914-33	12" Floor Tile – Black with White Streaks (HA-11)	Stairwells	ND (Mastic ND)	---
0037-061914-34 0037-061914-35 0037-061914-36	12" Floor Tile – White with Black Streaks (HA-12)	Stairwells	ND (Mastic ND)	---
0037-061914-37 0037-061914-38 0037-061914-39	Cementitious Aggregate Binder (HA-13)	Green Aggregate Façade – 120 West Washington	ND	---
0037-061914-40 0037-061914-41 0037-061914-42	Black Flashing with Silver Paint (HA-14)	Roof – 100 West Washington	ND	---
0037-061914-43 0037-061914-44 0037-061914-45	Roofing Tar (HA-11)	Roof – 100 West Washington	ND	---
0037-061914-46 0037-061914-47 0037-061914-48	White Caulk (HA-11)	Roof Parapet – 120 West Washington	ND	---

ND – No asbestos fibers Detected.

Note: Homogenous Areas 6 and 7 (sample numbers -16 through -21) and homogenous areas 9 and 10 (sample numbers -25 through -30) sampled during this survey consisted of floor tiles from the basement level. As stated, these samples were not submitted for analysis at the request of WCDPW and should be assumed to contain asbestos until laboratory analysis can establish otherwise.



<b>120 West Washington Street Roof – Upper Eastern Section</b>				
<b>Sample Number</b>	<b>Sample Description (Homogenous Area Number)</b>	<b>Locations and Approximate Quantity (if ACM)</b>	<b>Asbestos Content</b>	<b>Friable? (if ACM)</b>
RC-1	Composite Sample of Roof System – Rubber Membrane; Fiberboard Insulation; Tar Ballasts; Tar Paper (120 HA-1)	Throughout	ND	---
R-2	Silver Paint Sealant (120 HA-2)	Northeastern Corner of Roof	ND	---
R-3	Gray Rubber Troweled Patch (120 HA-3)	East-Central Portion of Roof	ND	---
R-4	Gray Asphalt Patch (120 HA-4)	Roof Perimeter	ND	---
<b>R-5</b>	<b>White/Gray Caulk (120 HA-5)</b>	<b>Ventilation Stack at Southwestern Corner of Roof (5 square feet)</b>	<b>5% Chrysotile</b>	<b>No</b>
R-6	Gray Caulk (120 HA-6)	Flashing on Eastern Parapet Wall	ND	---

ND – No asbestos fibers Detected.

Note: Homogenous Area numbers for sampling at the upper eastern section of the roof at 120 West Washington are denoted with the prefix 120 for clarification. Chain of custody documentation does not contain the prefix 120.

Based upon the results of the ACM survey and laboratory analysis of the SACM samples, ACMs are present in the proposed renovation areas in the form of white nine-inch floor tiles in the bank vault on the first floor of 100 West Washington and white/gray caulk on ventilation stacks in the upper eastern roof of 120 West Washington. No other ACMs were identified during the Limited-Scope ACM Survey. The First Floor Plan – Demolition drawing, prepared by Bushey Feight Morin and annotated by Triad to note the location of the asbestos-containing floor tile, is included in **Appendix C**.

## **RECOMMENDATIONS**

Based on the results of Triad’s investigations at the site, Triad makes the following recommendations:

- The identified asbestos-containing floor tiles are a Category I nonfriable ACM according to NESHAP, which would only become a regulated ACM if it has become friable or will be subject to sanding, cutting, grinding, or abrading during demolition or renovation. The asbestos-containing caulk is considered a Category II nonfriable ACM according to NESHAP, which would only become a regulated ACM if it has a high probability of becoming friable during demolition or renovation. Triad recommends these materials be removed and disposed of as asbestos waste by a Maryland-accredited asbestos

abatement contractor in accordance with applicable EPA, OSHA, and COMAR requirements prior to demolition activity that would disturb them.

Triad makes no other warranty, either expressed or implied, as to the professional services contained herein. If you should have any questions or require further assistance, please contact us at 703.729.3456.

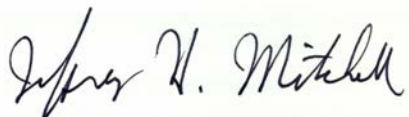
Sincerely,

Triad Engineering, Inc.



---

Bradley C. Pearson, CIH, CHMM  
Certified Industrial Hygienist



---

Jeffrey H. Mitchell, CPG  
Environmental Services Manager

**APPENDIX A**  
**INSPECTOR AND LABORATORY ACCREDITATIONS**

Brad Pearson

Name

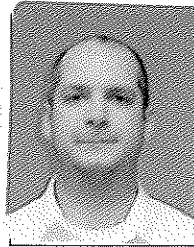
Signature

HAS ATTENDED AND PASSED THE EXAM IN  
AN ASBESTOS TRAINING COURSE ENTITLED:

PROJECT DESIGNER REFRESHER

Course Name

FOR ACCREDITATION UNDER TSCA TITLE II.



(STATE SEAL IS BLUE)

01/24/2014      01/24/2015      02/27/2014  
Course Date(s)      Expiration Date      Exam Date

No 126153 STATE OF MARYLAND

Brad Pearson

Name

Signature

HAS ATTENDED AND PASSED THE EXAM IN  
AN ASBESTOS TRAINING COURSE ENTITLED:

INSPECTOR REFRESHER

Course Name

FOR ACCREDITATION UNDER TSCA TITLE II.



(STATE SEAL IS BLUE)

02/10/2014      02/10/2015      02/27/2014  
Course Date(s)      Expiration Date      Exam Date

No 125649 STATE OF MARYLAND

# AEROSOL MONITORING & ANALYSIS, INC.

*This is to certify that*  
**PATRICK UPHAM**

*has met the attendance requirements and successfully completed*  
*the course entitled*

**4-Hour EPA AHERA Inspector Refresher**

*For Accreditation Under TSCA Title II*

07/30/2013

**Course Date**

07/30/2013

**Exam Date**

7/30/2014

**Expiration Date**

MIKE DRABO

**Principal Instructor**

*Michael W. Drabo*

124351

**Certification No.**

VA124351

**Virginia Certification No.**

E. Rush Barnett

**Course Director**

*E. Rush Barnett*

1331 Ashton Road

P.O. Box 646

Hanover, MD 21076

P: 410-684-3322

[www.amatraining.com](http://www.amatraining.com)

PATRICK UPHAM  
Name  
Signature *Patrick Upham*  
HAS ATTENDED AND PASSED THE EXAM IN AN ASBESTOS TRAINING COURSE ENTITLED:  
4-Hour EPA AHERA Inspector Refresher  
Course Name  
FOR ACCREDITATION UNDER TSCA TITLE II.  
Course Date(s) 07/30/2013  
Expiration Date 7/30/2014  
(STATE SEAL IS BLUE)  
Exam Date 7/30/2013  
N9 124351 AMA STATE OF MARYLAND





**National Voluntary  
Laboratory Accreditation Program**



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**EMSL Analytical, Inc.**  
 10768 Baltimore Avenue  
 Beltsville, MD 20705  
 Mr. Joseph Centifonti  
 Phone: 301-937-5700 Fax: 301-937-5701  
 E-Mail: jcentifonti@emsl.com  
 URL: http://www.emsl.com

**BULK ASBESTOS FIBER ANALYSIS (PLM)**

**NVLAP LAB CODE 200293-0**

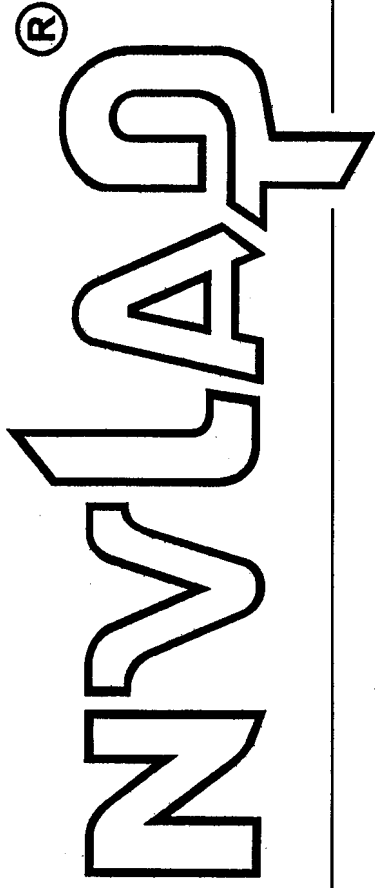
<i>NVLAP Code</i>	<i>Designation / Description</i>
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

2014-01-01 through 2014-12-31

*Effective dates*

*For the National Institute of Standards and Technology*

United States Department of Commerce  
National Institute of Standards and Technology



---

## Certificate of Accreditation to ISO/IEC 17025:2005

---

NVLAP LAB CODE: 200293-0

**EMSL Analytical, Inc.**  
Beltsville, MD

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

### **BULK ASBESTOS FIBER ANALYSIS**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-IAC-IAF Communique dated January 2009).*

2014-01-01 through 2014-12-31

Effective dates



A handwritten signature in black ink, appearing to read "W. R. M. L. D.", written over a horizontal line.

For the National Institute of Standards and Technology

**APPENDIX B**  
**EMSL LABORATORY ANALYSIS REPORTS**





# EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com>

[beltsvillelab@emsl.com](mailto:beltsvillelab@emsl.com)


EMSL Order:	191405769
CustomerID:	TRIA62
CustomerPO:	
ProjectID:	

Attn: <b>Brad Pearson</b> <b>Triad Engineering, Inc.</b> <b>21641 Beaumeade Circle</b> <b>Suite 300</b> <b>Ashburn, VA 20147</b>	Phone: (703) 729-3456 Fax: (703) 729-3459 Received: 06/23/14 9:00 AM Analysis Date: 6/26/2014 Collected: 6/19/2014
Project: <b>05-14-0037</b>	

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
01 <i>191405769-0001</i>	YELLOW MASTIC BENEATH CARPET IN BANK AREA	Yellow Fibrous Homogeneous	10% Synthetic	90% Non-fibrous (other)	None Detected
02 <i>191405769-0002</i>	YELLOW MASTIC BENEATH CARPET IN BANK AREA	Yellow Fibrous Homogeneous	8% Synthetic	92% Non-fibrous (other)	None Detected
03 <i>191405769-0003</i>	YELLOW MASTIC BENEATH CARPET IN BANK AREA	Yellow Fibrous Homogeneous	12% Synthetic	88% Non-fibrous (other)	None Detected
04-Floor Tile <i>191405769-0004</i>	12" FT BATHRM & BREAK RM BANK AREA	Tan/Beige Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (other)	None Detected
04-Mastic <i>191405769-0004A</i>	12" FT BATHRM & BREAK RM BANK AREA	Yellow Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
05-Floor Tile <i>191405769-0005</i>	12" FT BATHRM & BREAK RM BANK AREA	White/Beige Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (other)	None Detected
05-Mastic <i>191405769-0005A</i>	12" FT BATHRM & BREAK RM BANK AREA	Brown/Yellow Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected

Analyst(s)  
Luba Stockert (46)

  
Joe Centifonti, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
Samples analyzed by EMSL Analytical, Inc. Beltsville, MD NVLAP Lab Code 200293-0

Initial report from 06/26/2014 14:11:47



# EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com>

[beltsvillelab@emsl.com](mailto:beltsvillelab@emsl.com)


EMSL Order:	191405769
CustomerID:	TRIA62
CustomerPO:	
ProjectID:	

Attn: <b>Brad Pearson</b> <b>Triad Engineering, Inc.</b> <b>21641 Beaumeade Circle</b> <b>Suite 300</b> <b>Ashburn, VA 20147</b>	Phone: (703) 729-3456 Fax: (703) 729-3459 Received: 06/23/14 9:00 AM Analysis Date: 6/26/2014 Collected: 6/19/2014
Project: <b>05-14-0037</b>	

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
06-Floor Tile <i>191405769-0006</i>	12" FT BATHRM & BREAK RM BANK AREA	White/Beige Non-Fibrous Homogeneous		55% Ca Carbonate 45% Non-fibrous (other)	None Detected
06-Mastic <i>191405769-0006A</i>	12" FT BATHRM & BREAK RM BANK AREA	Yellow Non-Fibrous Homogeneous	6% Cellulose	94% Non-fibrous (other)	None Detected
07 <i>191405769-0007</i>	BLK. MASTIC BENEATH CARPET ON COMP. BOARD IN BANK - AREA	Brown Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
08 <i>191405769-0008</i>	BLK. MASTIC BENEATH CARPET ON COMP. BOARD IN BANK - AREA	Brown/Black Fibrous Homogeneous	18% Cellulose	82% Non-fibrous (other)	None Detected
09 <i>191405769-0009</i>	BLK. MASTIC BENEATH CARPET ON COMP. BOARD IN BANK - AREA	Brown/Black Fibrous Homogeneous	12% Cellulose	88% Non-fibrous (other)	None Detected
10 <i>191405769-0010</i>	WHT. CAULK 1ST FL WINDOWS IN BANK AREA	Cream Fibrous Homogeneous	10% Synthetic	90% Non-fibrous (other)	None Detected
11 <i>191405769-0011</i>	WHT. CAULK 1ST FL WINDOWS IN BANK AREA	Cream Fibrous Homogeneous	12% Synthetic	88% Non-fibrous (other)	None Detected

Analyst(s)  
Luba Stockert (46)

  
Joe Centifonti, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
Samples analyzed by EMSL Analytical, Inc. Beltsville, MD NVLAP Lab Code 200293-0

Initial report from 06/26/2014 14:11:47



# EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com>

[beltsvillelab@emsl.com](mailto:beltsvillelab@emsl.com)


EMSL Order:	191405769
CustomerID:	TRIA62
CustomerPO:	
ProjectID:	

Attn: <b>Brad Pearson</b> <b>Triad Engineering, Inc.</b> <b>21641 Beaumeade Circle</b> <b>Suite 300</b> <b>Ashburn, VA 20147</b>	Phone: (703) 729-3456 Fax: (703) 729-3459 Received: 06/23/14 9:00 AM Analysis Date: 6/26/2014 Collected: 6/19/2014
Project: <b>05-14-0037</b>	

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
12 <i>191405769-0012</i>	WHT. CAULK 1ST FL WINDOWS IN BANK AREA	Cream Fibrous Homogeneous	12% Synthetic	88% Non-fibrous (other)	None Detected
13-Floor Tile <i>191405769-0013</i>	9" FT WHT. BANK VAULT	White Non-Fibrous Homogeneous		93% Non-fibrous (other)	7% Chrysotile
13-Mastic <i>191405769-0013A</i>	9" FT WHT. BANK VAULT	Black Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (other)	None Detected
14-Floor Tile <i>191405769-0014</i>	9" FT WHT. BANK VAULT				Stop Positive (Not Analyzed)
14-Mastic <i>191405769-0014A</i>	9" FT WHT. BANK VAULT	Black Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected
15-Floor Tile <i>191405769-0015</i>	9" FT WHT. BANK VAULT				Stop Positive (Not Analyzed)
15-Mastic <i>191405769-0015A</i>	9" FT WHT. BANK VAULT	Black Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (other)	None Detected
22 <i>191405769-0016</i>	YELLOW SEAM SEALANT SUPPLY DUCT IN. BSMT COUNTRY - STORE RM	Tan/Silver Fibrous Heterogeneous	15% Glass	85% Non-fibrous (other)	None Detected

Analyst(s)  
Luba Stockert (46)

  
Joe Centifonti, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
Samples analyzed by EMSL Analytical, Inc. Beltsville, MD NVLAP Lab Code 200293-0

Initial report from 06/26/2014 14:11:47



# EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com>

[beltsvillelab@emsl.com](mailto:beltsvillelab@emsl.com)


EMSL Order:	191405769
CustomerID:	TRIA62
CustomerPO:	
ProjectID:	

Attn: <b>Brad Pearson</b> <b>Triad Engineering, Inc.</b> <b>21641 Beaumeade Circle</b> <b>Suite 300</b> <b>Ashburn, VA 20147</b>	Phone: (703) 729-3456 Fax: (703) 729-3459 Received: 06/23/14 9:00 AM Analysis Date: 6/26/2014 Collected: 6/19/2014
Project: 05-14-0037	

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
23 191405769-0017	YELLOW SEAM SEALANT SUPPLY DUCT IN. BSMT COUNTRY - STORE RM	Tan/Silver Fibrous Heterogeneous	12% Glass	88% Non-fibrous (other)	None Detected
24 191405769-0018	YELLOW SEAM SEALANT SUPPLY DUCT IN. BSMT COUNTRY - STORE RM	Tan/Silver/Yellow Fibrous Homogeneous	15% Glass	85% Non-fibrous (other)	None Detected
31-Floor Tile 191405769-0019	12" FT BLK. W/WHT. STREAKS STAIRWELLS	Black Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (other)	None Detected
31-Mastic 191405769-0019A	12" FT BLK. W/WHT. STREAKS STAIRWELLS	Yellow Non-Fibrous Homogeneous	6% Cellulose	94% Non-fibrous (other)	None Detected
32-Floor Tile 191405769-0020	12" FT BLK. W/WHT. STREAKS STAIRWELLS	Black Non-Fibrous Homogeneous		55% Ca Carbonate 45% Non-fibrous (other)	None Detected
32-Mastic 191405769-0020A	12" FT BLK. W/WHT. STREAKS STAIRWELLS	Yellow Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected

Analyst(s)  
Luba Stockert (46)

  
Joe Centifonti, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
Samples analyzed by EMSL Analytical, Inc. Beltsville, MD NVLAP Lab Code 200293-0

Initial report from 06/26/2014 14:11:47



# EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com>

[beltsvillelab@emsl.com](mailto:beltsvillelab@emsl.com)

EMSL Order:	191405769
CustomerID:	TRIA62
CustomerPO:	
ProjectID:	

Attn: **Brad Pearson**  
**Triad Engineering, Inc.**  
**21641 Beaumeade Circle**  
**Suite 300**  
**Ashburn, VA 20147**


Phone: (703) 729-3456  
 Fax: (703) 729-3459  
 Received: 06/23/14 9:00 AM  
 Analysis Date: 6/26/2014  
 Collected: 6/19/2014

Project: 05-14-0037

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
33-Floor Tile 191405769-0021	12" FT BLK. W/WHT. STREAKS STAIRWELLS	Black Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (other)	None Detected
33-Mastic 191405769-0021A	12" FT BLK. W/WHT. STREAKS STAIRWELLS	Tan Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (other)	None Detected
34-Floor Tile 191405769-0022	12" FT WHT. W/BLK. STREAKS STAIRWELLS	White Non-Fibrous Homogeneous		55% Ca Carbonate 45% Non-fibrous (other)	None Detected
34-Mastic 191405769-0022A	12" FT WHT. W/BLK. STREAKS STAIRWELLS	Yellow Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
35-Floor Tile 191405769-0023	12" FT WHT. W/BLK. STREAKS STAIRWELLS	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (other)	None Detected
35-Mastic 191405769-0023A	12" FT WHT. W/BLK. STREAKS STAIRWELLS	Yellow Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
36-Floor Tile 191405769-0024	12" FT WHT. W/BLK. STREAKS STAIRWELLS	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (other)	None Detected

Analyst(s)  
 Luba Stockert (46)

  
 Joe Centifonti, Laboratory Manager  
 or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
 Samples analyzed by EMSL Analytical, Inc. Beltsville, MD NVLAP Lab Code 200293-0

Initial report from 06/26/2014 14:11:47



# EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com>

[beltsvillelab@emsl.com](mailto:beltsvillelab@emsl.com)


EMSL Order:	191405769
CustomerID:	TRIA62
CustomerPO:	
ProjectID:	

Attn: <b>Brad Pearson</b> <b>Triad Engineering, Inc.</b> <b>21641 Beaumeade Circle</b> <b>Suite 300</b> <b>Ashburn, VA 20147</b>	Phone: (703) 729-3456 Fax: (703) 729-3459 Received: 06/23/14 9:00 AM Analysis Date: 6/26/2014 Collected: 6/19/2014
Project: <b>05-14-0037</b>	

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
36-Mastic 191405769-0024A	12" FT WHT. W/BLK. STREAKS STAIRWELLS	Yellow Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (other)	None Detected
37 191405769-0025	CEMENTITIOUS AGGREGATE BINDER FASCIA OF 120 W. - WASHINGTON	Gray/White Non-Fibrous Homogeneous	6% Cellulose	12% Quartz 82% Non-fibrous (other)	None Detected
38 191405769-0026	CEMENTITIOUS AGGREGATE BINDER FASCIA OF 120 W. - WASHINGTON	Gray Non-Fibrous Homogeneous		18% Quartz 82% Non-fibrous (other)	None Detected
39 191405769-0027	CEMENTITIOUS AGGREGATE BINDER FASCIA OF 120 W. - WASHINGTON	Gray Non-Fibrous Homogeneous		16% Quartz 84% Non-fibrous (other)	None Detected
40 191405769-0028	BLK. FLASHING W/SILVER PAINT ROOF OF 100 W. - WASHINGTON	Black/Silver Fibrous Homogeneous	3% Cellulose 4% Wollastonite	93% Non-fibrous (other)	None Detected
41 191405769-0029	BLK. FLASHING W/SILVER PAINT ROOF OF 100 W. - WASHINGTON	Black/Silver Fibrous Homogeneous	17% Glass	83% Non-fibrous (other)	None Detected

Analyst(s)  
Luba Stockert (46)

  
Joe Centifonti, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
Samples analyzed by EMSL Analytical, Inc. Beltsville, MD NVLAP Lab Code 200293-0

Initial report from 06/26/2014 14:11:47



# EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com>

[beltsvillelab@emsl.com](mailto:beltsvillelab@emsl.com)


EMSL Order:	191405769
CustomerID:	TRIA62
CustomerPO:	
ProjectID:	

Attn: <b>Brad Pearson</b> <b>Triad Engineering, Inc.</b> <b>21641 Beaumeade Circle</b> <b>Suite 300</b> <b>Ashburn, VA 20147</b>	Phone: (703) 729-3456 Fax: (703) 729-3459 Received: 06/23/14 9:00 AM Analysis Date: 6/26/2014 Collected: 6/19/2014
Project: <b>05-14-0037</b>	

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
42 191405769-0030	BLK. FLASHING W/SILVER PAINT ROOF OF 100 W. - WASHINGTON	Black/Silver Fibrous Homogeneous	6% Wollastonite 3% Cellulose	91% Non-fibrous (other)	None Detected
43 191405769-0031	ROOFING TAR ROOF OF 100 W. WASHINGTON	Black Non-Fibrous Homogeneous		12% Quartz 88% Non-fibrous (other)	None Detected
44 191405769-0032	ROOFING TAR ROOF OF 100 W. WASHINGTON	Black Fibrous Heterogeneous	3% Glass	5% Quartz 92% Non-fibrous (other)	None Detected
45 191405769-0033	ROOFING TAR ROOF OF 100 W. WASHINGTON	Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (other)	None Detected
46 191405769-0034	WHT. CAULK PARAPET OF 120 W. WASHINGTON	Gray/White Fibrous Homogeneous	16% Cellulose	84% Non-fibrous (other)	None Detected
47 191405769-0035	WHT. CAULK PARAPET OF 120 W. WASHINGTON	Gray/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
48 191405769-0036	WHT. CAULK PARAPET OF 120 W. WASHINGTON	Gray/White Fibrous Heterogeneous	18% Cellulose	82% Non-fibrous (other)	None Detected

Analyst(s)  
Luba Stockert (46)

  
Joe Centifonti, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
Samples analyzed by EMSL Analytical, Inc. Beltsville, MD NVLAP Lab Code 200293-0

Initial report from 06/26/2014 14:11:47

**EMSL Analytical, Inc.**

10768 Baltimore Avenue, Beltsville, MD 20705

Phone/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com>[beltsvillelab@emsl.com](mailto:beltsvillelab@emsl.com)

EMSL Order: 191407297

CustomerID: TRIA62

CustomerPO:

ProjectID:

Attn: **Brad Pearson**  
**Triad Engineering, Inc.**  
**21641 Beaumeade Circle**  
**Suite 300**  
**Ashburn, VA 20147**

Phone: (703) 729-3456  
 Fax: (703) 729-3459  
 Received: 07/24/14 9:30 AM  
 Analysis Date: 7/24/2014  
 Collected: 7/23/2014

Project: 05-14-0037

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
RC-1 191407297-0001	2 RUBBER MEMBRANE LAYER, ADH., FIBER INS., TAR - BALLASTS & TAR PAPER ROOF SYSTEM CORE	Brown/Black Fibrous Heterogeneous	45% Cellulose 20% Synthetic	35% Non-fibrous (other)	None Detected
Sample composited.					
R-2 191407297-0002	SILVER PAINT ON RUBBER MEMBRANE NE CORNER OF ROOF	Black/Silver Fibrous Homogeneous	5% Cellulose 5% Glass 3% Synthetic	87% Non-fibrous (other)	None Detected
R-3 191407297-0003	GRAY RUBBER TROWELED PATCH E. CENTRAL ROOF	Brown/Gray/Black Fibrous Homogeneous	15% Cellulose 10% Synthetic	75% Non-fibrous (other)	None Detected
R-4 191407297-0004	GRAY ASPHALT PATCH ROOF PERIMETER	Brown/Gray/Black Fibrous Homogeneous	5% Cellulose 25% Glass	10% Quartz 60% Non-fibrous (other)	None Detected
R-5 191407297-0005	WHT. & GRAY CAULK VENTILATION STACK	Gray/Tan/White Fibrous Homogeneous	7% Cellulose	88% Non-fibrous (other)	5% Chrysotile
R-6 191407297-0006	GRAY CAULK EASTERN FLASHING	Gray/White/Black Fibrous Homogeneous	5% Cellulose 5% Glass	90% Non-fibrous (other)	None Detected

Analyst(s)

George Malone (6)

Joe Centifonti, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
 Samples analyzed by EMSL Analytical, Inc. Beltsville, MD NVLAP Lab Code 200293-0

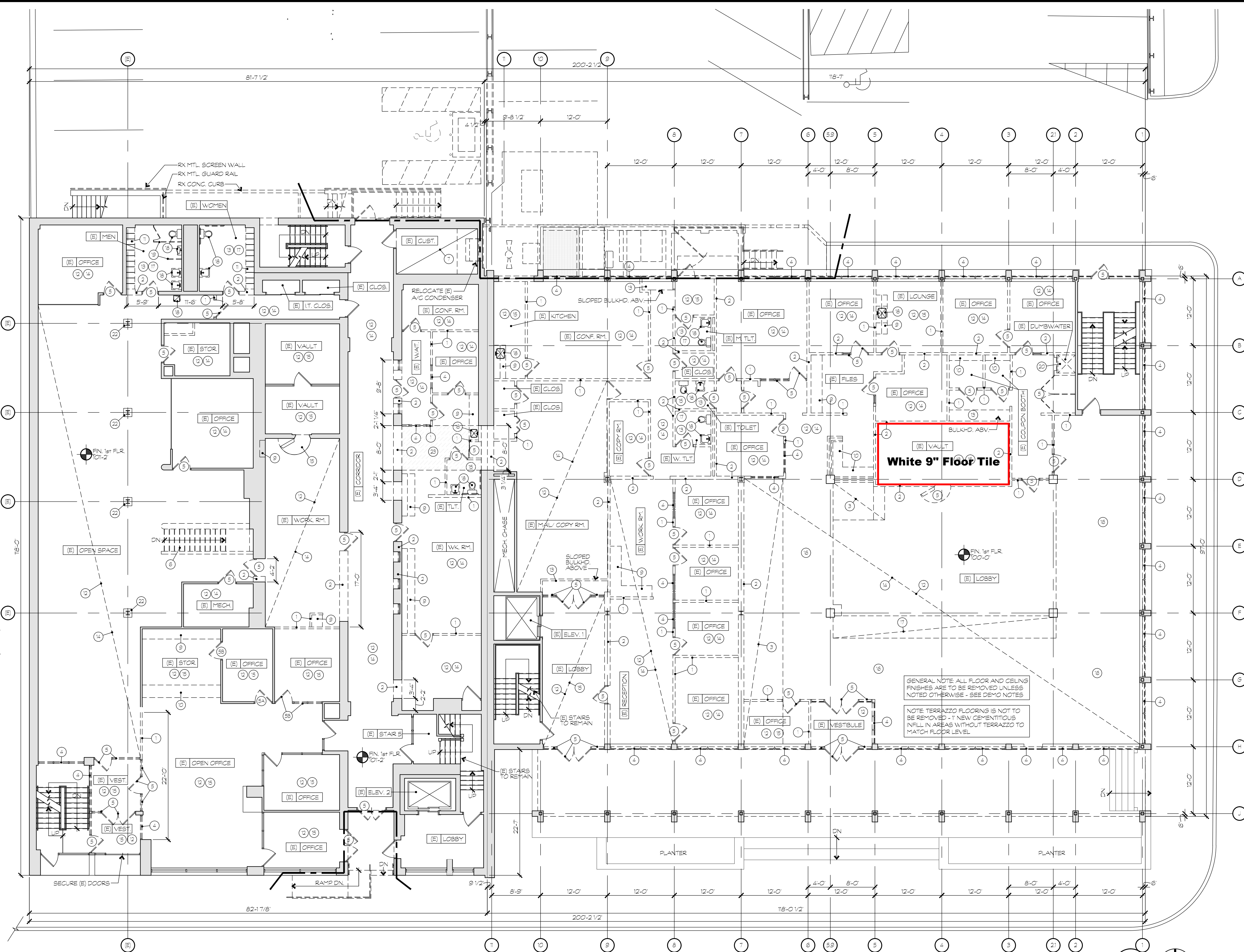
Initial report from 07/25/2014 08:50:49



**APPENDIX C**  
**ACM LOCATIONS**  
**FIRST FLOOR PLAN – DEMOLITION DRAWING**  
**ROOF PLAN**

**DEMOLITION NOTES**

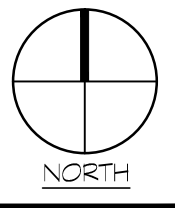
- 1 REMOVE (E) STUD WALLS/DEMOUNTABLE PARTITION. PATCH & REPAIR ADJACENT WALLS & FLOOR AS REQUIRED.
- 2 SAWCUT & REMOVE (E) MASONRY WALL - PATCH & REPAIR ADJACENT WALLS & FLOOR AS REQUIRED. REMOVE TO MIN. 1 CMU COURSE BELOW FINISH SLAB.
- 3 REMOVE (E) PLYWD/CEMENTITIOUS BD. FLOOR BUILD-UP DOWN TO CONC. SLAB. REFER TO STRUCTURAL DRAWINGS.
- 4 REMOVE (E) WINDOW FRAME, SILL, GLAZING, AND ASSOCIATED HARDWARE - PATCH & REPAIR ADJACENT WALLS AS REQUIRED.
- 5 REMOVE (E) DOOR & FRAME AS SHOWN. PATCH & REPAIR ADJACENT WALLS & FLOOR AS REQUIRED.
- 5A REMOVE (E) DOOR, (E) FRAME TO REMAIN
- 5B REMOVE (E) DOOR, RELOCATE (E) FRAME
- 6 REMOVE (E) STU/CONC. STAIRS, HANDRAILS, SUPPORTS, & ANY SURROUNDING HALF WALLS - PATCH & REPAIR ADJACENT WALLS & INFILL FLOOR AS REQUIRED.
- 7 REMOVE (E) ROTTED WOOD FLOORING & ANY DAMAGED FLOOR FRAMING - PATCH & REPAIR ADJACENT WALLS AS REQUIRED.
- 8 SAWCUT & REMOVE (E) CONC STAIR/ RAMP, & SIDEWALK. PATCH & REPAIR ADJACENT SURFACES AS REQUIRED. REFER TO CIVIL DRAWINGS FOR ADDITIONAL SITE WORK.
- 9 REMOVE (E) SHELVING/ CASEWORK & APPLIANCES - PATCH & REPAIR ADJACENT FINISHES AS REQUIRED.
- 10 REMOVE (E) DESK/COUNTERTOP & ASSOCIATED HARDWARE PATCH & REPAIR ADJACENT FINISHES AS REQUIRED.
- 11 REMOVE (E) LOCKERS AS SHOWN. PATCH & REPAIR ADJACENT FINISHES AS REQUIRED.
- 12 REMOVE (E) SUSPENDED ACOUSTICAL TILE CEILING - PATCH & REPAIR ADJACENT WALLS AS REQUIRED.
- 13 REMOVE (E) GYP BD CEILING. PATCH & REPAIR ADJACENT SURFACES AS REQUIRED.
- 14 REMOVE (E) CARPET & BASE - PREPARE CONC. SLAB FOR NEW FLOOR FINISH.
- 15 REMOVE (E) VCT FLOORING - PREPARE CONC. SLAB FOR NEW FLOOR FINISH.
- 16 SCRAPE, CLEAN, & PREPARE (E) TERRAZZO FLOORING TO RECEIVE NEW FLOOR FINISH.
- 17 REMOVE (E) MUD SET CERAMIC TILE AND SETTING BED AS SHOWN. PREPARE CONC. SLAB FOR NEW FLOOR FINISH.
- 18 REMOVE (E) PLUMBING FIXTURE. REFER TO PLUMBING DRAWINGS. PATCH & REPAIR ADJACENT FINISHES AS REQUIRED.
- 19 REMOVE (E) TOILET PARTITIONS, PARTITION DOORS AND/ OR ACCESSORIES. PATCH & REPAIR ADJACENT WALLS AND FLOOR AS REQUIRED.
- 20 REMOVE (E) DUMBWAITER CAB & ACCESSORIES. PATCH & REPAIR ADJACENT FINISHES AS REQUIRED.
- 21 REMOVE PORTION OF (E) PARKING DIVIDER AS SHOWN.
- 22 REMOVE (E) MTL. FURRING/ GYP. BD. ENCLOSURE AROUND COLUMN.
- 23 REMOVE (E) FLOOR FRAMING AS REQUIRED FOR NEW RAMP INSTALLATION (SEE NEW WORK)



GENERAL NOTE: ALL FLOOR AND CEILING FINISHES ARE TO BE REMOVED UNLESS NOTED OTHERWISE - SEE DEMO NOTES  
 NOTE: TERRAZZO FLOORING IS NOT TO BE REMOVED - 1 NEW CEMENTITIOUS INFILL IN AREAS WITHOUT TERRAZZO TO MATCH FLOOR LEVEL

**FIRST FLOOR PLAN - DEMOLITION**

1/8" = 1'-0"  
 1/8" = 1'-0"  
 SCALE 0 5 10 15 20 FEET



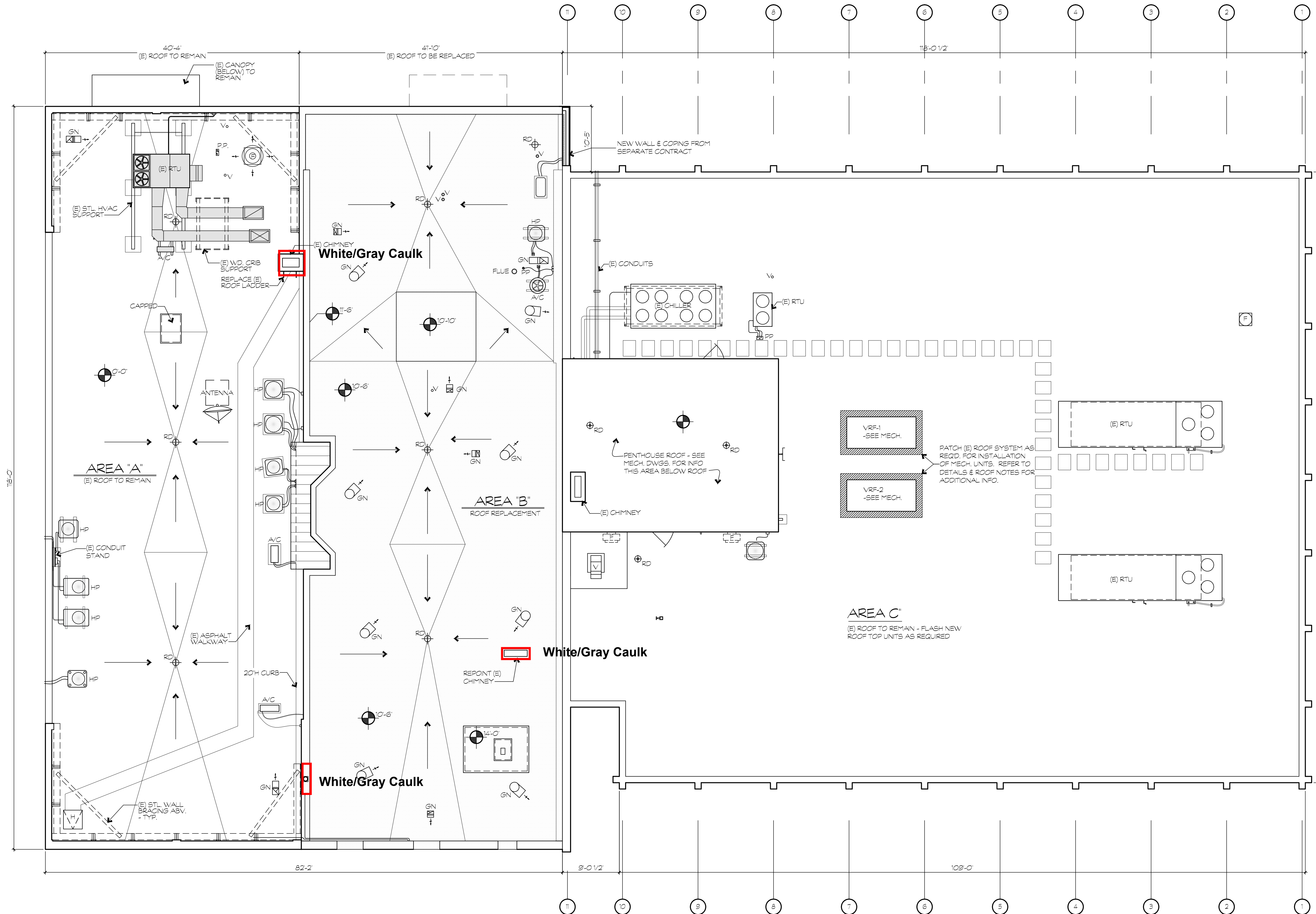
DRAWINGS INTEND TO INDICATE GENERAL ARRANGEMENT DESIGN AND INTENT OF WORK IS PARTIALLY DIAGRAMMATIC. IT SHALL NOT BE SCALED FOR CONSTRUCTION. VERIFY ALL DIMENSIONS AND CONDITIONS ON SITE. SHOP DRAWINGS CONTRACTOR'S RESPONSIBILITY FOR VERIFICATION OF DIMENSIONS.

DESIGN/INTENT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE No. 8278  
 EXPIRATION DATE 09/02/14

**BUSHEY FEIGHT MORIN ARCHITECTS, INC.**  
 475 North Potomac Street, Hagerstown, Md 21740  
 301-733-5600 Fax 301-733-5612  
 E-mail: BFM@BFM-Architects.com  
 © copyright 2014, Bushey Feight Morin Architects, Inc.

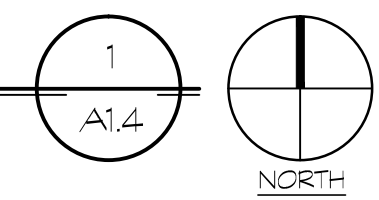
**BFM**  
**BUSHEY FEIGHT MORIN ARCHITECTS, INC.**  
**WASH. CO. CENTRAL ADMIN. BUILDING**  
**INTERIOR RENOVATIONS**

FIRST FLOOR PLAN - DEMO  
**D1.1**  
 OF SHEETS  
 DATE: 06.11.14



ROOF PLAN

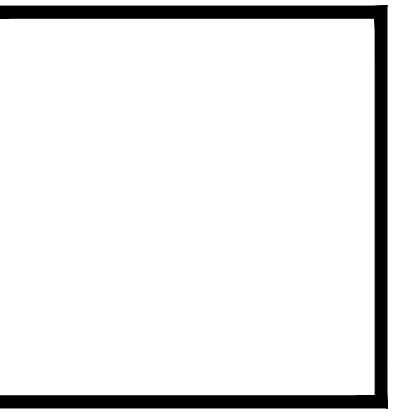
1/8" = 1'-0"  
 1/8" = 1'-0"  
 SCALE



PROGRESS PRINT - NOT FOR CONSTRUCTION

DRAWINGS INTEND TO INDICATE GENERAL ARRANGEMENT DESIGN AND INTENT OF WORK IS PARTLY DIAGRAMMATIC. IT SHALL NOT BE SCALED FOR CONSTRUCTION. VERIFY ALL CONDITIONS ON SITE. SHOP DRAWINGS CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF DIMENSIONS.

DESIGNER: THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE No. 8278  
 EXPIRATION DATE 09/02/14



BUSHEY FEIGHT MORN ARCHITECTS INC.  
 475 North Potomac Street, Hagerstown, Md 21740  
 301/733-5600 Fax 301-733-5612  
 E-mail: BFM@BFMArchitects.com  
 © copyright 2014, Bushey Feight Morn Architects, Inc.

**BFM**  
 BUSHEY FEIGHT MORN ARCHITECTS INC.  
 WASH. CO. CENTRAL ADMIN. BUILDING  
 INTERIOR RENOVATIONS

ROOF PLAN  
**A1.4**  
 OF SHEETS  
 DATE: 06.11.14

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
  - 1. Demolishing designated building equipment and fixtures.
  - 2. Demolishing designated construction.
  - 3. Cutting and alterations for completion of the Work.
  - 4. Protecting items designated to remain.
  - 5. Removing demolished materials.
- B. Related Sections:
  - 1. Section 01500 – Temporary Facilities and Controls.
  - 2. Section 02222- Hazardous Material Survey

1.2 SUBMITTALS

- A. Section 01330 - Submittal Procedures: Requirements for submittals.
- B. Demolition Schedule: Indicate overall schedule and interruptions required for utility and building services.
- C. Shop Drawings:
  - 1. Indicate location of items designated for reuse and Owner's retention.
  - 2. Indicate location and construction of temporary work.

1.3 CLOSEOUT SUBMITTALS

- A. Section 01700 - Execution Requirements: Requirements for submittals.
- B. Project Record Documents: Accurately record actual locations of capped utilities, concealed utilities discovered during demolition, and subsurface obstructions.
- C. Operation and Maintenance Data: Submit description of system, inspection data, and parts lists.

1.4 QUALITY ASSURANCE

- A. Conform to applicable codes for demolition work, dust control, products requiring electrical disconnection and re-connection.
- B. Conform to applicable codes for procedures when hazardous or contaminated materials are discovered.
- C. Obtain required permits from authorities having jurisdiction.
- D. Perform Work in accordance with State of Maryland and City of Hagerstown standards.

1.5 PRE-INSTALLATION MEETINGS

- A. Section 01300 - Administrative Requirements: Pre-installation meeting.

- B. Convene minimum one week prior to commencing work of this section.

## 1.6 SEQUENCING

- A. Section 01100 - Summary: Requirements for sequencing.
- B. Sequence demolition activities in accordance with the proposed project phasing.
- C. Owner will conduct salvage operations before demolition begins to remove materials Owner chooses to retain.

## 1.7 SCHEDULING

- A. Section 01321 – Network Analysis Schedules: Requirements for scheduling.
- B. Schedule Work to coincide with construction.
- C. Cooperate with Owner in scheduling noisy operations and waste removal that may impact Owners operation in adjoining spaces.
- D. Perform noisy, malodorous, dusty work in accordance with all local ordinances.
- E. Coordinate utility and building service interruptions with Owner.
  - 1. Do not disable or disrupt building fire or life safety systems without three days prior written notice to Owner.
  - 2. Schedule tie-ins to existing systems to minimize disruption.
  - 3. Coordinate Work to ensure fire sprinklers, fire alarms, smoke detectors, emergency lighting, exit signs and other life safety systems remain in full operation in occupied areas.

## 1.8 PROJECT CONDITIONS

- A. Conduct demolition to minimize interference with adjacent and occupied building areas.
- B. Cease operations immediately if structure appears to be in danger and notify Architect/Engineer. Do not resume operations until directed.

## PART 2 PRODUCTS

Not Used.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Notify affected utility companies before starting work and comply with their requirements.
- B. Mark location and termination of utilities.
- C. Erect, and maintain temporary barriers and security devices at locations indicated, including warning signs and lights, and similar measures, for protection of the public, Owner, and existing improvements indicated to remain.

- D. Erect and maintain weatherproof closures for exterior openings.
- E. Erect and maintain temporary partitions to prevent spread of dust, odors, and noise to permit continued Owner occupancy.
- F. Prevent movement of structure; provide temporary bracing and shoring required to ensure safety of existing structure.
- G. Provide appropriate temporary signage including signage for exit or building egress.
- H. Do not close or obstruct building egress path.
- I. Do not disable or disrupt building fire or life safety systems without 3 days prior written notice to Owner.

### 3.2 SALVAGE REQUIREMENTS

- A. Owner has first rights of refusal for all equipment and materials.
- B. Coordinate with Owner to identify building components and equipment required to be removed and delivered to Owner.
- C. Tag components and equipment Owner designates for salvage.
- D. Protect designated salvage items from demolition operations until items can be removed.
- E. Carefully remove building components and equipment indicated to be salvaged.
- F. Disassemble as required to permit removal from building.
- G. Package small and loose parts to avoid loss.
- H. Mark equipment and packaged parts to permit identification and consolidation of components of each salvaged item.
- I. Prepare assembly instructions consistent with disassembled parts. Package assembly instructions in protective envelope and securely attach to each disassembled salvaged item.
- J. Deliver salvaged items to Owner. Obtain signed receipt from Owner.

### 3.3 DEMOLITION

- A. Conduct demolition to minimize interference with adjacent and occupied building areas.
- B. Maintain protected egress from and access to adjacent existing buildings at all times.
- C. Do not close or obstruct roadways and sidewalks without permits.
- D. Cease operations immediately when structure appears to be in danger and notify Architect/Engineer and Owner.

- E. Disconnect and remove designated utilities within demolition areas.
- F. Cap and identify abandoned utilities at termination points when utility is not completely removed. Annotate Record Drawings indicating location and type of service for capped utilities remaining after demolition.
- G. Demolish in orderly and careful manner. Protect existing improvements, and supporting structural members.
- H. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.
- I. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.
- J. Remove temporary Work.

END OF SECTION