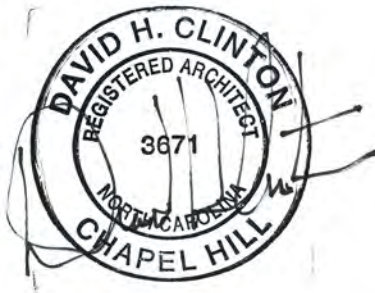


ABATEMENT SPECIFICATION

Fayetteville State University Bryant Hall and Vance Hall – Demolition and Abatement



BID SET

7 February 2022

Szostak Design, Inc. Chapel Hill, NC

SPECIFICATIONS FOR:

**ABATEMENT BID PACKAGE
Bryant Hall and Vance Hall – Demolition and Abatement
Fayetteville State University
1200 Murchison Road,
Fayetteville, NC 27599**

**SCO # 21-23459-01
Code: 42034; Item: 4B01**

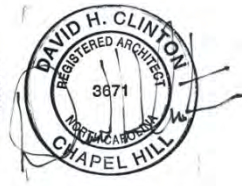
Owner

Fayetteville State University
1200 Murchison Road
Fayetteville, NC 28301

Contact Person:
Harold Miller, Project Manager
Fayetteville State University
Facilities Management, Planning & Construction
(910) 672-1952

Civil Engineering

CLHdesign
400 Regency Forest Drive, Suite 120
Cary, NC 27518
(919) 291-7377
smiller@clhdesignpa.com



7 February 2022

Architects + Planners

Szostak Design, Inc.
310 ½ Franklin Street
Chapel Hill, North Carolina 27516

Contact Person:
David Clinton, Principal
(919) 618-0166
dclinton@szostakdesign.com

Abatement Designer

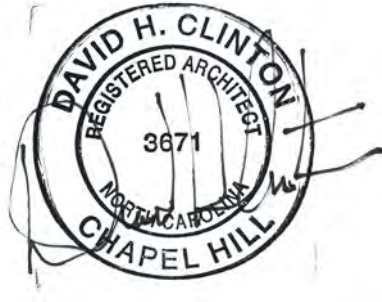
Affinity Energy and Environmental Engineers
P.O. Box 2261
Asheville, NC 28802
(828) 421-6901
dholtsclaw@affenv.com

Cost Estimator

PALACIOLLABORATIVE, INC.
4819 Emperor Blvd, Suite 400,
Durham, NC 27703
(919) 605-8952
tmurphy@palaciocollaborative.com

ADVERTISEMENT FOR BIDS

Sealed proposals will be received until 3:00 PM on March 8th, 2022 in the Conference Rm 129, Facilities Bldg, 1200 Murchison Road, Fayetteville, NC, for the abatement of Vance Dormitory and Bryant Dormitory, Fayetteville State University. SCO # 21-23459-01, Code: 42034; Item: 4B01, at which time and place bids will be opened and read. Pre-bid meeting will be held February 22nd at 10 a.m. beginning at the Facilities Building and then visiting the two buildings. Complete plans and specifications for this project can be obtained from: Szostak Design, 310 1/2 W Franklin St, Chapel Hill, NC 27516, (919) 929-5244 during normal office hours after February 14, 2022. Plan Deposit \$ 100.00. Electronic copies are also available by request. The State reserves the unqualified right to reject any and all proposals.



7 February 2022

000002 - TABLE OF CONTENTS

DIVISION 0 BIDDING AND CONTRACT REQUIREMENTS **PAGES**

000000	Cover	2
000001	Fly Sheet.....	2
000002	Bid Advertisement	2
000003	Table of Contents	2
000004	State Construction Office – Informal Contract – 2006 (rev. 10/2010)	8

DIVISION 1 GENERAL REQUIREMENTS

011000	Summary.....	4
012600	Contract Modification Procedures.....	2
017700	Closeout Procedures	2

DIVISION 2 EXISTING CONDITIONS

022000	Hazardous Materials Abatement Prior to Demolition	264
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DIVISION 3 CONCRETE (not used)

DIVISION 4 MASONRY (not used)

DIVISION 5 METALS (not used)

DIVISION 6 WOOD, PLASTICS, AND COMPOSITES (not used)

DIVISION 7 THERMAL AND MOISTURE PROTECTION (not used)

DIVISION 8 OPENINGS (not used)

DIVISION 9 FINISHES (not used)

DIVISION 10 SPECIALTIES (not used)

DIVISION 11 EQUIPMENT (not used)

DIVISION 12 FURNISHINGS (not used)

DIVISION 13 SPECIAL CONSTRUCTION (not used)

DIVISION 14 CONVEYING SYSTEMS (not used)

DIVISION 15 PLUMBING MECHANICAL (not used)

DIVISION 22 SITE-RELATED PLUMBING SYSTEMS (not used)

DIVISION 26 ELECTRICAL SYSTEMS (not used)

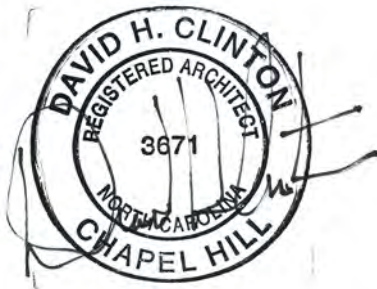
DIVISION 28 FIRE ALARM (not used)

DIVISION 31 EARTHWORK (not used)

DIVISION 32 EXTERIOR IMPROVEMENTS (not used)

DIVISION 33 UTILITIES (not used)

END OF SECTION



7 February 2022

INFORMAL CONTRACT

FOR

Fayetteville State University
Vance Dormitory and Bryant Dormitory Abatement
1200 Murchison Road, Fayetteville, NC

SCOPE OF WORK

Remove existing aluminum windows, storefront and curtain wall and install thermally broken aluminum units as shown on the Drawings.

By Alternate Bid, provide Pre-Engineered Aluminum Canopies where shown on the Drawings.

NOTICE TO BIDDERS

Sealed proposals for this work will be received by:

Harold Miller
Project Manager
Fayetteville State University
Facilities Management, Planning & Construction
1200 Murchison Road, Newbold Station
Fayetteville, NC 28301-4298
Phone (910) 672-1977

up to **3:00 PM**, on March 8, 2022 and immediately thereafter publicly opened and read aloud. Complete plans and specification and contract documents can be obtained from

Designer Contact:
David Clinton, Principal
Szostak Design, Inc.
310 ½ West Franklin Street
Chapel Hill, NC, 27516
919.618.0166
dclinton@szostakdesign.com

Contractors are hereby notified that they must have proper license under the State laws governing their respective trades and that North Carolina General Statute 87 will be observed in receiving and awarding contracts. General Contractors must have active **Intermediate** or **Unlimited** general contractor license in the "Building" classification.

A bid bond, performance bond, and payment bond are required for this project.

No bid may be withdrawn after the opening of bids for a period of 30 days. The Owner reserves the right to reject any or all bids and waive informalities. Proposals shall be made only on the form provided herein with all blank spaces for bids properly filled in and all signatures properly executed.

Please note on the envelope – **Bid Proposal: Attn: Harold Miller**

CBE Window Replacements
(Bid Date)
(Contractor)
(License Number)

A **Pre-Bid Conference** will be conducted at 10 a.m., on February 22, 2022, beginning at the Facilities and Construction Office. **All Prime Contract Bidders are required to attend this conference.**

Bryant Hal - Vance Hall Demolition and Abatement
Fayetteville State University

000004 - 2

Szostak Design, Inc.
Chapel Hill, North Carolina

GENERAL CONDITIONS

GENERAL

It is understood and agreed that by submitting a bid that the Contractor has examined these contract documents, drawings and specifications and has visited the site of the Work, and has satisfied himself relative to the Work to be performed.

MATERIALS, EQUIPMENT AND EMPLOYEES

The contractor shall, unless otherwise specified, supply and pay for all labor, transportation, materials, tools, apparatus, lights, power, fuel, sanitary facilities and incidentals necessary for the completion of his work, and shall install, maintain and remove all equipment of the construction, other utensils or things, and be responsible for the safe, proper and lawful construction, maintenance and use of same, and shall construct in the best and most workmanlike manner, a complete job and everything incidental thereto, as shown on the plans, stated in the specifications, or reasonably implied there from, all in accordance with the contract documents.

All materials shall be new and of quality specified, except where reclaimed material is authorized herein and approved for use. Workmanship shall at all times be of a grade accepted as the best practice of the particular trade involved, and as stipulated in written standards of recognized organizations or institutes of the respective trades except as exceeded or qualified by the specifications.

No changes shall be made in the Work except upon written approval and change order of the Designer/Owner. Change orders shall be subject to provisions in the current North Carolina Construction Manual.

Products are generally specified by ASTM or other reference standard and/or by manufacturer's name and model number or trade name. When specified only by reference standard, the Contractor may select any product meeting this standard, by any manufacturer. When several products or manufacturers are specified as being equally acceptable, the Contractor has the option of using any product and manufacturer combination listed.

However, the contractor shall be aware that the cited examples are used only to denote the quality standard of product desired and that they do not restrict bidders to a specific brand, make, manufacturer or specific name; that they are used only to set forth and convey to bidders the general style, type, character and quality of product desired; and that equivalent products will be acceptable. Substitution of materials, items or equipment of equal or equivalent design shall be submitted to the architect or engineer for approval or disapproval; such approval or disapproval shall be made by the architect or engineer prior to the opening of bids.

If at any time during the construction and completion of the work covered by these contract documents, the conduct of any workman of the various crafts be adjudged a nuisance to the Owner or if any workman be considered detrimental to the work, the Contractor shall order such parties removed immediately from the site.

The contractor shall designate a foreman/superintendent who shall direct the work.

CODES, PERMITS AND INSPECTIONS

The Contractor shall obtain the required permits, if required, give all notices, and comply with all laws, ordinances, codes, rules and regulations bearing on the conduct of the work under this contract. If the Contractor observes that the drawings and specifications are at variance therewith, he shall promptly notify the Designer in writing. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, codes, rules and regulations, and without such notice to the Owner, he shall bear all cost arising there from.

All work under this contract shall conform to the current North Carolina State Building Code and other state and national codes as are applicable

Projects constructed by the State of North Carolina or by any agency or institution of the State are not subject to county or municipal building codes and may* not be subject to inspection by county or municipal authorities. The Contractor shall, however, cooperate with the county or municipal authorities by obtaining building permits. Permits may be obtained by the contractor at no cost to the owner.

*Inspection and certification of compliance by local authorities is necessary if an architect or engineer was not employed on the project, or if the plans and specifications were not approved and the construction inspected by the State Construction Office.

SAFETY REQUIREMENTS

The Contractor shall be responsible for the entire site and the construction of the same and provide all the necessary protections as required by laws or ordinances governing such conditions and as required by the Owner or Designer. He shall be responsible for any damage to the Owner's property or that of others on the job, by himself, his personnel or his subcontractors, and shall make good such damages. He shall be responsible for and pay for any claims against the Owner arising from such damages.

The Contractor shall adhere to the rules, regulations and interpretations of the North Carolina Department of Labor relating to Occupational Safety and Health Standards for the Construction Industry (Title 29, Code of Federal Regulations, Part 1926 published in Volume 39, Number 122, Part 11, June 24, 1974 Federal Register), and revisions thereto as adopted by General Statutes of North Carolina 95-126 through 155.

The Contractor shall provide all necessary safety measures for the protection of all persons on the work, including the requirements of the AGC Accident Prevention Manual in Construction as amended, and shall fully comply with all state laws or regulations and North Carolina Building Code requirements to prevent accident or injury to persons on or about the location of the work. He shall clearly mark or post signs warning of hazards existing, and shall barricade excavations and similar hazards. He shall protect against damage or injury resulting from falling materials and he shall maintain all protective devices and signs throughout the progress of the work.

TAXES

Federal Excise Taxes do not apply to materials entering into State work (Internal Revenue Code, Section 3442(3)).

Federal Transportation Taxes do not apply to materials entering into State work (Internal Revenue Code, Section 3475 (b) as amended).

North Carolina Sales Taxes and Use Tax do apply to materials entering into State Work (N.C. Sales and Use Tax Regulation No. 42, Paragraph A), and such costs shall be included in the bid proposal and contract sum.

Local Option Sales and Use Taxes do apply to materials entering into State work as applicable (Local Option Sales and Use Tax Act, Regulation No. 57), and such cost shall be included in the bid proposal and contract sum.

ACCOUNTING PROCEDURES FOR REFUND OF COUNTY SALES & USE TAX (THIS SECTION ONLY APPLIES TO STATE OWNED PROJECTS)

Contractors for State owned projects shall provide the owner a signed statement containing the information listed in G.S. 105-164.14(e) for all materials purchased for the project.

The Department of Revenue has agreed that in lieu of obtaining copies of sales receipts from contractors, an agency may obtain a certified statement from the contractor setting forth the date, the type of property and the cost of the property purchased from each vendor, the county in which the vendor made the sale and the amount of local sales and use taxes paid thereon. If the property was purchased out-of-state, the county in which the property was delivered should be listed. The contractor should also be notified that the certified statement may be subject to audit.

In the event the contractors make several purchases from the same vendor, such certified statement must indicate the invoice numbers, the inclusive dates of the invoices, the total amount of the invoices, the counties, and the county sales and use taxes paid thereon.

Name of taxing county: The position of a sale is the retailer's place of business located within a taxing county where the vendor becomes contractually obligated to make the sale. Therefore, it is important that the county tax be reported for the county of sale rather than the county of use.

When property is purchased from out-of-state vendors and the county tax is charged, the county should be identified where delivery is made when reporting the county tax.

Such statement must also include the cost of any tangible personal property withdrawn from the contractor's warehouse stock and the amount of county sales or use tax paid thereon by the contractor.

Similar certified statements by his subcontractors must be obtained by the general contractor and furnished to the claimant.

Contractors are not to include any tax paid on supplies, tools and equipment which they use to perform their contracts and should include only those building materials, supplies, fixtures and equipment which actually become a part of or annexed to the building or structure.

EQUAL OPPORTUNITY

In accordance with G.S. 143-128.2 (effective January 1, 2002) regarding guidelines and established goals for minority participation in single-prime bidding, separate-prime bidding, construction manager at risk, and alternative contracting methods, on State construction projects in the amount of \$300,000 or more. It is this University's requirement to adhere to this process on all construction projects. The legislation provides that the State shall have a verifiable ten percent (10%) goal for participation by minority businesses in the total value of work for each project for which a contract or contracts are awarded. It is the intent of these guidelines that the State of North Carolina, as awarding authority for construction projects, and the contractors and subcontractors performing the construction contracts awarded shall cooperate and in good faith do all things legal, proper and reasonable to achieve the statutory goal of ten percent (10%) for participation by minority businesses in each construction project as mandated by GS 143-128.2. Nothing in these guidelines shall be construed to require contractors or awarding authorities to award contracts or subcontracts to or to make purchases of materials or equipment from minority business contractors or minority-business subcontractors who do not submit the lowest responsible, responsive bid or bids.

INSURANCE

The Contractor shall not commence work until he has obtained all insurance required, and the Owner has approved such insurance, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been obtained.

The Contractor shall provide and maintain during the life of this contract Workmen's Compensation Insurance for all employees employed at the site of the project under his contract.

The Contractor shall provide and maintain during the life of this contract such Public Liability and Property Damage Insurance as shall protect him and any subcontractor performing work covered by this contract, from claims for damage for personal injury, including accidental death, as well as from claims for property damages which may arise from operations under this contract, whether such operation be by the Contractor himself or by any subcontractor, or by anyone directly or indirectly employed by either of them and the amounts of such insurance shall be as follows:

Public Liability Insurance in an amount not less than \$300,000 for injuries, including accidental death, to any one person and subject to the same limit for each person, in amount not less than \$500,000 on account of one accident; and Property Damage Insurance in an amount not less than \$100,000/\$300,000.

The Contractor shall furnish such additional insurance as may be required by General Statutes of North Carolina, including motor vehicle insurance in amounts not less than statutory limits.

Each Certificate of Insurance shall bear the provision:

“Notwithstanding the preprinted cancellation provisions on this form, coverages afforded under the policies will not be cancelled, reduced in amount nor will any coverages be eliminated until at least thirty (30) days after mailing written notice, by certified mail, return receipt requested, to the insured and the owner, of such alteration or cancellation.”

[This language can be continued on an attached and properly titled continuation sheet as long as the first clause (“Notwithstanding....form,”) is on the face of the form]

-----or if space will not allow b), at a minimum -----

Insert at a minimum in the block for Special Provisions, "Cancellation and notice provisions on the attached endorsements control over language on this form." Then attach the required language provided in b) above.

The Contractor shall furnish the Owner with satisfactory proof of carriage of the insurance required before written approval is granted by the Owner.

INVOICES FOR PAYMENT

No partial payment will be made unless agreed to in advance. Final payment will be made lump sum within forty-five (45) consecutive days after acceptance of the work and the submission both of notarized contractor's affidavit and four copies of invoices which are to include the contract, account and job order numbers.

The contractor's affidavit shall state: "This is to certify that all costs of materials, equipment, labor, and all else entering into the accomplishment of this contract, including payrolls, have been paid in full."

Executed contract documents, insurance certifications and, upon completion and acceptance of the work, invoices and other information requested are to be sent to:

Designer Contact:
David Clinton, Principal
Szostak Design, Inc.
310 ½ West Franklin Street
Chapel Hill, NC, 27516
919.929.5244 office
919.618.0166 cell

It is imperative that contract documents, invoices, etc., be sent only to the above address in order to assure proper and timely delivery and handling.

CLEANING UP

The Contractor shall keep the sites and surrounding area reasonably free from rubbish at all times and shall remove debris from the site from time to time or when directed to do so by the Owner. Before final inspection and acceptance of the project, the Contractor shall thoroughly clean the sites, and completely prepare the project and site for use by the Owner.

GUARANTEE

The contractor shall unconditionally guarantee materials and workmanship against patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve (12) months following the final acceptance of the work and shall replace such defective materials or workmanship without cost to the owner.

Where items of equipment or material carry a manufacturer's warranty for any period in excess of twelve (12) months, then the manufacturer's warranty shall apply for that particular piece of equipment or material. The contractor shall replace such defective equipment or materials, without cost to the owner, within the manufacturer's warranty period.

Additionally, the owner may bring an action for latent defects caused by the negligence of the contractor, which is hidden or not readily apparent to the owner at the time of beneficial occupancy or final acceptance, whichever occurred first, in accordance with applicable law.

Guarantees for roofing workmanship and materials shall be stipulated in the specifications sections governing such roof, equipment, materials, or supplies.

CONTRACTOR-SUBCONTRACTOR RELATIONSHIPS

The Contractor agrees that the terms of these contract documents shall apply equally to a subcontractor as to the Contractor, and that the subcontractor is bound by those terms as an employee of the Contractor.

Bryant Hal - Vance Hall Demolition and Abatement
Fayetteville State University

000004 - 4

Szostak Design, Inc.
Chapel Hill, North Carolina

SUPPLEMENTARY GENERAL CONDITIONS

TIME OF COMPLETION

The Contractor shall commence work to be performed under this Contract on a date to be specified in written order from the Designer and shall fully complete all work hereunder within 180 consecutive calendar days from the Notice to Proceed for base bid contract. For each day in excess of the above number of days, the Contractor shall pay the Owner the amount of Three Hundred Dollars (\$300.00) as liquidated damages reasonably estimated in advance to cover the losses to be incurred by the Owner should the Contractor fail to complete the Work within the time specified.

If the Contractor is delayed at any time in the progress of his work by any act or negligence of the Owner, his employees or his separate contractor, by changes ordered in the work; by abnormal weather conditions; by any causes beyond the Contractor's control or by other causes deemed justifiable by Owner, then the contract time may be reasonably extended in a written order from the Owner upon written request from the contractor within ten days following the cause for delay.

UTILITIES

Owner will provide power and water with connections and extensions by the Contractor. Use of existing toilets is prohibited.

SECURITY

All construction personnel are required to wear identification badges when working on campus.

USE OF SITE

Parking and Site Access is shown on the drawings. Parking is limited and workers may be required to parking a separate designated area. Parking Permits will be required and can be obtained at the University Police Office.

PERFORMANCE AND PAYMENT BONDS

Contractor shall furnish a Performance Bond and Payment Bond executed by a surety company authorized to do business in North Carolina. The bonds shall be in the full contract amount. Bonds shall be executed in the form bound with these specifications (Forms 307 & 308). An authorized agent of the bonding company who is licensed to do business in North Carolina shall countersign all bonds.

PROPOSAL AND CONTRACT

for

Fayetteville State University
Bryant Dormitory and Vance Dormitory Abatement
1200 Murchison Road, Fayetteville, NC

The undersigned, as bidder, proposes and agrees if this proposal is accepted to contract with the State of North Carolina through *Fayetteville State University* for the furnishing of all materials, equipment, and labor necessary to complete the construction of the work described in these documents in full and complete accordance with plans, specifications, and contract documents, and to the full and entire satisfaction of the State of North Carolina and the *Fayetteville State University* for the sum of:

BASE BID: _____ **Dollars \$** _____

Respectfully submitted this _____ day of _____ 2022

(Contractor)

Federal ID#: _____

By: _____

Witness: _____

Title: _____
(Owner, partner, corp. Pres. Or Vice President)

(Proprietorship or Partnership)

Address: _____

Attest: *(corporation)*

Email Address: _____

(Corporate Seal)

By: _____ License #: _____

Bryant Hal - Vance Hall Demolition and Abatement
Fayetteville State University

000004 - 6

Szostak Design, Inc.
Chapel Hill, North Carolina

Title: _____
(Corporation Secretary. / Ass't. Secretary.)

ACCEPTED by the STATE OF NORTH CAROLINA
through the

(Agency/Institution)

BY: _____ TITLE: _____

DATE: _____ 20_____

End of section

1 SECTION 011000 - SUMMARY

2 PART 1 - GENERAL

3 1.1 SUMMARY

4 A. Section Includes:

- 5 1. Project information.
- 6 2. Work covered by Contract Documents.
- 7 3. Phased construction and Contract Time.
- 8 4. Work under separate contracts.
- 9 5. Access to site.
- 10 6. Coordination with occupants.
- 11 7. Work restrictions.
- 12 8. Specification and drawing conventions.
- 13 9. Miscellaneous provisions.

14 B. Related Requirements:

- 15 1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures
- 16 governing temporary use of Owner's facilities.

17 1.2 PROJECT INFORMATION

- 18 A. Project Identification: Bryant Dormitory and Vance Dormitory Abatement
- 19 B. Project Locations: Fayetteville State University
- 20 1200 Murchison Road
- 21 Fayetteville, NC 28301
- 22 C. Owner: Fayetteville State University
- 23 D. Owner's Representative: Harold Miller, Project Manager.
- 24 E. Architect: Szostak Design Inc. David Clinton, Principal-in-Charge.

25 1.3 WORK COVERED BY CONTRACT DOCUMENTS

26 A. The Work of Project is defined by the Contract Documents and consists of the following items:

- 27
- 28 1. Removal of Hazardous Materials in the Buildings prior to their Demolition under separate
- 29 Contract.

30 B. Type of Contract.

- 31 1. Work will be performed under a single prime Informal SCO Contract.

32 1.4 WORK UNDER SEPARATE CONTRACTS

- 33 A. General: Cooperate fully with separate contractors so work on those contracts may be carried
- 34 out smoothly, without interfering with or delaying work under this Contract or other contracts.
- 35 Coordinate the Work of this Contract with work performed under separate contracts.

1 1.5 ACCESS TO SITE

2 A. General: Contractor shall have limited use of Project site for construction operations as
3 indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

4 B. Use of Site: Limit use of Project site to work in areas designated for each phase and areas
5 within the Contract limits indicated. Do not disturb portions of Project site beyond areas in
6 which the Work is indicated.

7 1. Limits: Limit work to only the rooms scheduled to have window replacements at the
8 appointed time.

9 2. Driveways, Walkways and Entrances: Keep driveways, loading areas, and entrances
10 serving premises clear and available to Owner, Owner's employees, and emergency
11 vehicles at all times. Do not use these areas for parking or storage of materials.

12 a. Schedule deliveries to minimize use of driveways and entrances by construction
13 operations.

14 b. Schedule deliveries to minimize space and time requirements for storage of
15 materials and equipment on-site.

16 c. Registration with the Campus Police of all company or employee vehicles brought
17 on campus is required along with the purchase of a \$75.00 contractor parking
18 permit for each vehicle.

19 1.6 COORDINATION WITH OCCUPANTS

20 A. Full Owner Occupancy: Owner will occupy site and existing buildings during entire construction
21 period. Cooperate with Owner during construction operations to minimize conflicts and facilitate
22 Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations.
23 Maintain existing exits unless otherwise indicated.

24 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used
25 facilities. Do not close or obstruct walkways, corridors, or other occupied or used
26 facilities without written permission from Owner and approval of authorities having
27 jurisdiction.

28 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's
29 operations.

30 1.7 WORK RESTRICTIONS

31 A. Work Restrictions, General: Comply with restrictions on construction operations.

32 1. Comply with limitations on use of public streets and with other requirements of authorities
33 having jurisdiction.

34 B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7
35 a.m. to 6 p.m., Monday through Friday, unless otherwise indicated.

36 C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner.

37 D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and
38 vibration, odors, or other disruption to Owner occupancy with Owner.

39 1. Notify Architect not less than five days in advance of proposed disruptive operations.

40 2. Obtain Architect's written permission before proceeding with disruptive operations.

- 1 E. Nonsmoking Building: Smoking is not permitted on the campus.
- 2 F. Controlled Substances: Use of tobacco products, alcohol, and other controlled substances on
3 Project site is not permitted.
- 4 G. Other Prohibitions: Firearms are forbidden on the Project site and may not be present in
5 vehicles used by construction personnel.
- 6 H. Comportment of Project Personnel: Fraternalization with university staff and students is
7 prohibited. All Project Personnel shall wear standardized badges that identify the name of the
8 company and name of the person on site for work of the Project. Appropriate attire (including
9 shirts) shall be worn at all times by Project Personnel.

10 1.8 SPECIFICATION AND DRAWING CONVENTIONS

- 11 A. Specification Content: The Specifications use certain conventions for the style of language and
12 the intended meaning of certain terms, words, and phrases when used in particular situations.
13 These conventions are as follows:
- 14 1. Imperative mood and streamlined language are generally used in the Specifications. The
15 words "shall," "shall be," or "shall comply with," depending on the context, are implied
16 where a colon (:) is used within a sentence or phrase.
- 17 2. Specification requirements are to be performed by Contractor unless specifically stated
18 otherwise.
- 19 B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work
20 of all Sections in the Specifications.
- 21 C. Drawing Coordination: Requirements for materials and products identified on Drawings are
22 described in detail in the Specifications. One or more of the following are used on Drawings to
23 identify materials and products:
- 24 1. Terminology: Materials and products are identified by the typical generic terms used in
25 the individual Specifications Sections.
- 26 2. Abbreviations: Materials and products are identified by abbreviations [published as part
27 of the U.S. National CAD Standard and scheduled on Drawings.
- 28 3. Keynoting: Materials and products are identified by reference keynotes referencing
29 Specification Section numbers found in this Project Manual.

30
31
32
33

1 PART 2 - PRODUCTS (Not Used)

2

3

4 PART 3 - EXECUTION (Not Used)

5

6

7 END OF SECTION 011000

1 SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

2 1.1 MINOR CHANGES IN THE WORK

3 1.2 PROPOSAL REQUESTS

4 A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed
5 changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If
6 necessary, the description will include supplemental or revised Drawings and Specifications.

7 1. Work Change Proposal Requests issued by Architect are not instructions either to stop
8 work in progress or to execute the proposed change.

9 2. Within time specified in Proposal Request or 14 days, when not otherwise specified, after
10 receipt of Proposal Request, submit a quotation estimating cost adjustments to the
11 Contract Sum and the Contract Time necessary to execute the change.

12 a. Include a list of quantities of products required or eliminated and unit costs, with
13 total amount of purchases and credits to be made. If requested, furnish survey
14 data to substantiate quantities.

15 b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of
16 trade discounts.

17 c. Include costs of labor and supervision directly attributable to the change.

18 d. Include an updated Contractor's construction schedule that indicates the effect of
19 the change, including, but not limited to, changes in activity duration, start and
20 finish times, and activity relationship. Use available total float before requesting an
21 extension of the Contract Time.

22 e. Quotation Form: Use forms included in Project Manual.

23 B. Contractor-Initiated Work Change Proposals: If latent or changed conditions require
24 modifications to the Contract, Contractor may initiate a claim by submitting a request for a
25 change to Architect.

26 1. Include a statement outlining reasons for the change and the effect of the change on the
27 Work. Provide a complete description of the proposed change. Indicate the effect of the
28 proposed change on the Contract Sum and the Contract Time.

29 2. Include a list of quantities of products required or eliminated and unit costs, with total
30 amount of purchases and credits to be made. If requested, furnish survey data to
31 substantiate quantities.

32 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade
33 discounts.

34 4. Include costs of labor and supervision directly attributable to the change.

35 5. Include an updated Contractor's construction schedule that indicates the effect of the
36 change, including, but not limited to, changes in activity duration, start and finish times,
37 and activity relationship. Use available total float before requesting an extension of the
38 Contract Time.

39 6. Comply with requirements in Division 01 Section "Substitution Procedures" if the
40 proposed change requires substitution of one product or system for product or system
41 specified.

42 7. Work Change Proposal Request Form: Use form included in Project Manual.

1 1.3 CHANGE ORDER PROCEDURES

2 A. On Owner's approval of a Work Changes Proposal Request, Architect will issue a Change
3 Order for signatures of Owner and Contractor on AIA Document G701.

4 1.4 CONSTRUCTION CHANGE DIRECTIVE

5 A. Construction Change Directive: Architect may issue a Construction Change Directive on
6 Information Transmission Status part of the Construction Observation Report.. Construction
7 Change Directive instructs Contractor to proceed with a change in the Work, for subsequent
8 inclusion in a Change Order.

9 1. Construction Change Directive contains a complete description of change in the Work. It
10 also designates method to be followed to determine change in the Contract Sum or the
11 Contract Time.

12 B. Documentation: Maintain detailed records on a time and material basis of work required by the
13 Construction Change Directive.

14 1. After completion of change, submit an itemized account and supporting data necessary
15 to substantiate cost and time adjustments to the Contract, if an alternative lump sum has
16 not previously been agreed upon.

17 PART 2 - PRODUCTS (Not Used)

18 PART 3 - EXECUTION (Not Used)

19 END OF SECTION 012600

1 SECTION 017700 - CLOSEOUT PROCEDURES

2 PART 1 - GENERAL

3 1.1 SUMMARY

4 A. Section includes administrative and procedural requirements for contract closeout, including,
5 but not limited to, the following:

6 1. Final completion procedures.

7 1.2 CLOSEOUT SUBMITTALS

8 All of the following documents are available on the NC Office of State Construction Web Site:
9 <http://www.nc-sco.com/documents.aspx>, under the heading "Project Closeout Forms".

10 A. Certificates of Release: From authorities having jurisdiction.

11 B. Certificate of Insurance: For continuing coverage.

12 C. Certificate of Compliance.

13 D. Certificate of Completion.

14 1.3 FINAL COMPLETION PROCEDURES

15 A. Preliminary Procedures: Before requesting final inspection for determining Beneficial
16 Occupancy, complete the following:

17 1. Submit a final Application for Payment according to Section 012900 "Payment
18 Procedures."

19 B. Inspection: Submit a written request for final inspection to determine acceptance. On receipt of
20 request, Architect will either proceed with inspection or notify Contractor of unfulfilled
21 requirements. Architect will prepare a final Certificate for Payment after inspection or will notify
22 Contractor of construction that must be completed or corrected before certificate will be issued.

23 1. Re-inspection: Request re-inspection when the Work identified in previous inspections
24 as incomplete is completed or corrected.

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1 END OF SECTION 017700

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**FAYETTEVILLE STATE UNIVERISTY
FAYETTEVILLE, NORTH CAROLINA**

**SPECIFICATIONS
For
HAZARDOUS MATERIALS ABATEMENT
PRIOR TO THE DEMOLITION
OF
THE BRYANT AND VANCE RESIDECNE HALLS**

Designed and Prepared By:

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July 8, 2021

TABLE OF CONTENTS

TECHNICAL SPECIFICATIONS

Division 1 - General Requirements

Page Number

021043 Project Coordination	1
021092 Codes and Regulations	5
021410 Air Monitoring - Industrial Hygiene Firm Services	7
021503 Temporary Facilities	10
021513 Negative Pressure System	12
021526 Work Area Preparation	12
021560 Worker Protection	13
021562 Respiratory Protection	15
021563 Decontamination Units	16
021711 Project Decontamination	18
021714 Work Area Clearance	19

Division 2 - Site Work

022080 Hazardous Materials Abatement	20
022084 Disposal of Asbestos-Containing Waste Material	25

APPENDICES

Appendix A – Pre-work Asbestos Inspection Checklist.....	Appendix A-1
Appendix B - Decontamination Area Arrangement	Appendix B-1
Appendix C - Drawings	Appendix C-1
Appendix D - Hazardous Materials Inspection Reports	Appendix D-1

SECTION - 021043

PROJECT COORDINATION

1.01 GENERAL

- A. All asbestos abatement contractors will be licensed general contractors in either the specialty interior, building, unclassified or asbestos categories by the North Carolina Licensing Board of General Contractors and limited for the bid amount.
- B. The contractor shall be responsible for inspecting the site prior to bidding to confirm the scope of the work. Any quantities listed by the designer in the plans, specifications or survey are done so as approximations. The actual quantities of asbestos-containing material to be encountered are the responsibility of the contractor.
- C. The contractor shall furnish and is responsible for all costs including, but not limited to: permit fees, containment preparation, labor, materials, services, insurance, bonding, and equipment necessary to carry out the abatement operations and disposal of all asbestos material in accordance with the plans and specifications, the EPA and OSHA regulations, and any applicable state and local government regulations.
- D. The contractor/employer has and assumes the responsibility of proceeding in such a manner that he offers his employees a workplace free of recognized hazards causing or likely to cause death or serious injury. The contractor shall be responsible for performing this abatement and disposal so that airborne asbestos fiber levels do not exceed established levels.
- E. The contractor will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.
- F. The contractor is responsible for all costs, including additional visits, should the designer and/or the industrial hygiene firm determine that the contractor failed a final inspection. Notification and scheduling of the final inspection during the project is the responsibility of the contractor. The contractor will allow a minimum notice of 48 hours unless a different time frame is agreed upon by the designer and the contractor.

1.02 PERSONNEL

- A. Supervisor
 - 1. All supervisors shall be accredited by the Health Hazards Control Unit (HHCU).
 - 2. All supervisors on the project shall have two years experience in the administration and supervision of asbestos abatement projects including work practices, protective measures for building and personnel, disposal procedures, etc.

3. One supervisor shall be provided for every 10 workers inside the containment. A minimum of one supervisor shall be provided per project.
 4. The contractor shall have at least one employee on the job site in either a foreman or supervisor's position who is bilingual in the appropriate languages when employing workers who do not speak fluent English.
 5. A minimum of one supervisor per company shall have attended a 24-hour respiratory protection course.
- B. Worker
1. All workers shall be accredited by the HHCB.
- C. Competent Person
1. A competent person, as defined in the OSHA asbestos standard 29 CFR 1926.1101, employed by the contractor must be outside the work area at all times to monitor activity, ensure containment security, provide information to visitors, and provide access to the work area.
- D. Employees
1. The contractor is responsible for the behavior of workers within his employment. If at any time during the contracted work, any of his employees are judged to exhibit behavior unfitting for the area or judged to be a nuisance by the owner or designer, the contractor shall remove them immediately from the project.
 2. The contractor shall be responsible for compliance with the following concerning employee behavior:
 - a. Under no circumstances is alcohol, drugs or any other type of controlled substances permitted on state property.
 - b. All workers are restricted to the construction project site only.
 - c. All vehicles must be parked in areas prearranged with the owner.
 - d. All workers must conform to the following basic dress code when in public areas of the project confines: long pants, shirts, no tank tops, no shorts, no bare backs.
 - e. The contractor is responsible for disposal of all trash brought on state property by his employees, including drink cans, bottles or other food containers and wrappers.
 3. Failure to adhere to these rules could result in criminal prosecution and/or removal from the State property.

1.03 MEETINGS

- A. Prebid
1. A prebid conference will be held only for the General Contract. All contractors submitting a bid are encouraged to attend, visit the site and ask questions concerning the plans and specifications.
 2. The designer will review the plans and specifications, present required techniques and safeguards for the removal of the asbestos and identify locations of water, electrical sources, etc.

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

1.04 PRE-JOB SUBMITTALS

- A. Submit three complete, bound sets of pre-job submittals to the designer at least 10 days prior to start of work. Work is prohibited until submittal package has been reviewed and approved by designer. A copy of the approved submittals shall be kept in a three-ring binder (project log) by the contractor at the project site in the clean room or in the on-site office of the contractor.
 1. Notifications: Provide copies of Asbestos Permit Application and Notification for Demolition/Renovation (DEHNR 3768), which provide written notice to all required agencies, including North Carolina HHCU. Provide notification letters to local EMS, fire and police departments.
 2. Employee List: Provide copies of lists of supervisors and workers, along with their accreditation and Social Security numbers, to be utilized on the project.
 3. Permits: Provide copies of approval of a waste disposal site in compliance with 40 CFR 61.154.
 4. Medical: Include individually signed and notarized forms by each worker to be utilized on the project documenting that each is actively involved in a company employee medical surveillance program.
 5. Initial Exposure Assessment as required by OSHA 29 CFR 1926.1101.
 6. Respirator Training: Copies of most recent fit testing records, individually signed, for each worker to be utilized on the project.
 7. Any other programs or training as outlined by the OSHA and EPA standards.
 8. A copy of the license of the electrician to be used on the project.
 9. A copy of personnel air monitoring from previous asbestos abatement projects.

1.05 POST-JOB SUBMITTALS

- A. Submit three complete, bound sets of post-job submittals to the designer following the final completion of the work. Requests for final payment will not be approved until the submittal package has been reviewed and approved by the designer.
 1. Affidavits: Contractor's affidavit of payment of debts and claims, affidavit of release of liens, and consent of surety company to final payment.
 2. Manifest: North Carolina Asbestos Waste Shipment Record (DEHNR 3787) receipt from landfill operator which acknowledges the contractor's delivery(s) of waste material. Include date, quantity of material delivered and signature of authorized representative of landfill. Also, include name of waste transporter.

3. Daily Log: A notarized copy of all daily logs showing the following: name, date, entering and leaving time, company or agency represented, reason for entry for all persons entering the work area, employee's daily air monitoring data as required by the OSHA standard and written comments by inspectors, industrial hygienists, designers and visitors.
4. Medical: Worker release forms, asbestos training certification forms and respirator training documentation of all new employees hired during the project.
5. Special Reports: All documents generated under Section 021043.1.06.

1.06 SPECIAL REPORTS

- A. General: Except as otherwise indicated, submit special reports to designer within one day of occurrence requiring special report, with copies to others affected by occurrence. Also keep a copy in the project logbook.
- B. Reporting Unusual Events: When an event of unusual and significant nature occurs at site (examples: failure of negative pressure system, rupture of temporary enclosures), prepare and submit a special report to the designer immediately, listing chain of events, persons participating, response by contractor's personnel, evaluation of results or effects, and similar pertinent information. When such events are known or predictable in advance, advise designer in advance at earliest possible date.

1.07 CONTINGENCY PLAN

- A. Contingency Plan: Prepare a contingency plan for emergencies including fire, accident, power failure, negative pressure system failure, supplied air system failure (if applicable), evacuation of injured persons for both life threatening and non-life threatening, or any other event that may require modification or abridgment of decontamination or work area isolation procedures. Include in plan specific procedures for decontamination or work area isolation. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency. Keep these plans in the on-site office.
- B. Post outside/in clean room of Personnel Decontamination Unit:
 1. Telephone numbers and locations of emergency services including but not limited to, fire, ambulance, doctor, hospital, police, power company, telephone company and the North Carolina HHCU.
 2. A copy of Material Safety Data Sheets (MSDS) for any chemicals used during the asbestos project.
 3. The contractor shall post asbestos signs in each appropriate language as per the OSHA 29 CFR 1926.1101 standard.

SECTION 021092

CODES AND REGULATIONS

1.01 REFERENCE SPECIFICATIONS

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

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

- A. The following regulations published by the Environmental Protection Agency (EPA):
 - 1. "National Emissions Standards for Hazardous Air Pollutants Asbestos," 40 CFR Part 61, Subpart M.
 - 2. "General Provisions," 40 CFR Part 61, Subpart A.
 - 3. "Guidance for Controlling Asbestos-Containing Materials in Buildings" June 1985. (EPA # 560/5-85-024).
 - 4. "Asbestos-Containing Materials in Schools," 40 CFR Part 763, Subpart E including appendices.
- B. The following regulations published by the U.S. Department of Labor, OSHA:
 - 1. "Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules," Title 29, Part 1910, Section 1001 and Part 1926, Section 1101 of the Code of Federal Regulations.
 - 2. "Respiratory Protection," Title 29, Part 1910, Section 134 of the Code of Federal Regulations.
 - 3. Construction Industry, Title 29, Part 1926, of the Code of Federal Regulations.
 - 4. "Access to Employee Exposure and Medical Records," Title 29, Part 1910, Section 20 of the Code of Federal Regulations.
 - 5. "Hazard Communication," Title 29, Part 1926, Section 59 of the Code of Federal Regulations.
 - 6. "Specifications for Accident Prevention Signs and Tags," Title 29, Part 1910, Section 145 of the Code of Federal Regulations.
- C. The following regulations published by North Carolina state agencies:
 - 1. North Carolina Asbestos Hazard Management Program Rules as adopted by 15A NCAC 19C .0600.
 - 2. "North Carolina Occupational Safety and Health Standards for the Construction Industry," 29 CFR Part 1926 as adopted by T13 NCAC 07F .0201, and shipyard T13:07F.0500.
 - 3. North Carolina General Statutes, Chapter 95, 97, 130.

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

1. "Fundamentals Governing the Design and Operation of Local Exhaust Systems," Z9.2-1979.
2. "American National Standard for Respiratory Protection Respiratory Use - Physical Qualifications for Personnel," Z88.6-1984.
3. "Practices for Respiratory Protection," Z88.2-1992.

1.02 NOTICES

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

1. State Agencies

Health Hazards Control Unit
Occupational & Environmental Epidemiology Section
N.C. DHHS
(Regular Mail)
1912 Mail Service Center
Raleigh, N.C. 27699-1912
Telephone: (919) 733-0820

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

2. Local Programs

When work is performed in Buncombe/Haywood, Mecklenburg or Forsyth counties, the air quality programs in these counties must be notified and their regulations shall be adhered to. Addresses of these agencies can be found on page 3 of DEHNR (3768) form. Phone numbers are listed below.

Buncombe/Haywood Counties	(704) 255-5710
Forsyth County	(910) 727-8064
Mecklenburg County	(704) 336-5599

3. Emergency Departments
Notify the local emergency medical services, police and fire departments in writing of the type and scope of work being performed and request these departments make an inspection prior to beginning the work.
4. Licenses
Maintain current licenses for contractor and accreditation for workers and supervisors as required by applicable State or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the work of this contract.
5. A courtesy notification for any amount of asbestos, regulated or non-regulated, to be removed shall be sent to the HHCB 10 working days prior to the start date of the asbestos removal.

SECTION 021410

AIR MONITORING - INDUSTRIAL HYGIENE FIRM

1.01 GENERAL

- A. The designer shall be responsible for the coordination and contracting of an industrial hygiene firm. The owner will pay for the services of the industrial hygiene firm.
- B. Air monitoring shall be done under the direct supervision of a North Carolina accredited supervising air monitor (SAM), except for sampling performed by the contractor to satisfy OSHA requirements.
- C. SAM shall be accredited per the Asbestos Hazard Management Program rules.
- D. Air monitor shall be accredited as per the Asbestos Hazard Management Program rules and work under the direct supervision of a SAM.
- E. The industrial hygiene firm shall submit copies of their N.C. accreditations and documentation on respiratory protection training to the designer prior to the award of the contract.
- F. If specific project activities are assigned to an air monitor, the SAM is expected to be in direct control and responsible for industrial hygiene work completed on the project. The SAM shall approve and sign all air monitoring results performed by the air monitor. The SAM signature must be an original. No rubber stamp signature shall be accepted.
- G. Employees of the HHCU shall have right of entry into the project. The HHCU's SAM shall have final authority over the industrial hygiene firm on the project.

1.02 DESCRIPTION OF WORK

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

- B. At the job site, the industrial hygiene firm is expected to observe, be aware, and comment on general work site conditions and activities as they relate to the specifications and profession of industrial hygiene and make recommendations in writing to the designer and contractor.
- C. The industrial hygiene firm is responsible for overseeing the protection of the environment from contamination, protection of persons in adjacent areas, and assurance that the areas are acceptable for occupancy.
- D. The industrial hygiene firm has the authority to direct the contractor relative to safety and environmental concerns. This includes stopping the work if necessary. All directions and comments made by the industrial hygiene firm to the contractor shall be written with a copy to the designer.
- E. The industrial hygiene firm shall furnish the contractor a copy of his field report within 24 hours of the visit. Copies of field notes and reports of observations shall be kept in project logbook.
- F. The SAM shall review and make comments to the designer on the submittals listed in Section 021043.
- G. The SAM shall approve any change in contractor's respiratory protection. This includes a review of the historical data.
- H. The industrial hygiene firm is to conform to the contractor's schedule and shall respond to necessary changes provided an advance notice is given as outlined in Section 021043.
- I. The industrial hygiene firm's project monitor shall furnish designer and contractor with a pager or mobile phone number where he can be reached quickly at all times.
- J. The industrial hygiene firm shall notify the designer and contractor, in writing, of any failed clearance visits.
- K. At the completion of the project, the industrial hygiene firm shall prepare a report describing the assessment of the project, all air monitoring data, acceptance letters, calibration records, and a description of the project as it proceeded to completion and submit four copies of the report to the designer.

1.03 AIR MONITORING

- A. Ambient Air Monitoring: The purpose of ambient air monitoring by the industrial hygiene firm will be to detect discrepancies in the work area isolation such as:
 - 1. Contamination of the building outside of the work area with airborne asbestos fibers.
 - 2. Failure of filtration or rupture in the negative pressure system.
 - 3. Confirm the work practices established by the contractor and respiratory protection provided for employees are adequate.
- B. Work Area Airborne Fiber Levels: The owner's industrial hygiene firm will monitor airborne fiber levels in the work area. The purpose of this air monitoring will be to detect airborne fiber levels which may challenge the ability of the work

area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne fibers.

- C. Work Area Clearance: To determine if the elevated airborne fiber levels encountered during abatement operations have been reduced to an acceptable level, the industrial hygiene firm will sample and analyze air per Section 01714.
- D. In accordance with AHMB Program Rules, the SAM shall develop an Abatement Project Monitoring Plan which complies with EPA and OSHA analytical criteria and will provide a valid representation of airborne fiber concentrations both inside and outside the work area. This program is not intended to satisfy the contractor's requirement for sampling under the OSHA regulation. All personnel and area sampling conducted by the industrial hygiene firm shall be personally observed. Air sampling pumps shall not be left unattended for extended periods of time.
 - 1. The SAM shall submit a written project-monitoring plan to the designer with a copy to the contractor. The following information shall be required for the submittal.
 - a. The name, address, and telephone number of the industrial hygiene firm.
 - b. The name, address, telephone number and NIOSH's PAT designation and proficiency data for the laboratory analyzing the air samples. Analysis of all samples collected shall be by a laboratory currently proficient in NIOSH's "Proficiency Analytical Testing Program for Laboratory Quality Control" for asbestos. The acceptable sampling and analysis method is NIOSH 7400, latest revision.

Persons performing phase contrast microscopy analysis at the asbestos removal location shall be proficient in the American Industrial Hygiene Association's Asbestos Analyst Registry Program [AAR].
 - c. A proposed air sampling strategy which shall include: a projected number of air samples, locations, the types of air samples to be collected (personal, area, ambient), how the air samples are to be collected (TWA, ceiling, other), the equipment to be used (pumps, calibration equipment, filters, other), and how the samples will be transported to the laboratory.
 - 1. All personal air samples will be collected in such a manner as to comply with OSHA collection and analytical regulations and to provide a valid representation of airborne fiber levels. The samples collected by the industrial hygiene firm on personnel do not satisfy the contractor's responsibility under OSHA.
 - 2. All final area air sampling will comply with all State and Federal requirements in measuring airborne asbestos following an abatement action.

3. Air samples will be analyzed and results made available as per the AHMB Program Rules. Copies of all air sampling results shall be signed by the SAM and a copy posted at the job site. These copies shall include the following: sample number, sample location, activity represented by sample, flow rate, sample time, comments and sample results. A statement will be included on each submission that the requirements of this contract have been met as they apply to the activities of the SAM.
 4. If TWA samples are being collected by the contractor for the purpose of reducing respiratory protection requirements, the industrial hygiene firm shall directly observe the conditions and work practices represented by each sample and make appropriate notes in the bound book on site. The SAM shall review all TWA air-sampling results which are used for reducing respiratory protection requirements before accepting the results.
- E. Supplemental air monitoring may be conducted inside and outside the work area by the HHCU. This supplemental sampling does not fulfill air-monitoring responsibilities required by OSHA, EPA or this contract.
- F. Daily air samples shall be read on site by a North Carolina Accredited Air Monitor rated as proficient in the AAR Program.

SECTION 021503

TEMPORARY FACILITIES

1.01 GENERAL

- A. Provide temporary connection to existing building utilities or provide temporary facilities as required herein or as necessary to carry out the work.
- B. Use qualified tradesmen for installation of temporary services and facilities. Locate, modify and extend temporary services and facilities where they will serve the project adequately and result in minimum interference with the performance of the work.

1.02 WATER SERVICE

- A. Owner shall supply a source of water. Contractor bears all expense of heating and getting water to the work and decontamination areas.
- B. Supply hot and cold water to the decontamination unit in accordance with Section 01563. Hot water shall be supplied at a minimum temperature of 100 degrees Fahrenheit.

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

1.03 ELECTRICAL SERVICE

- A. General: Comply with applicable NEMA, NEC and UL standards and governing state and local regulations for materials and layout of temporary electric service.
- B. Ground Fault Protection: Provide receptacle outlets equipped with ground fault circuit interrupters, reset button and pilot light, for plug-in connection of power tools and equipment.
- C. Provide a weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity and power characteristics to accommodate performance of work during the construction period.
- D. Install temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every area of work.
- E. Provide services of an electrician, on a standby basis, to service electrical needs during the abatement process.
- F. Provide additional power service and distribution service, consisting of individual dedicated 15 amp 120 volt circuits to electrical drops with receptacle outlets equipped with ground fault interrupt protection, color coded for the exclusive use of the industrial hygiene firm.

1.04 FIRST AID

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

1.05 FIRE EXTINGUISHERS

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

1.06 TOILET FACILITIES

- A. Provide temporary toilet facilities to be used by contractor's employees.

1.07 PARKING

- A. Park only in areas designated by the owner.

1.08 BUILDING SECURITY

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

1.09 STORAGE

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

SECTION 021513

NEGATIVE PRESSURE SYSTEM

1.01 GENERAL

- A. High efficiency particulate air (HEPA) filter exhaust systems equipped with new HEPA filters for each project shall be used. Exhaust equipment and systems shall comply with ANSI Z9.2-79 and used according to manufacturer's recommendations.
- B. A system of HEPA-equipped air filtration devices shall be configured so that a pressure differential is established between the work area and the surrounding area (-0.02 to -0.04" water column). A continuous chart-recorded manometer shall be used to confirm this condition.
- C. Additional air filtration devices shall be provided inside the work area for emergency standby as well as for circulation of dead air spaces.
- D. The pressure differential is maintained at all times after preparation is complete and until the final visual inspection and air tests confirm the area is clean and acceptable for occupancy and the designer confirms verbally with written follow-up to discontinue the use of the negative pressure system.
- E. Air shall be exhausted outside. Any variations must be approved by the HHCUC.
- F. The contractor shall check daily for leaks and log his checks in the bound logbook. This includes checks internal to air-moving devices.
- G. There shall be a minimum of four air changes per hour in any containment.

SECTION 021526

WORK AREA PREPARATION

1.01 GENERAL

- A. Before work begins in an area, a decontamination unit must be in operation as outlined in Section 021563. The decontamination unit shall insure that the abatement work area is completely isolated from other parts of the building.
- B. Temporary facilities shall be addressed as outlined in Section 021503.
- C. The contractor shall wet up a work area, load out, and decontamination area as shown in the plans and specifications. Any variations must be approved by the designer. The decontamination facility outside of the work area shall consist of a change room, shower room, and equipment room as described in Section 01563.

- D The contractor shall wet clean and/or HEPA vacuum all items and equipment in the work area suspected of being contaminated with asbestos, but not in direct contact with the asbestos material and either secure these items in place with polyethylene sheeting or have them removed from the work area.
- E. Critical Barriers: The contractor shall thoroughly seal the work area for the duration of the work. The sealant materials used shall have appropriate fire ratings.
- F. The floors will have two layers of 6-mil (minimum) polyethylene plastic sheeting with joints overlapped 24 inches and taped securely. Plastic shall be carried up walls a minimum of 12 inches and secured.
- G. The walls will have one layer of 4-mil (minimum) polyethylene plastic sheeting with joints lapped 24 inches and taped securely. Plastic shall be lapped over floor coverings and taped securely.
- H. Floors and walls shall be installed in such a manner that they may be removed independently of the critical barriers.
- I. Entrances and exits from the work area will have triple barriers of polyethylene plastic sheeting so that the work area is always closed off by one barrier when workers enter or exit.
- J. No water may be left standing on the floor at the end of the workday.
- K. The contractor shall establish and mark emergency and fire exits from the work area. Emergency procedures shall have priority over established decontamination entry and exit procedures. Audible and visible fire and emergency evacuation alarms shall be installed so as to be heard and seen throughout the entire work area.
- L. Integrity of these seals shall be regularly checked and maintained by the contractor.
- M. After work area preparation, the contractor shall notify the designer verbally with written follow-up that he is ready for a prework inspection.
- N. The Contractor shall take all necessary measures to prevent damage of the interior surfaces inside and outside the work area. The Contractor shall be responsible for any and all damages inside or outside the work area caused by the asbestos abatement operations including water damage, contamination, construction of the containment, or any other activity.

SECTION 021560

WORKER PROTECTION

1.01 GENERAL

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

- B. Each time the work area is entered the contractor shall require all persons to remove all street clothes in the changing room of the personnel decontamination unit and put on new disposable coverall, new head cover, and a clean respirator. Proceed through shower room to equipment room and put on work boots.
- C. Workers shall not eat, drink, smoke, chew gum or chew tobacco in the work area, the equipment room, the load out area, or the cleanroom.

1.02 WORKER TRAINING

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

1.03 MEDICAL EXAMINATIONS

- A. Provide medical examinations for all workers. Examination shall, as a minimum, meet OSHA requirements as set forth in 29 CFR 1926.

1.04 PROTECTIVE CLOTHING

- A. Provide disposable full-body coveralls and disposable head covers and require that they be worn by all workers in the work area. Provide a sufficient number for all required changes, for all workers in the work area.
- B. Boots: Provide work boots with non-skid soles and, where required by OSHA, foot protection for all workers.
- C. Gloves: Provide work gloves to all workers and require that they be worn at the appropriate times. Do not remove gloves from work area. Dispose of work gloves as asbestos-contaminated waste at the completion of the project.

1.05 ADDITIONAL PROTECTIVE EQUIPMENT

- A. If required, powered air purifying respirators (PAPR's) with replaceable HEPA filters, disposable coveralls, head covers and footwear covers shall be provided by the contractor for the owner, the designer, Industrial hygiene firm and other authorized representatives who may inspect the job site.

1.06 DECONTAMINATION PROCEDURES

- A. Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the work area:
 - 1. Remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the equipment room.
 - 2. Still wearing respirators, proceed to showers. Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator to avoid asbestos fibers while showering. The following procedure is required as a minimum:
 - a. Thoroughly wet body including hair and face.

- b. With respirator still in place thoroughly wash body, hair, respirator face piece, and all exterior parts of the respirator.
 - c. Take a deep breath, hold it and/or exhale slowly, completely wet hair, face and respirator. While still holding breath, remove respirator and hold it away from face before starting to breathe.
 - d. Carefully wash face piece of respirator inside and out.
 - e. Shower completely with soap and water; rinse thoroughly.
 - f. Rinse shower room walls and floor prior to exit.
 - g. Proceed from shower to changing (clean) room and change into street clothes or new disposable work items.
3. After showering, each employee shall inspect, clean and repair his respirator as needed. The respirator shall be dried, placed in a suitable storage bag and properly stored.

SECTION 021562

RESPIRATORY PROTECTION

1.01 DESCRIPTION OF WORK

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

1.02 GENERAL

- A. Provide workers with personally issued and marked respiratory equipment approved by NIOSH and MSHA and suitable for the asbestos exposure level in the work areas according to OSHA Standard 29 CFR 1926.1101 and other possible contaminants employees might be exposed to during the project.
- B. Provide respiratory protection from the time the first operation involved in the project requires contact with asbestos-containing materials (including construction of decontamination units, construction of airtight barriers/barricades, and placing of plastic sheeting on walls) until acceptance of final air clearance test results by the industrial hygiene firm.
- C. The minimum respiratory protection for the project during friable gross removal shall be powered air-purifying respirators (PAPR). The minimum respiratory protection for the glovebag removal shall be half-face negative pressure respirator with replaceable HEPA filters.
- D. The designer may, under certain circumstances, allow the contractor to use a half-face respirator with replaceable HEPA filters during the final cleaning phase.

However, the eight-hour TWA air sampling data must document the exposure level, and the SAM must write a letter to the designer allowing the contractor to reduce respiratory protection.

- E. Respirator fit testing shall be performed as a minimum at the beginning of the project, at any change in respiratory protection equipment, and at any time during the project if requested by the employee or SAM. Fit testing is to be performed by one of the methods listed in the 29 CFR 1926.1101, Appendix C.
- F. If supplied air respirators are used, the contractor shall provide a minimum of Grade "D" breathing air as set forth in the Compressed Gas Association's "Commodity Specifications for Air," G-7.1. The contractor shall test for Grade "D" breathing air initially and daily thereafter. Daily testing is not needed if the contractor has an air purification system that has CO and organic purging capabilities as well as a continuous CO monitor and alarm calibrated at 10 ppm. The system must be calibrated at least once a week or when it is moved.
- G. Provide emergency backup air supply, egress SCBA or egress HEPA filters for each worker in work area at all times when Type-C (supplied air) respirators are required. Breathing air system shall provide one hour of reserve air, calculated for maximum crew size for emergency evacuation.
- H. Where Type C respirators are utilized, the contractor is required to have an employee in the vicinity of the source of air. The contractor shall take into account the location of the fresh air intake to ensure no pollutant source is in the vicinity. The audible alarm shall be located where the employees inside and outside containment can hear the alarm.
- I. Do not allow the use of single-use, disposable or quarter-face respirators for any purpose.
- J. The contractor may submit a new exposure assessment (as per 29 CFR 1926.1101) to the SAM with a request to downgrade to less protective respirators. The SAM will make a recommendation to the designer, who will issue a decision in writing to the contractor approving or denying his request. If the contractor disagrees with the decision, then the representative air sampling data may be reviewed by the HHCB for a final decision.

SECTION 021563

DECONTAMINATION UNITS

1.01 DESCRIPTION OF WORK

- A. Provide that the personnel decontamination unit be the only means of ingress and egress for the work area. Require that all materials exit the work area through the decontamination unit. Contractor shall comply with 29 CFR 1926.1101, specifically paragraph (j) Hygiene facilities and practices for employees.

1.02 GENERAL

Provide separate personnel decontamination units and equipment/loadout decontamination units when practical.

A. Personnel Decontamination Unit

1. Provide a Personnel Decontamination Unit consisting of a serial arrangement of connected rooms or spaces, changing room, shower room, equipment room. Each shall be separated by a minimum of three curtain doorways. Require all persons without exception to pass through this decontamination unit for entry into and exiting from the work area for any purpose. Do not allow parallel routes for entry or exit. Do not remove equipment or materials through Personnel Decontamination Unit.
2. Provide temporary lighting within decontamination units as necessary to reach an adequate lighting level.
3. Maintain floor of changing room dry and clean at all times. Do not allow the overflow water from the shower to escape the shower room.
4. Damp wipe all surfaces twice after each shift change with a disinfectant solution.
5. Provide hot and cold water, drainage and standard fixtures including an elevated showerhead as necessary for a complete and operable shower. A water hose and bucket is not an acceptable shower.
6. Arrange water shut off and drain pump operation controls so that a single individual can shower without assistance from either inside or outside of the work area.
7. Pump shower wastewater to drain. Provide 20-micron and 5-micron wastewater filters in line to drain. Change filters daily or more often if necessary.
8. Visual Barrier: Where the decontamination area is immediately adjacent to and within view of occupied areas, provide a visual barrier of opaque plastic sheeting so that worker privacy is maintained and work procedures are not visible to building occupants. Where the area adjacent to the decontamination area is accessible to the public, construct a solid barrier on the public side of the sheeting to protect the sheeting. Construct barrier with wood or metal studs, max. 16 inches on center, covered with minimum 3/8-inch plywood.

B. Decontamination Unit Contamination:

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

SECTION 021711
PROJECT DECONTAMINATION

1.01 GENERAL

- A. Carry out a first cleaning of all surfaces of the work area including plastic sheeting, tools, scaffolding and/or staging by use of damp-cleaning and mopping and/or a high efficiency particulate air (HEPA) filter vacuum until there is no visible debris from removed materials or residue on plastic sheeting or other surfaces. Do not perform dry-dusting or dry-sweeping.
- B. Equipment shall be cleaned and all contaminated materials removed before removing polyethylene from the walls and floors.
- C. The contractor shall replace all prefilters and clean the inside and outside of the HEPA exhaust units.
- D. After polyethylene sheets have been removed from walls and floors, the contractor shall clean all surfaces in the work area with amended water and/or HEPA-filtered vacuum.
- E. After cleaning the work area, the contractor shall allow the area to thoroughly dry and then wet-clean and/or HEPA vacuum all surfaces in work area again.
- F. At the completion of the cleaning operation, the contractor's supervisor shall perform a complete visual inspection of the work area to ensure that the work area is dust- and fiber-free. If the supervisor believes he is ready for a final project decontamination inspection, he shall notify the designer.
- G. The designer shall contact the industrial hygiene firm and advise the firm of the final project decontamination inspection requested by the contractor.
- H. Final project decontamination inspection includes the visual inspection and air monitoring clearance.
- I. Visual inspection for acceptance shall be performed after all areas are dry.
- J. The industrial hygiene firm shall perform the final visual inspection and conduct the final air clearance. Any discrepancies found shall be documented in the form of a punch list.
- K. Final air sampling shall not commence until the visual inspection is completed and passed.
- L. If the industrial hygiene firm finds that the work area has not been adequately decontaminated, cleaning and/or air monitoring shall be repeated at the contractor's expense, including additional industrial hygiene fees, until the work area is in compliance.
- M. After the work area is found to be in compliance, all entrances and exits shall be unsealed and the plastic sheeting, tape and any other trash and debris shall be disposed of in sealable plastic bags (6 mil minimum) and disposed of as outlined in Section 021084.
- N. All HEPA unit intakes and exhausts shall be wrapped with six-mil polyethylene before leaving the work area.

- O. After the industrial hygiene firm has approved the final project decontamination and the contractor has completed the tear down for occupancy by others, the designer shall perform the project final inspection as outlined in the general conditions.
- P. Any residual asbestos that may be present after removing critical barriers, which in the designer's judgment, should have been cleaned during the precleaning phase prior to installing critical barriers, shall be cleaned and cleared at the contractor's expense.
- Q. There shall be appropriate seals totally enclosing the inspection area to keep it separate from clean areas or other areas where abatement is or will be in progress. Once an area has been accepted and passed air tests, loss of the critical barrier integrity or escape of asbestos into an already clean area shall void previous acceptance and tests. Additional visual and final air clearance sampling shall be required at the contractor's expense.

SECTION 021714

WORK AREA CLEARANCE

1.01 GENERAL

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

1.02 FINAL CLEARANCE TESTING

- A. After the second cleaning operation and after the area is completely dry, the following procedure test shall be performed:
 - 1. A final visual inspection shall be conducted by the industrial hygiene firm. The inspection shall be conducted following the guidelines set forth in the American Society for Testing and Materials, Standard Practices for Visual Inspection of Asbestos Abatement Projects, Designation: E1368.90. If the work area is found visibly clean, air samples and soil samples will be collected by the industrial hygiene firm.
 - 2. Disruptive air sampling will be performed for air clearance.
 - 3. The samples will be analyzed using TEM Methods where applicable (friable abatement). Clearance criteria shall be the average of the five inside containment samples shall be the less than 70 structures per millimeter squared.
 - 4. The industrial hygiene firm shall immediately report the final air sampling clearance results to the designer
 - 5. The use of the negative pressure system may be discontinued after the industrial hygiene firm instructs the contractor that he has passed the final project decontamination inspection.

SECTION 022080

HAZARDOUS MATERIALS ABATEMENT

1.01 GENERAL

- A. Prior to starting asbestos removal, the contractor's equipment, work area and decontamination units will be inspected and approved by the designer.
- B. All loose asbestos material removed in the work area shall be adequately wet, bagged, sealed and labeled properly before personnel breaks or end of shift.
- C. All plastic sheeting, tape, cleaning material, clothing and all other disposable material or items used in the work area shall be packed into sealable plastic bags (6 mil minimum) and treated as contaminated material.
- D. All material shall be double-bagged.
- E. All excess water (except shower water) shall be combined with removed material or other absorptive material and properly disposed of as per EPA regulations. Contractor shall not place water in storm drains, onto lawns, or into ditches, creeks, streams, rivers or oceans.

1.02. SCOPE OF WORK

This project is for the removal of Hazardous Materials prior to the demolition of The Bryant and Vance Residence Halls of Fayetteville State University, Fayetteville, North Carolina. The asbestos containing materials to be removed include floor tile and mastic, door caulking, thermal system insulation, and light heat shields. Other hazardous materials in the building include lead-based paints, refrigerant gasses, and fluorescent lights and ballasts.

The Hazardous Materials Inspection Reports are included with this specification.

Bryant Residence Hall

Asbestos Containing Materials

Flooring Materials

The asbestos containing 9" x 9" floor tile and mastic found throughout all floors of the Bryant Residence Hall is to be removed. Most of the 9" x 9" floor tile is covered with non-asbestos 12" x 12" floor tile. The floor tile is 6% chrysotile asbestos. The mastic is 8% chrysotile asbestos. There is approximately 30,200 square feet of flooring materials to be removed. All floor tiles and mastic are currently non-friable.

Door Caulking

The caulking used around all exterior doors is asbestos containing and to be removed. The caulking is 3% chrysotile asbestos. There are approximately 13 exterior doors around the building.

Lead Based Paints

The Lead-Based Paint (or lead containing components) identified at or above the federal regulatory level of 1.0 mg/cm² in the Bryant Residence Hall are the metal stair components on the building exterior, the porcelain sinks, and the metal structural beams.

Fluorescent Lights

All fluorescent and HID lights will be properly disposed of by the contractor. Demolition of Existing Mercury Containing Lamps: Specification for lamp disposal shall comply with NC General Statutes G.S. § 130A-310.60 which applies to all state and local agencies managing discarded mercury containing lamps, inclusive of those generated through construction/renovation. A statewide contract has been adopted (<https://ncadmin.nc.gov/926B>) in response to this general statute that is mandatory for state departments, most state agencies, and higher education institutions (except under prescribed conditions).

PCB Ballasts

All light ballasts not specifically labeled “No PCB’s” will be assumed to be PCB containing and disposed of in the proper manner. The contractor shall inspect all ballasts removed during the work of this project.

Refrigerant Gasses

The refrigerant gasses in the air conditioning system, water fountains, any other mechanical components and appliances in the building are to be removed and/or recycled prior to removal. The refrigerant shall be removed by properly trained and accredited personnel and dispose of and/or recycled properly.

Vance Residence Hall

Asbestos Containing Materials

Flooring Materials

The asbestos containing 9" x 9" floor tile and mastic found throughout all floors of the Vance Residence Hall is to be removed. The floor tile is 6% chrysotile asbestos. The mastic is 5% chrysotile asbestos. There is approximately 38,000 square feet of flooring materials to be removed. All floor tiles and mastic materials are currently non-friable.

Thermal System Insulation

The linear pipe insulation used above the ceilings in First Floor and Lounge area is asbestos containing is asbestos containing and to be removed. The fittings used in the same area are also asbestos containing and to be removed. Both materials may also be found in other areas of the building such as pipe chases and if found, is to be removed. The linear pipe insulation is 12% amosite and 3% chrysotile asbestos. The fittings are 5% chrysotile asbestos. There is approximately 350 linear feet of pipe insulation and 600 elbows and fittings.

Light Shield

The light shields used in Office Suite 104 are asbestos containing and to be removed. The light shields are 50-60% chrysotile asbestos. There are approximately 2 of these lights.

Lead Based Paints

The Lead-Based Paint (or lead containing components) identified at or above the federal regulatory level of 1.0 mg/cm² in the Vance Residence Hall are the metal exterior walkway columns, metal components of the exterior stairs, white porcelain sinks, and the metal structural beams.

Fluorescent Lights

All fluorescent and HID lights will be properly disposed of by the contractor. Demolition of Existing Mercury Containing Lamps: Specification for lamp disposal shall comply with NC General Statutes G.S. § 130A-310.60 which applies to all state and local agencies managing discarded mercury containing lamps, inclusive of

those generated through construction/renovation. A statewide contract has been adopted (<https://ncadmin.nc.gov/926B>) in response to this general statute that is mandatory for state departments, most state agencies, and higher education institutions (except under prescribed conditions).

PCB Ballasts

All light ballasts not specifically labeled “No PCB’s” will be assumed to be PCB containing and disposed of in the proper manner. The contractor shall inspect all ballasts removed during the work of this project.

Refrigerant Gasses

The refrigerant gasses in the air conditioning system, water fountains, any other mechanical components and appliances in the building are to be removed and/or recycled prior to removal. The refrigerant shall be removed by properly trained and accredited personnel and dispose of and/or recycled properly.

It is the Contractor’s responsibility to make measurements of materials prior to bidding on the project. The expressed intent of this specification is the removal of all asbestos containing and other hazardous materials included in this specification.

Waste manifests for all hazardous materials shall be provided to the Owner as a record of disposal.

- A. The Contractor shall place 4-mil poly on the walls and ceiling. The containment shall be placed under negative pressure using a negative-pressure, air-filtration system in accordance with Section 021513. A portable personnel decontamination unit shall be set up in accordance with Section 021563. The containment shall be built of a rigid frame of wood or steel. Sections of the containment placed outside of the building or on the walkways shall be structurally sound to prevent damage by weather during the time of the work to be performed. The construction plans for the containment shall be sent to the designer for review prior to construction. Review of the containment construction plans does not relieve the contractor of responsibility for the integrity of the containment.
- B. The Contractor shall thoroughly wet the ACM to satisfaction to be removed prior to cutting in order to reduce fiber dispersal into the air. Accomplish wetting by a fine spray (mist) of amended water or removal encapsulant. Saturate material

- sufficiently to wet to the substrate without causing excess dripping. Allow time for amended water or removal encapsulant to penetrate material thoroughly.
- C. Carefully remove saturated ACM in small sections from a given area. Do not allow material to dry out. As it is removed, simultaneously pack material while still wet into proper disposal bags. Twist neck of bags, bend over, and seal with minimum of three wraps of duct tape.
 - D. All areas shall be wet wiped and cleaned free of all debris. After final cleaning and final visual inspection, the Contractor shall encapsulate the ceiling and floor where asbestos has been removed with a slightly milky-colored encapsulant approved by the manufacturer for the use as an asbestos encapsulant. Coverage shall be as recommended by the manufacturer.
 - E. If the floor tile is to be removed in a non-friable manner, a work area containment and decontamination system will not be required. At a minimum, barrier tape, warning signs, critical barriers, and HEPA filtered negative air exhaust shall be used. Any non-friable method must be approved in advance by the designer.
 - F. If the Contractor uses a mastic remover, then the remover shall meet the following criteria:
 - 1. The mastic remover shall not create a hazardous waste as a byproduct.
 - 2. The product shall be “low to no odor”.
 - 3. The product shall not contain carcinogenic or chlorinated hydrocarbons.
 - 4. The product shall not be flammable or contain flammable components.
 - H. The Contractor shall take all necessary precautions to prevent the spread of the mastic remover from areas outside of the containment. The Contractor shall be responsible for any damages to the walls and surfaces inside or outside the containment area. The Contractor shall be responsible for returning any walls, surfaces, or other items splattered, damaged, or soiled back to original condition.
 - I. The Contractor shall add to the used mastic removal solution cat litter, oil-sorb, or other material approved by the Asbestos Designer so that no free-standing liquid will be left in waste disposal bags. After the Contractor completes the asbestos mastic removal, the Contractor shall use a cleaning solution to neutralize the mastic remover and mop and rinse the floor so that no residue of the mastic remover or mastic may be left on the floor surface. The cleaner shall be compatible with all typical mastics that may be used after the abatement is complete. The cleaner shall meet all the criteria required of the mastic remover listed above.
 - J. If the mastic is removed using mechanical means, including buffers, then the removal shall be considered friable.

SECTION 022084

DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

1.01 GENERAL

- A. All asbestos materials and miscellaneous contaminated debris shall be properly sealed and protected, and the loadout vehicle/dumpster shall be locked, while located on the facility site and then transported to a predesignated disposal site in accordance with 40 CFR 61.150 and DOT 49 CFR Parts 100-399.
- B. An enclosed vehicle will be used to haul waste material to the disposal site. No rental vehicles or trailers shall be used. Vehicle selection, vehicle covers and work practices shall assure that no asbestos becomes airborne during the loading, transport and unloading activity, and that material is placed in the waste site without breaking any seals.
- C. Waste disposal polyethylene bags (6 mil) and containers, non-porous (steel/plastic) drums or equivalent, with labels, appropriate for storing asbestos waste during transportation to the disposal site shall be used. In addition to the OSHA labeling requirements, all containers shall be labeled with the name of the waste generator and the location at which the waste was generated.
- D. The contractor shall transport the containers and bags of waste material to the approved waste disposal site. The sealed plastic bags shall be placed into the burial site unless the bags have been broken or damaged. Upon the landfill's approval, damaged bags shall be left in the non-porous containers and the entire contaminated package shall be buried. Uncontaminated containers may be reused.
- E. Workers loading and unloading the asbestos will wear respirators and disposable clothing when handling material. Asbestos warning signs shall be posted during loading and unloading of asbestos waste.
- F. The contractor shall use the HHCU's Waste Shipment Record for disposal records as per 40 CFR 61.150 and distribute a copy of all waste shipment records to the designer after the completion of the project.

Appendix A

APPENDIX A

PREWORK ASBESTOS INSPECTION CHECKLIST

Name of State Facility: _____

Project Name: _____

Project ID Number: _____

Date of Inspection: _____ Pass: _____ Fail: _____

I. DOCUMENTS	YES	NO
A. Asbestos Removal Permit/NESHAP Notification	_____	_____
B. Accreditation Documents for Workers & Supervisors	_____	_____
C. Asbestos Plans and Specifications	_____	_____
D. Air Monitoring Data	_____	_____
E. Waste Shipment Records	_____	_____
F. Sign-in Sheets and Bound Book for Comments	_____	_____
G. Calibration Record for Grade "D" Air	_____	_____
H. Items listed in Section 01043 of Specification	_____	_____
II. PPE SUPPLIES		
A. Tyvek Clothing	_____	_____
B. Rubber Boots	_____	_____
C. Respirators with HEPA Filters	_____	_____
III. CLEAN ROOM		
A. Entry Curtains	_____	_____
B. Emergency Phone Numbers Posted	_____	_____
C. First Aid Kit	_____	_____
D. Asbestos Signs	_____	_____
E. Decontamination Procedures Posted	_____	_____
F. Fire Extinguisher	_____	_____
IV. SHOWER ROOM		
A. Polyethylene Curtains	_____	_____
B. Hot/Cold Water & Operational	_____	_____
C. Soap & Towels	_____	_____
D. Waste Water Filter Pump Operational	_____	_____

- E. Extra Five Micron Size Filters _____
- F. Filtered Waste Water to Sanitary Sewer _____

V. **WORK AREA** **YES** **NO**

- A. Removable Items Out of Area _____
- B. Non-removable Items Protected _____
- C. Critical Barriers Installed _____
- D. Polyethylene Curtains _____
- E. Polyethylene on Walls/Floors as Specified _____
- F. HVAC off _____
- G. Air Filtration Devices in Place and Operational _____
- H. Air Exhausted to Outside _____
- I. Electricity Locked and Tagged Out _____
- J. Temporary Power Installed with GFCI _____
- K. Fire Extinguishers _____
- L. Emergency and Fire Exits Marked _____
- M. Audible Alarms Operational _____
- N. Toilet Available _____

VI. **EQUIPMENT**

- A. Safety Equipment _____
- B. HEPA Vacuums _____
- C. Waste Disposal Bags _____
- D. Airless Sprayer with Water Source _____
- E. Cleaning Equipment _____
- F. Glove Bags _____
- G. Emergency Power Generator (if required) _____
- H. Temporary Lighting _____

VII. **OTHER**

- A. _____
- B. _____
- C. _____
- D. _____

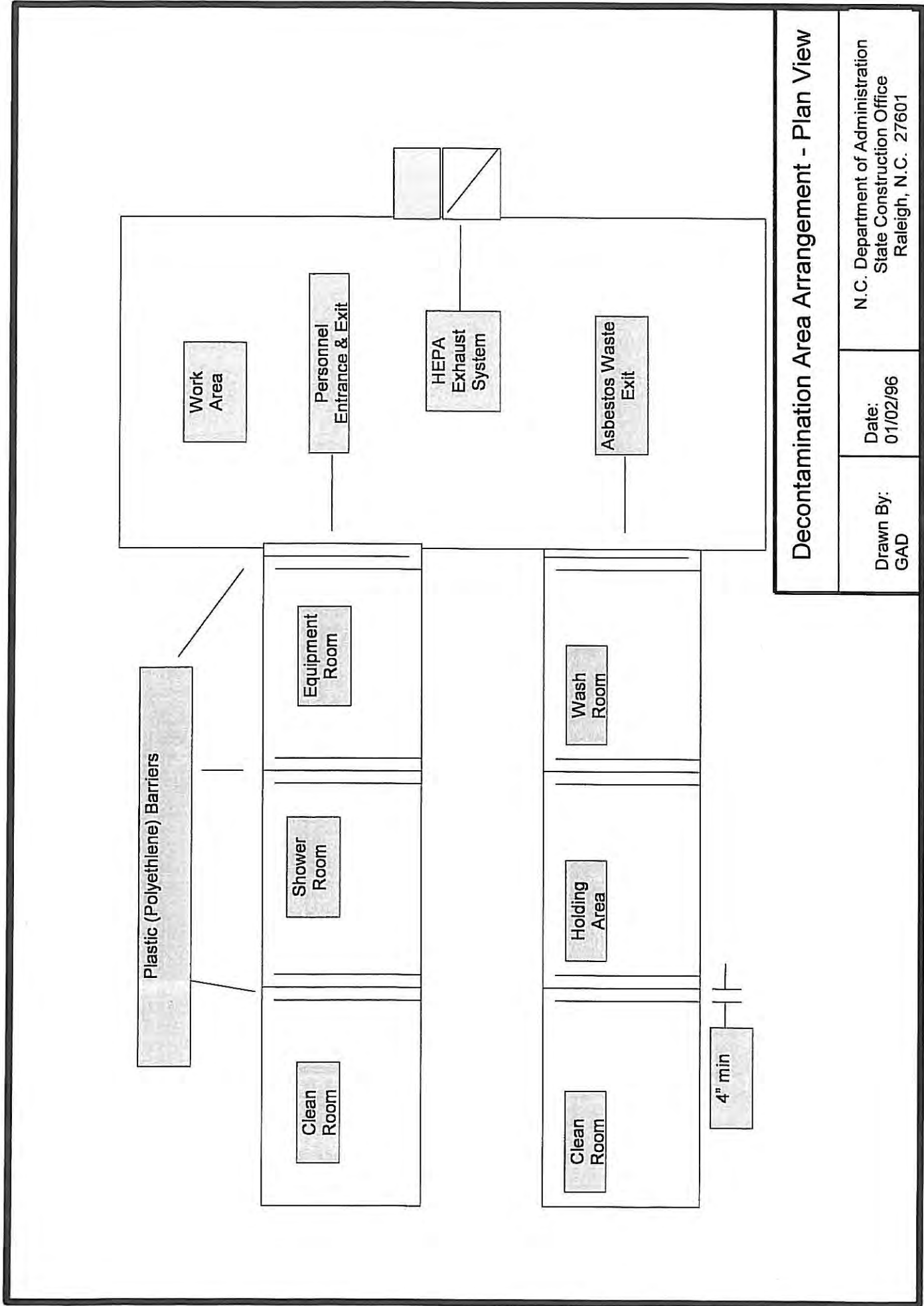
Asbestos Design Consultant

Date

Asbestos Contractor's Representative

Date

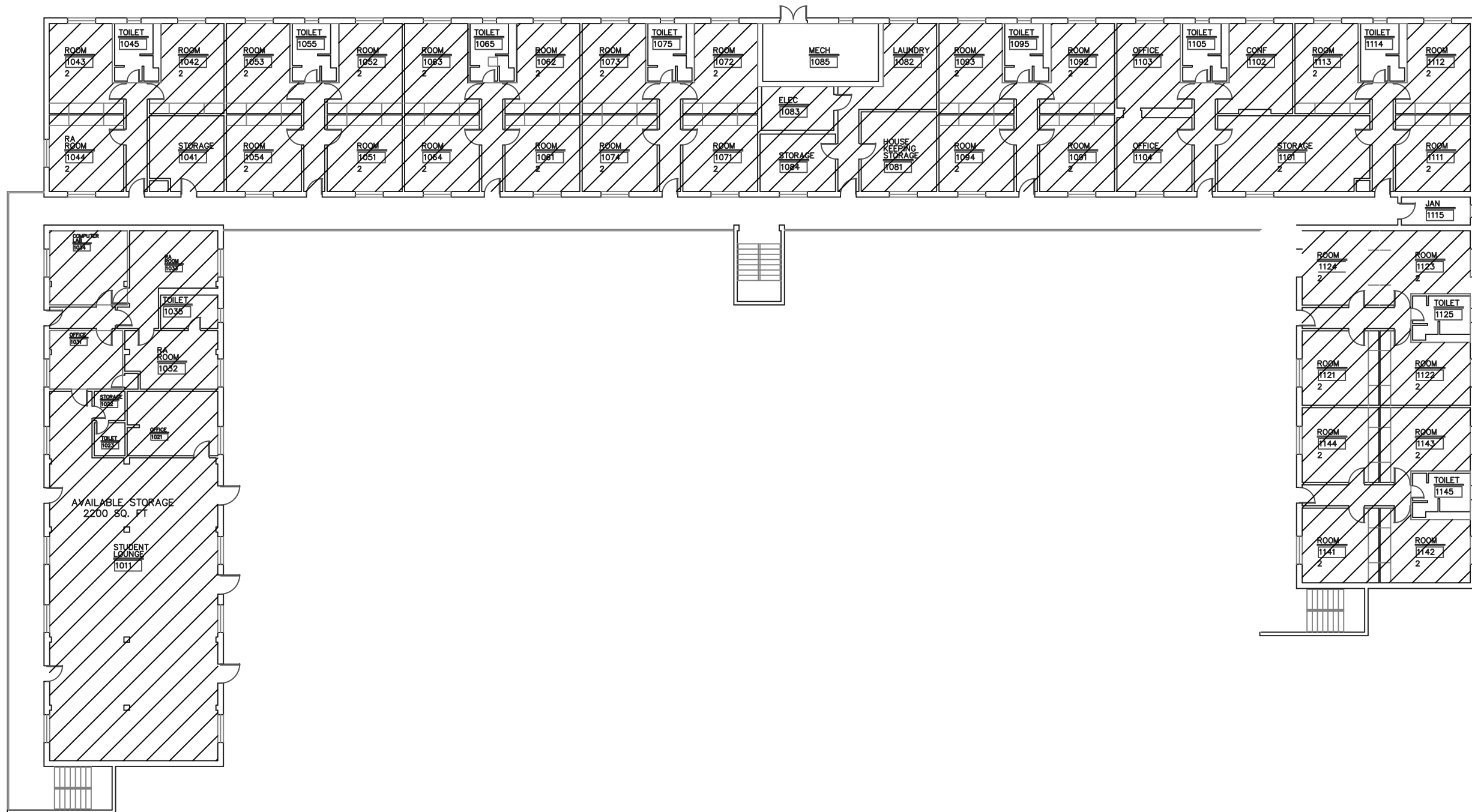
Appendix B



Decontamination Area Arrangement - Plan View

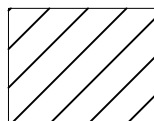
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Appendix C



Notes:

1. All floor tile and mastic is to be removed.
2. The pipe insulation used on the First Floor is asbestos containing and to be removed. The material is found in the Lounge, above ceilings, and in wall cavities.
3. Two asbestos containing light shields are found in the Suite 104 office. The shields are friable and to be removed.



This hatch indicates the location of asbestos containing floor tile and mastic to be removed.

Fayetteville State University
Fayetteville, North Carolina

Vance Hall Demolition
First Floor Asbestos Abatement Locations

SCALE: NTS

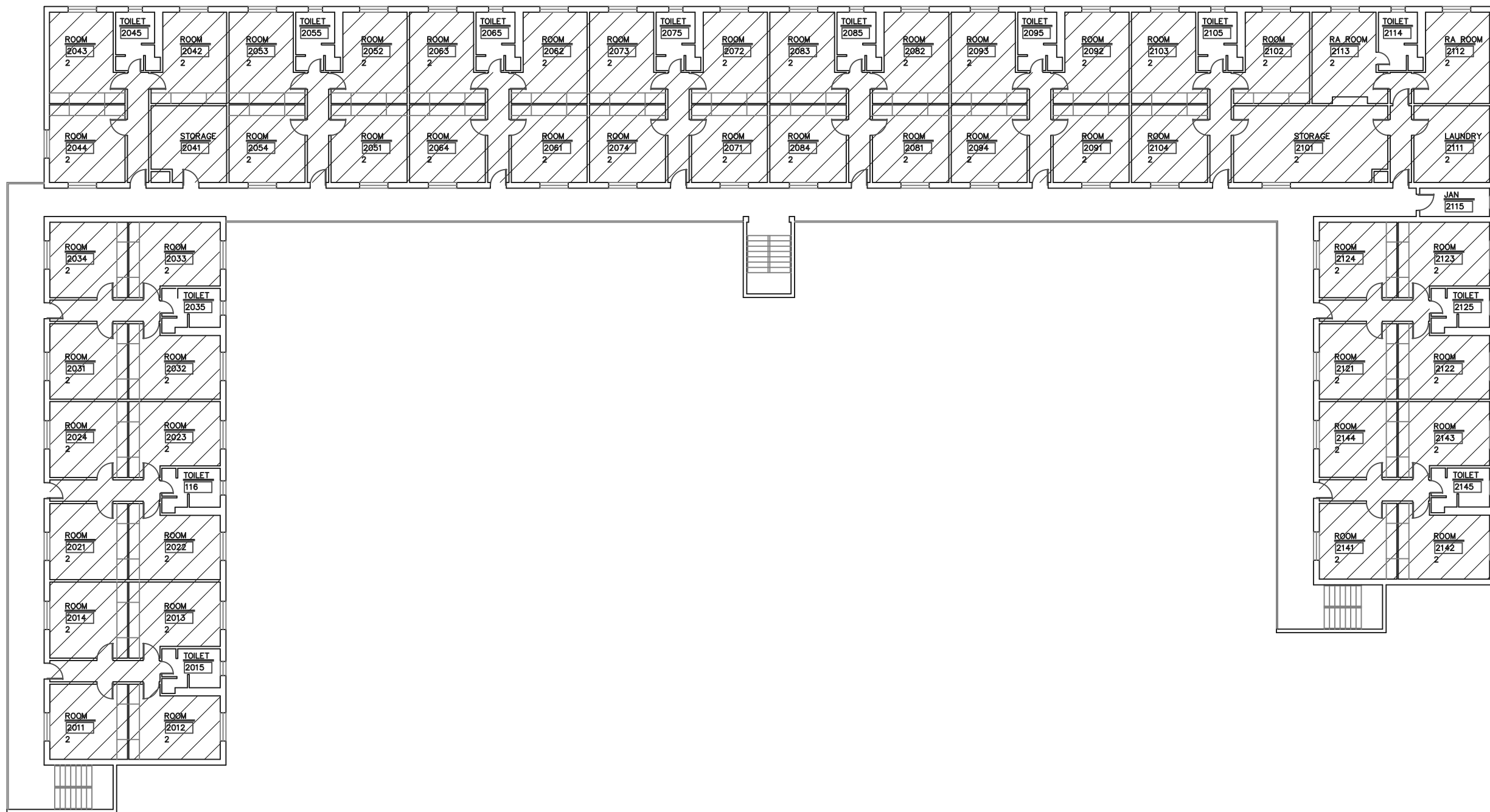
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DATE: 6/24/21

Affinity Energy & Environmental Engineers, PA

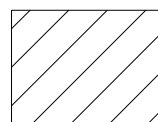
PO Box 2261
Asheville, NC 28802
828-393-8182

13044-01-01




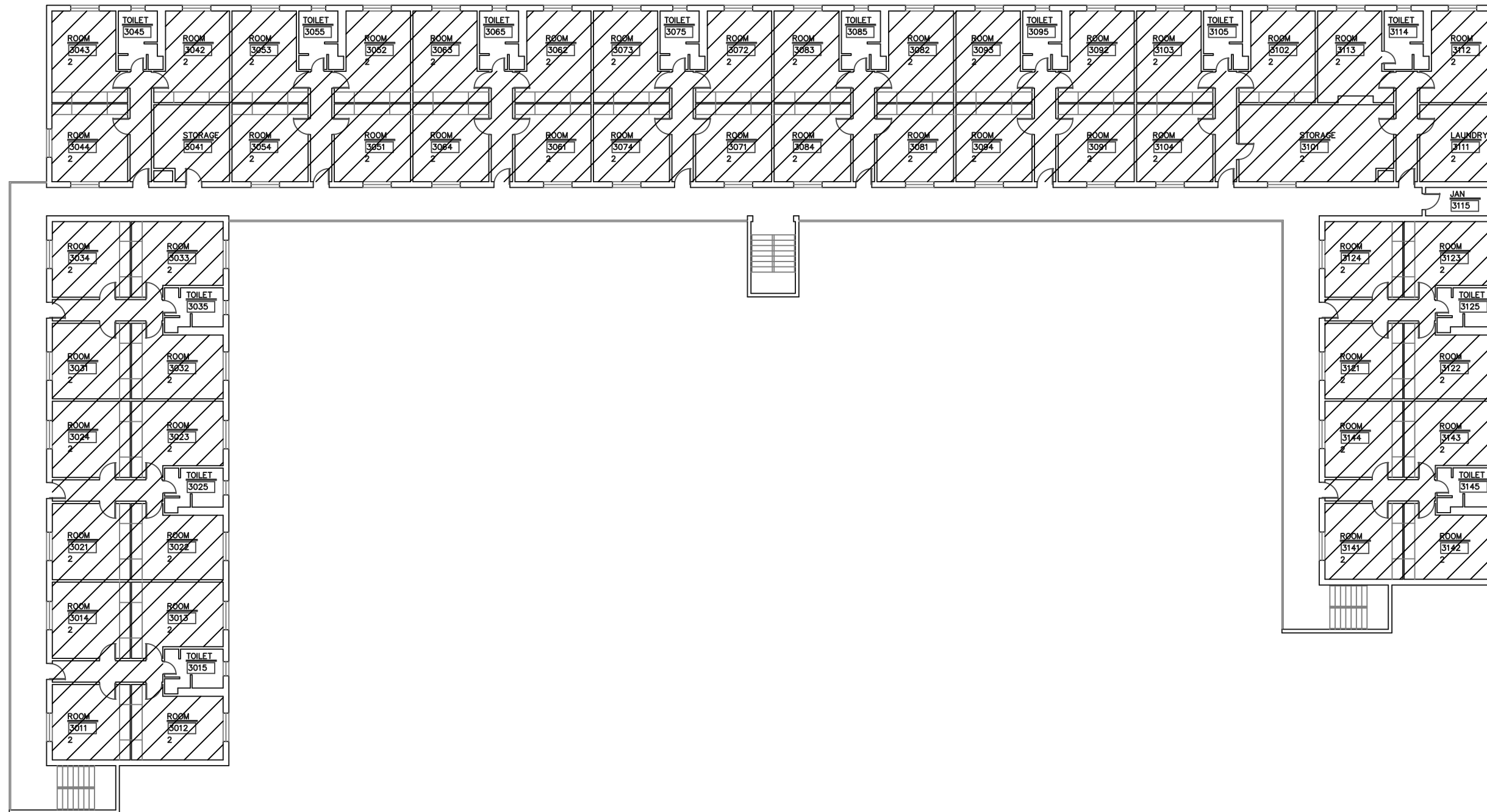
Notes:

1. All floor tile and mastic is to be removed.
2. The pipe insulation used on the First Floor is asbestos containing and to be removed. If any of the same material is found on other floors in areas such as wall cavities, the material is also to be removed.



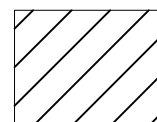
This hatch indicates the location of asbestos containing floor tile and mastic to be removed.

Fayetteville State University Fayetteville, North Carolina	
Vance Hall Demolition Second Floor Asbestos Abatement Locations	
SCALE: NTS	 PO Box 2261 Asheville, NC 28802 828-393-8182
Drawn By: DWH	
DATE: 6/24/21	13044-02-01




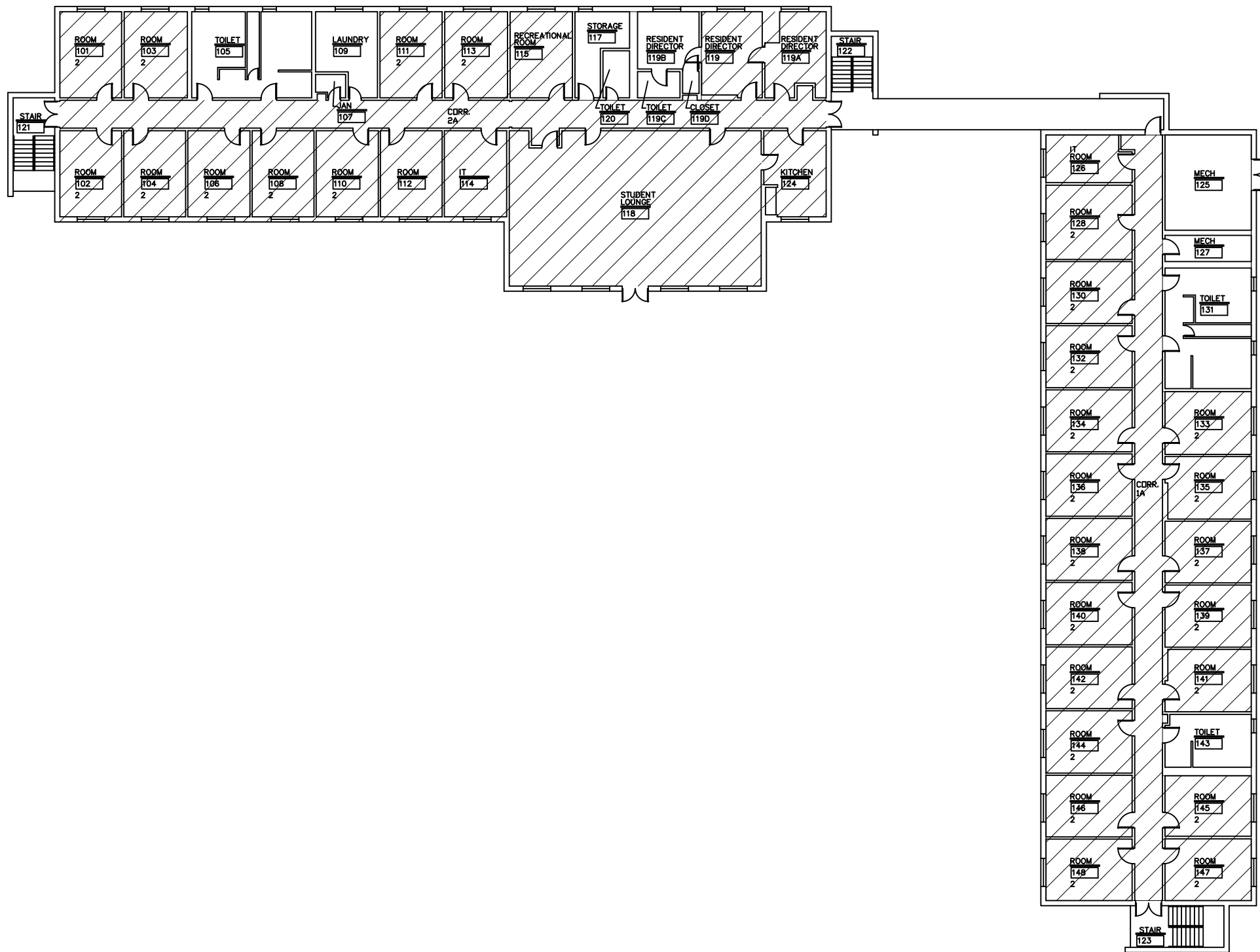
Notes:

1. All floor tile and mastic is to be removed.
2. The pipe insulation used on the First Floor is asbestos containing and to be removed. If any of the same material is found on other floors in areas such as wall cavities, the material is also to be removed.



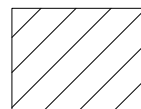
This hatch indicates the location of asbestos containing floor tile and mastic to be removed.

Fayetteville State University Fayetteville, North Carolina	
Vance Hall Demolition Third Floor Asbestos Abatement Locations	
SCALE: NTS	 Energy & Environmental Engineers, PA PO Box 2261 Asheville, NC 28802 828-393-8182
Drawn By: DWH	
DATE: 6/24/21	13044-03-01



Notes:

1. All floor tile and mastic is to be removed.
2. The caulking around all exterior doors is asbestos containing and to be removed.



This hatch indicates the location of asbestos containing floor tile and mastic to be removed.

Fayetteville State University
Fayetteville, North Carolina

Bryan Hall Demolition
First Floor Asbestos Abatement Locations

SCALE: NTS

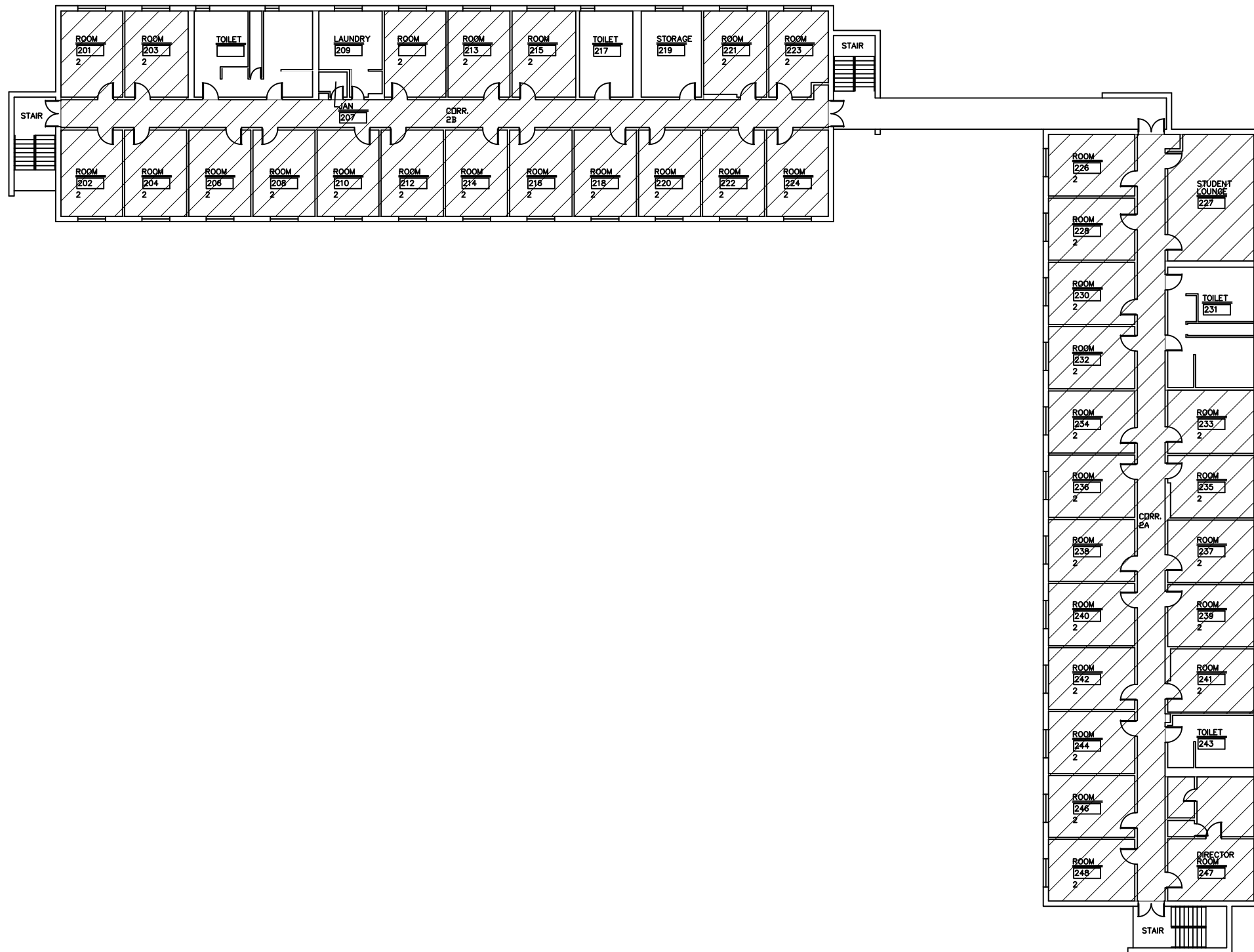
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DATE: 6/24/21

Affinity Energy & Environmental Engineers, PA

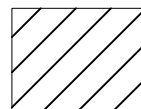
PO Box 2261
Asheville, NC 28802
828-393-8182

13044-04-01




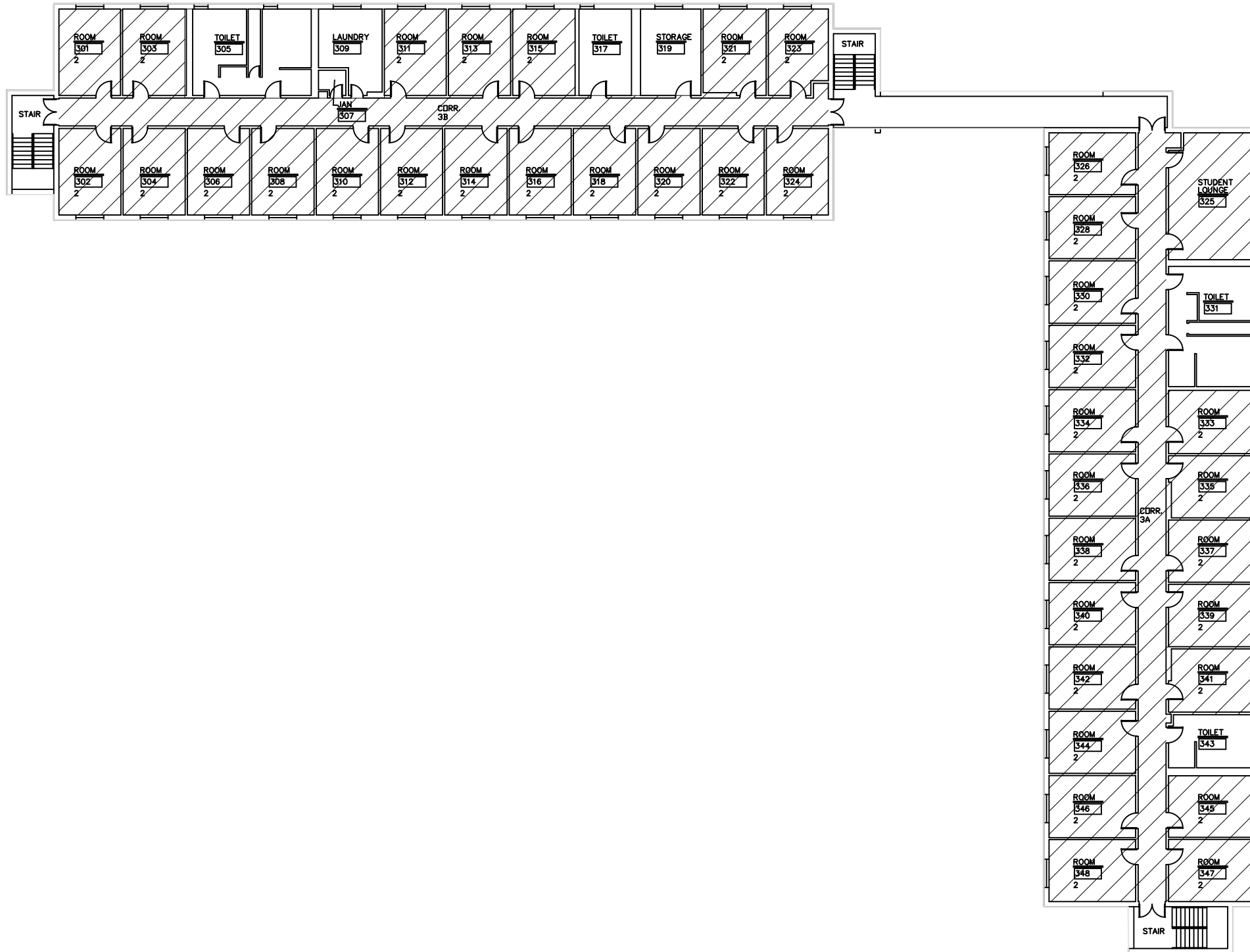
Notes:

1. All floor tile and mastic is to be removed.
2. The caulking around all exterior doors is asbestos containing and to be removed.



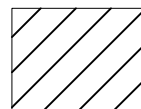
This hatch indicates the location of asbestos containing floor tile and mastic to be removed.

Fayetteville State University Fayetteville, North Carolina	
Bryant Hall Demolition Second Floor Asbestos Abatement Locations	
SCALE: NTS	 PO Box 2261 Asheville, NC 28802 828-393-8182
Drawn By: DWH	
DATE: 6/24/21	13044-05-01




Notes:

1. All floor tile and mastic is to be removed.
2. The caulking around all exterior doors is asbestos containing and to be removed.



This hatch indicates the location of asbestos containing floor tile and mastic to be removed.

Fayetteville State University Fayetteville, North Carolina	
Bryant Hall Demolition Third Floor Asbestos Abatement Locations	
SCALE: NTS	 PO Box 2261 Asheville, NC 28802 828-393-8182
Drawn By: DWH	
DATE: 6/24/21	13044-06-01

Appendix D

SURVEY REPORT TO IDENTIFY ASBESTOS CONTAINING-MATERIALS

**FAYETTEVILLE STATE UNIVERSITY
BRYANT HALL AND VANCE HALL
DORMITORY BUILDING SURVEYS
FAYETTEVILLE, NORTH CAROLINA
EEC PROJECT NO.: N-21-011**

PREPARED FOR:

**FAYETTEVILLE STATE UNIVERSITY
FACILITIES, PLANNING & CONSTRUCTION
1200 MURCHISON ROAD
FAYETTEVILLE, NORTH CAROLINA 28301**

PREPARED BY:

**EEC, Inc.
8514 SIX FORKS ROAD SUITE 101
RALEIGH, NORTH CAROLINA 27615
PHONE: 919-846-1016
FAX: 919-846-1813**



EEC, INC.

PHONE: (919) 846-1016

8514 SIX FORKS ROAD, SUITE 101; RALEIGH, NC 27615 FAX: (919) 846-1813

March 15, 2021

Fayetteville State University
Facilities, Planning, & Construction
1200 Murchison Road
Fayetteville, North Carolina 28301

Attention: Harold Miller
Project Manager

Subject: **Report Summarizing Asbestos Bulk Sampling and Visual Observations
Fayetteville State University
Bryant Hall and Vance Hall Dormitory's
Fayetteville, North Carolina
EEC Job No.: N-21-011**

Dear Mr. Miller:

EEC, Inc. (EEC) is pleased to present this updated survey report for identifying asbestos containing-materials (ACM) of two residential dormitory halls located on the campus of Fayetteville State University (FSU). FSU is located at 1200 Murchison Road in Fayetteville, North Carolina. The residential halls that were to be surveyed are Bryant Hall (BH) and Vance Hall (VH). A previous survey report identified ACM within both of the residential halls, EEC was to reconfirm these locations and collect any additional materials which were found to be non-asbestos and any additional materials which were not sampled as these buildings are scheduled to be demolished. This report presents known project information, survey procedures, survey results and recommendations.

PROJECT INFORMATION

From information provided in previous reports, both the residential halls were built in 1967 and renovations had been completed in each building over the years. Both VH and BH are scheduled for demolition in the near future. FSU has a previous survey report from NFE Technologies Inc, located in Morrisville, North Carolina that were conducted in April 2002. NFE provided a survey report for ACM and Lead for each of the residential halls. The survey had indicated ACM locations in both buildings. VH contained positive 9-inch by 9-inch floor tile and black floor mastic on each floor of the building, Thermal System Insulation (TSI) elbows and TSI pipeline. BH contained 9-inch by 9-inch floor tile and black mastic under non-ACM 12-inch by 12-inch floor on each floor of the building

EEC conducted additional bulk sampling in each of the buildings as per the request of FSU. Our findings with our ACM bulk sampling is detailed in this report. Along with our sampling the original ACM bulk sampling is also in this report as an attachment.

SURVEY PROCEDURES

Our survey and assessment of VH and BH for asbestos was performed on March 3 and 10, 2021 with our representatives Stephen Halyard, (N. C. Asbestos Inspector No. 12360) and Donnie Mercer (N. C. Asbestos Inspector No. 11224) conducting a visual survey and assessment. At the time of our visit, we met with the FSU representative in the planning and construction department of FSU to gain access into the both buildings. Our visual survey and assessment began with our personnel walking through and visually assessing the buildings for the presence of suspect hazardous materials. For asbestos, both friable and nonfriable suspect materials were considered during the course of the survey. Friable materials are those materials that can be pulverized or reduced to powder by hand pressure, such as the spray-applied textured ceiling finish and the gypsum wallboard and associated joint compound.

At the completion of our assessment, a sampling strategy was determined and bulk samples were obtained. Suspect materials were grouped based on material homogeneity. A homogeneous area is an area that contains materials that seem by texture, color and wear to be uniform and applied during the same general time period. Several suspect materials were observed and documented. Bulk samples were obtained and sent to a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory for analysis. The accreditation number for the selected asbestos laboratory (AmeriSci Richmond located in Midlothian, Virginia) is 101904-0.

Samples were collected of door and window caulking, pipe wrap tar insulation, roofing materials, expansion caulking and heat shield insulation on light fixtures. Each bulk sample obtained was then placed in a sealed container and labeled with consecutive numbers, a description of the sampling location, the date of sampling and the sampler's name. This information was logged on Amerisci Analytical chain-of-custody and then shipped to the respective laboratory for analysis. The "signed" chain-of-custody form is maintained with the samples until they are returned or disposed of by the laboratory.

ANALYTICAL PROCEDURES

Asbestos Bulk Samples:

Each bulk sample suspected for containing asbestos fibers were analyzed using Polarized Light Microscopy (PLM), coupled with Dispersion Staining as outlined in the Environmental Protection Agency's (EPA) accredited test method EPA 600/M4-82-020 that incorporates method EPA-600/R-93/116 where applicable as per 40 CFR 763. There were no bulk samples identified to contain asbestos fibers in amounts greater than one percent. A summary of the bulk sampling performed during our assessment is attached in the section entitled, "Asbestos Bulk Sampling Record". We have also attached a copy of the laboratory report in the section entitled, "AmeriSci Analytical - PLM Bulk Asbestos Report".

SUMMARY OF ANALYTICAL RESULTS

Asbestos-Containing Materials:

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

TYPE OF MATERIAL	GENERAL LOCATION*	TYPE OF ASBESTOS AND PERCENTAGE	ESTIMATED QUANTITY
BRYANT HALL NFE Technologies Inc. 2002 Survey Report			
9-inch by 9-inch Floor Tile and Black Mastic Under Non-ACM 12-inch by 12-inch Floor Tile	All Floors	Tile: 6% Chrysotile Mastic: 8% Chrysotile	30,000 square feet (sq ft)
EEC Inc 2021 Survey Report			
Door Caulking	All Exterior Exit Doors	3% Chrysotile	13 each
VANCE HALL NFE Technologies Inc. 2002 Survey Report			
9-inch by 9-inch White/Light Gray Floor Tile and Black Mastic	All Floors	Tile: 6% Chrysotile Mastic: 5% Chrysotile	30,000 sq ft
Thermal System Insulation (TSI) Fittings Above Ceiling	First Floor and Lounge	Fittings: 5% Chrysotile	600 each
TSI Pipeline Insulation	First Floor and Lounge	Pipe: 12% Amosite 3% Chrysotile	350 linear feet

TYPE OF MATERIAL	GENERAL LOCATION*	TYPE OF ASBESTOS AND PERCENTAGE	ESTIMATED QUANTITY
EEC Inc 2021 Survey Report			
Light Heat Shield Wrap	Office In Suite 104	50-60% Chrysotile	2 each

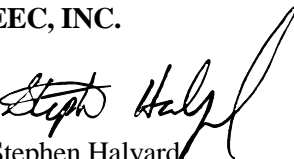
QUALIFICATIONS

This report summarizes EEC's evaluation of the conditions observed in Bryant Hall and Vance Hall located on the main campus of Fayetteville State University in Fayetteville, North Carolina during the course of our survey and assessment. Our findings are based upon our observations made at the facility and analyses of the samples obtained at the time of our survey. Any conditions discovered which deviate from the data contained in this report should be presented to us for our evaluation.

EEC appreciates the opportunity to have provided these services. We would be glad to discuss any of the results contained in this report at your convenience. If there are any questions concerning this report or results, please contact us at (919) 846-1016.

Sincerely,

EEC, INC.


Stephen Halyard
Asbestos Projects Manager
N.C. Inspector No. 12360


Mike Shrimanker, PE, CIH, CSP
President

Attachments: Asbestos Bulk Sampling Record
Laboratory Analysis Sheets - AmeriSci Analytical Results
Drawings
Asbestos Bulk Sampling Locations
Asbestos Containing Materials Locations
Appendix
NFE Technologies Inc. Asbestos and Lead Paint Assessments Reports
Bryant Hall Report
Vance Hall Report

ASBESTOS BULK SAMPLING RECORD

**ASBESTOS BULK SAMPLING RECORD
 FAYETTEVILLE STATE UNIVERSITY
 BRYANT HALL
 EEC JOB NO.: N-21-011
 SAMPLER: STEPHEN HALYARD/DONNIE MERCER**

SAMPLE NUMBER	SAMPLE LOCATION	TYPE OF MATERIAL	TYPE OF ASBESTOS AND PERCENTAGE
BH-1	Exterior Door	Caulking	3% Chrysotile
BH-2	Exterior Door	Caulking	3% Chrysotile
BH-3	Men's Restroom Pipe Chase	Black Mastic	None Detected
BH-3(A)	Men's Restroom Pipe Chase	Brown/Silver Pipe Insulation Wrap	None Detected
BH-3(B)	Men's Restroom Pipe Chase	Orange Insulation	None Detected
BH-4	Women's Restroom in Pipe Chase	Black Mastic	None Detected
BH-4(A)	Women's Restroom in Pipe Chase	Brown/Silver Pipe Insulation Wrap	None Detected
BH-4(B)	Women's Restroom in Pipe Chase	Orange Insulation	None Detected
BH-5	Women Restroom	Brown Adhesive Glue	None Detected
BH-6	Men Restroom	Brown Adhesive Glue	None Detected
BH-7	Exterior Window	Caulking	None Detected
BH-8	Exterior Window	Caulking	None Detected

**ASBESTOS BULK SAMPLING RECORD
 FAYETTEVILLE STATE UNIVERSITY
 VANCE HALL
 EEC JOB NO.: N-21-011
 SAMPLER: STEPHEN HALYARD/DONNIE MERCER**

SAMPLE NUMBER	SAMPLE LOCATION	TYPE OF MATERIAL	TYPE OF ASBESTOS AND PERCENTAGE
VH-1	Rear of Building	Expansion Caulking	None Detected
VH-2	Near Room 308	Expansion Caulking	None Detected
VH-3	Suite 107-1 Interior Window	Window Caulking	None Detected
VH-4	Suite 108-1 Interior Window	Window Caulking	None Detected
VH-5	Suite 109	Pipe Insulation Wrap w/ Black Mastic	None Detected
VH-6	Suite 111	Pipe Insulation Wrap w/Black Mastic	None Detected
VH-7	Office Beside Ste104	Paper Heat Shield Wrap	50% Chrysotile
VH-8	Office Beside Ste104	Paper Heat Shield Wrap	60% Chrysotile
VH-9	Room 314-1 Exterior Window	Window Caulking	None Detected
VH-10	Lounge Exterior Window	Window Caulking	None Detected
VH-11	Suite 106-4	Door Caulking	None Detected
VH-12	Suite 108 Interior	Door Caulking	None Detected
VH-13	Room 314 Exterior	Door Caulking	None Detected
VH-14	Room 314-1 Interior	Door Caulking	None Detected
VH-15	Suite 107 Exterior	Door Caulking	None Detected
VH-16	Suite 109 Door Caulking	Door Caulking	None Detected
VHC-1	Roof Core	Roof Core over Suite 314	None Detected

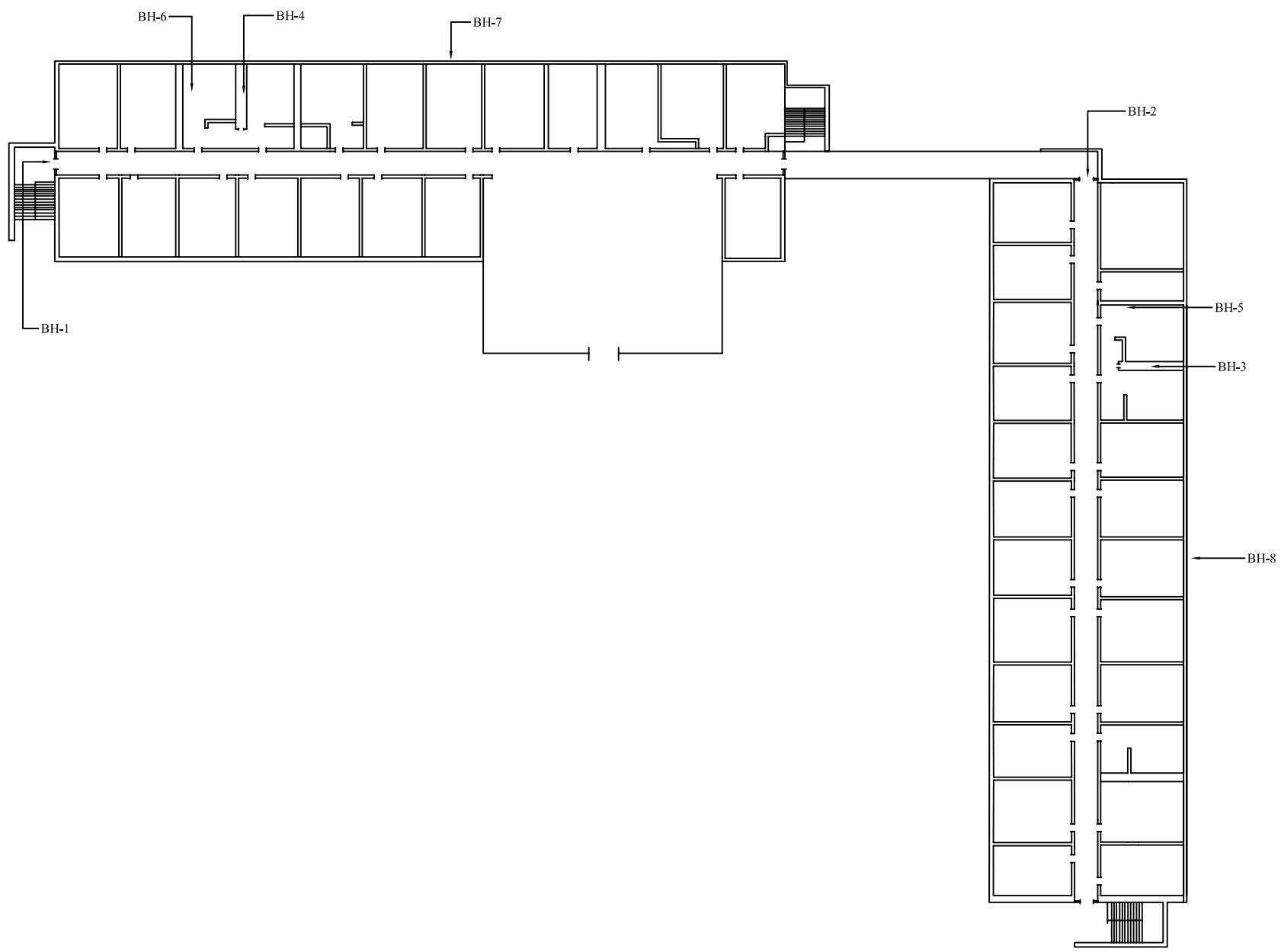
**ASBESTOS BULK SAMPLING RECORD
 FAYETTEVILLE STATE UNIVERSITY
 VANCE HALL
 EEC JOB NO.: N-21-011
 SAMPLER: STEPHEN HALYARD/DONNIE MERCER**

SAMPLE NUMBER	SAMPLE LOCATION	TYPE OF MATERIAL	TYPE OF ASBESTOS AND PERCENTAGE
VHC-2	Roof Core	Roof Core Over Suite 313	None Detected
VHC-3	Roof Core	Roof Core Over Suite 310	None Detected
VHC-4	Roof Core	Roof Core Over Suite 307	None Detected
VHC-5	Roof Core	Roof Core Over Suite 304	None Detected
VHC-6	Roof Core – Over Lounge	Roof Core – Over Lounge	None Detected
VHC-7	Roof Core – Over Lounge	Roof Core – Over Lounge	None Detected
VHF-1	Roof Flashing	Roof Flashing	None Detected
VHF-2	Roof Flashing	Roof Flashing	None Detected
VHF-3	Roof Flashing	Roof Flashing	None Detected
VHF-4	Roof Flashing	Roof Flashing	None Detected
VHP-1	Roof Vent Penetration	Roof Vent Penetration	None Detected
VHP-2	Roof Vent Penetration	Roof Vent Penetration	None Detected
VHP-3	Roof Vent Penetration	Roof Vent Penetration	None Detected

DRAWINGS

ASBESTOS BULK SAMPLING LOCATIONS

FIRST FLOOR



INDUSTRIAL HYGIENE SAFETY AND
 ENVIRONMENTAL ENGINEERING SERVICES
 8514 SIX FORKS ROAD SUITE 101
 RALEIGH, NORTH CAROLINA 27615
 TEL No. (919) 846-1016
 FAX No. (919) 846-1813

ACM SAMPLING LOCATIONS DRAWING
 BRYANT HALL
 FAYETTEVILLE STATE UNIVERSITY
 BUILDING DEMOLITION
 FAYETTEVILLE, NORTH CAROLINA

ISSUED:

REVISION:

DRAWN BY: SH
 REVIEWED BY: MS
 APPROVED BY: MS

PROJECT NO.:
 N-21-011

SHEET NO.:
 1

ISSUED:

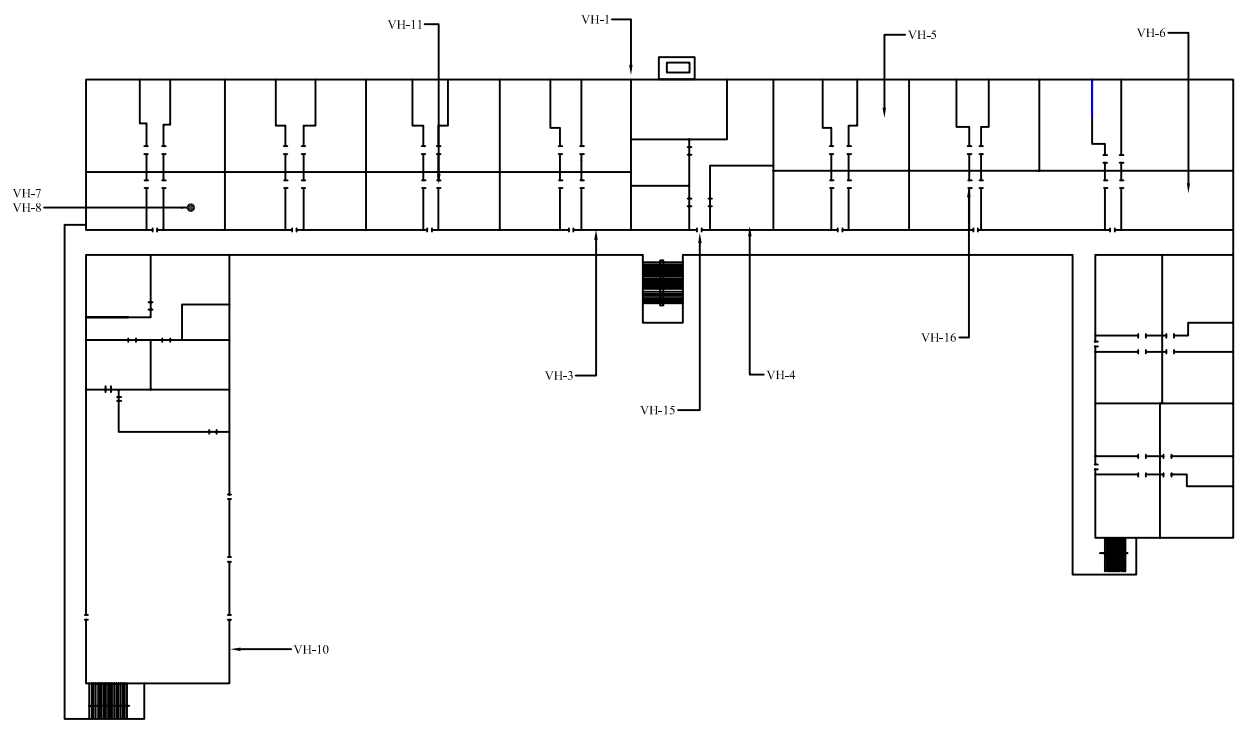
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REVIEWED BY: MS
APPROVED BY: MS

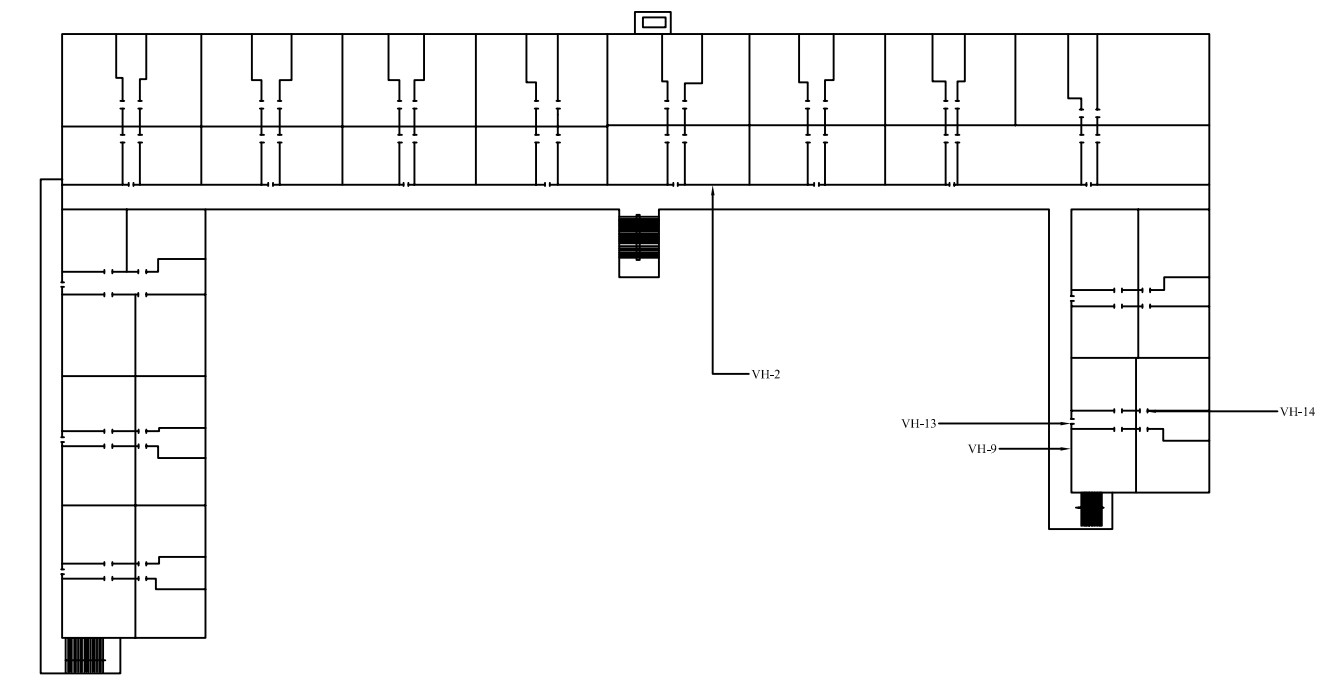
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N-21-011

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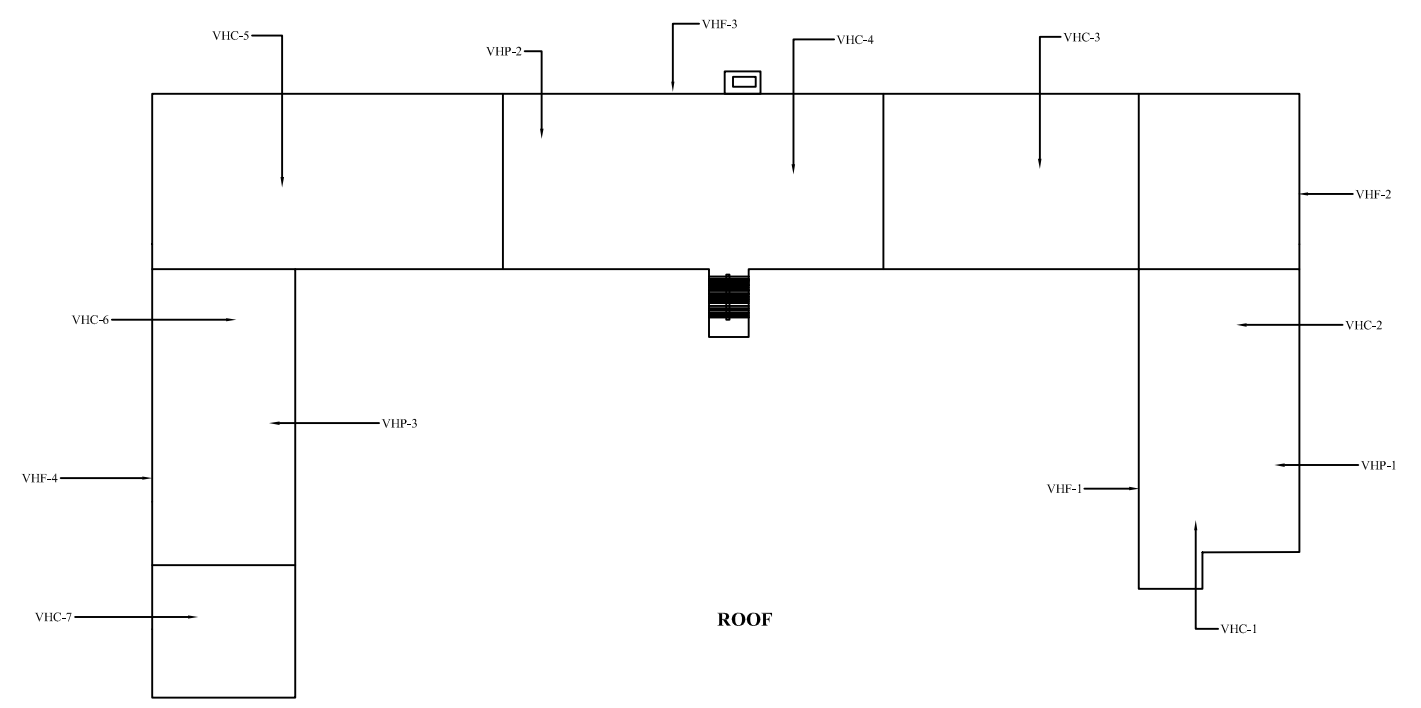
SECOND FLOOR



LEGEND

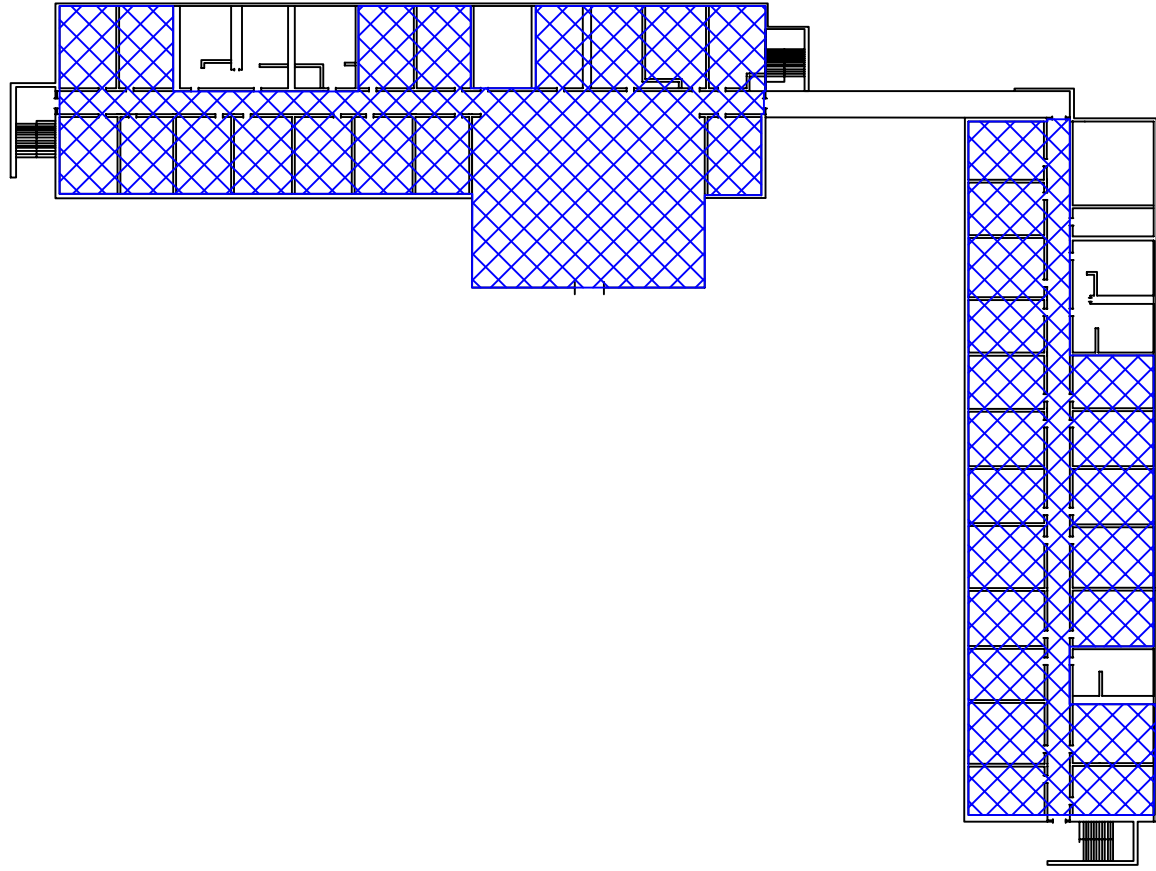
- Non-Asbestos Sample
- Positive Asbestos Sample

ROOF

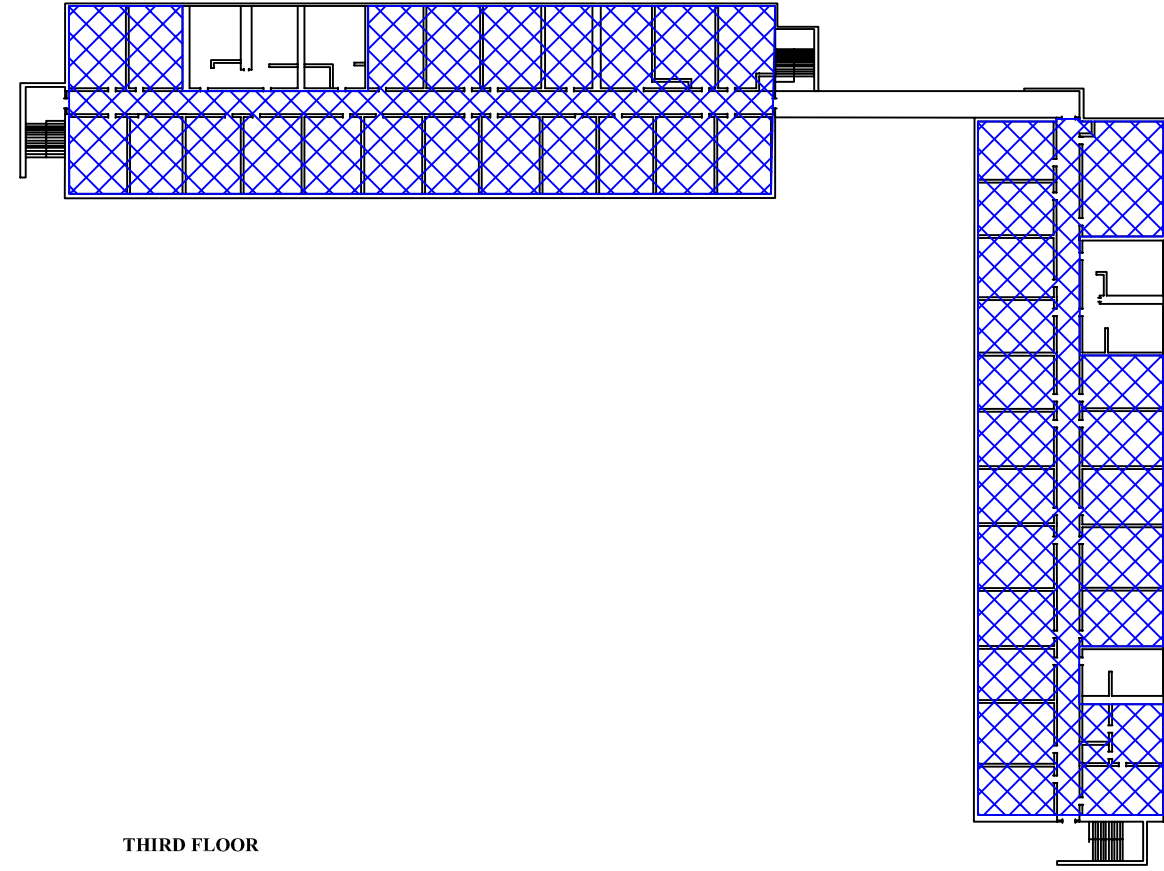


**ASBESTOS CONTAINING MATERIALS
LOCATION DRAWINGS**

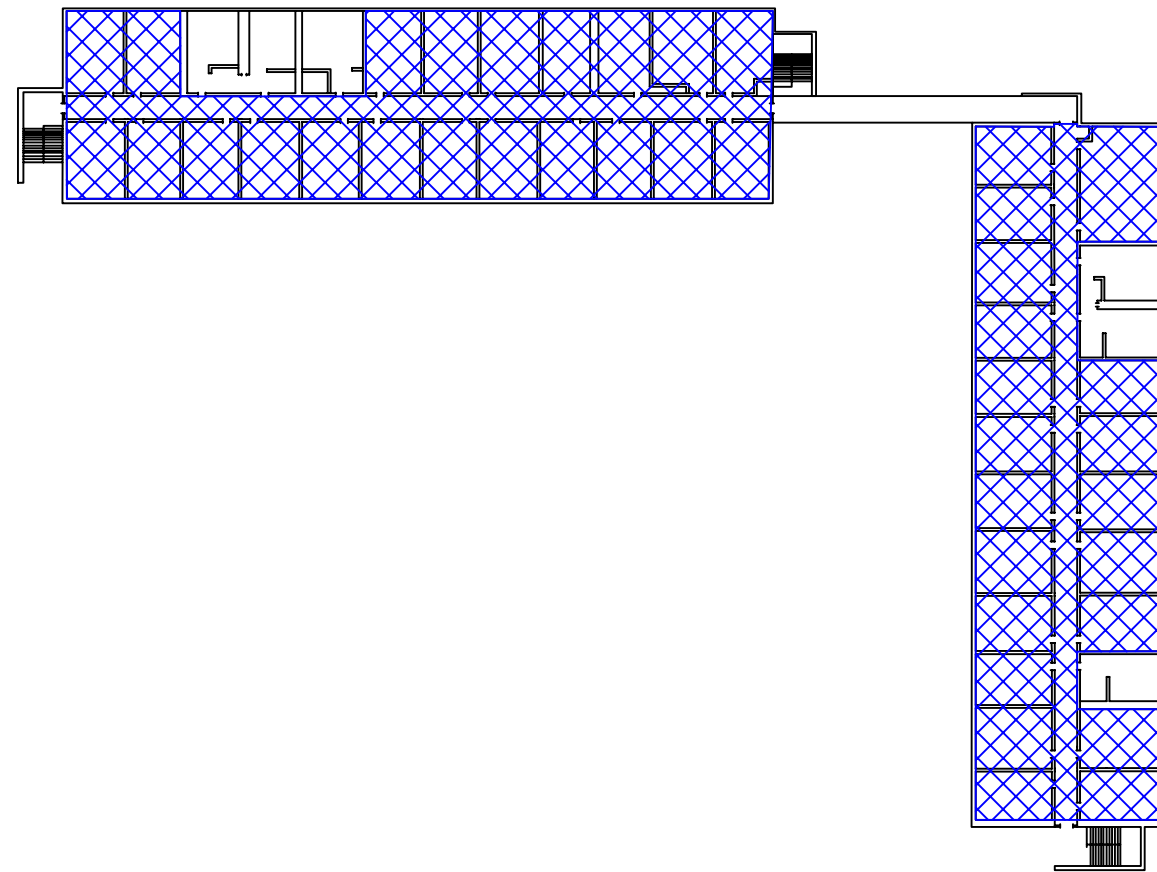
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SECOND FLOOR



THIRD FLOOR



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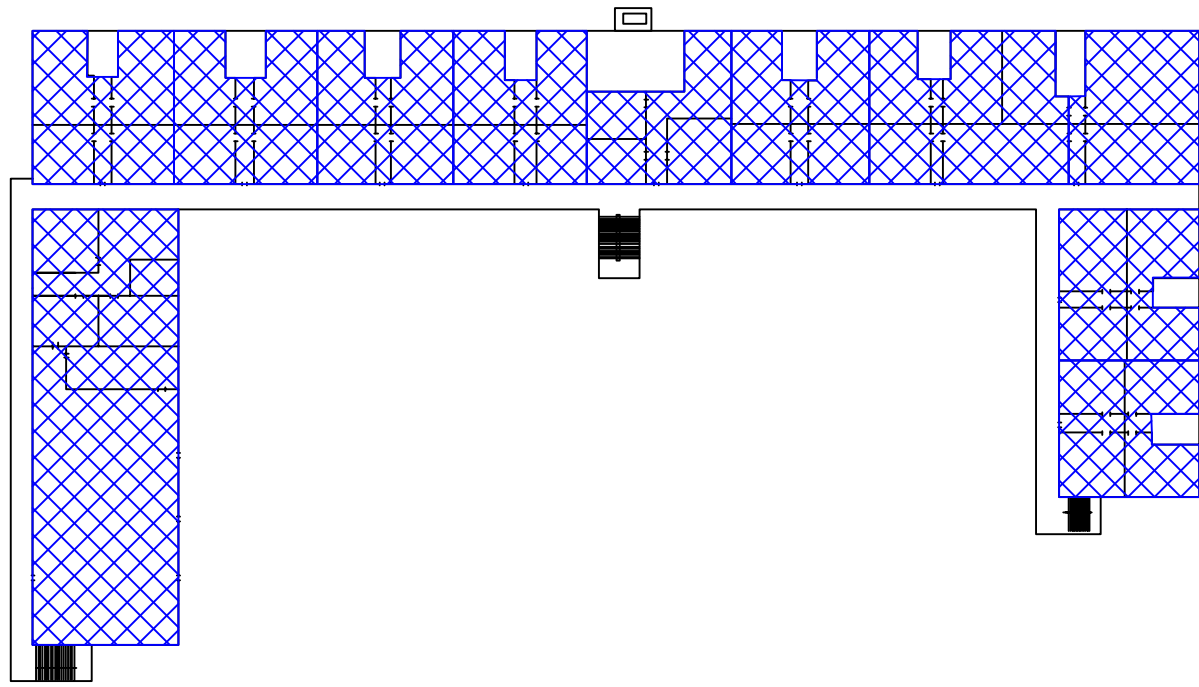
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APPROVED BYMS

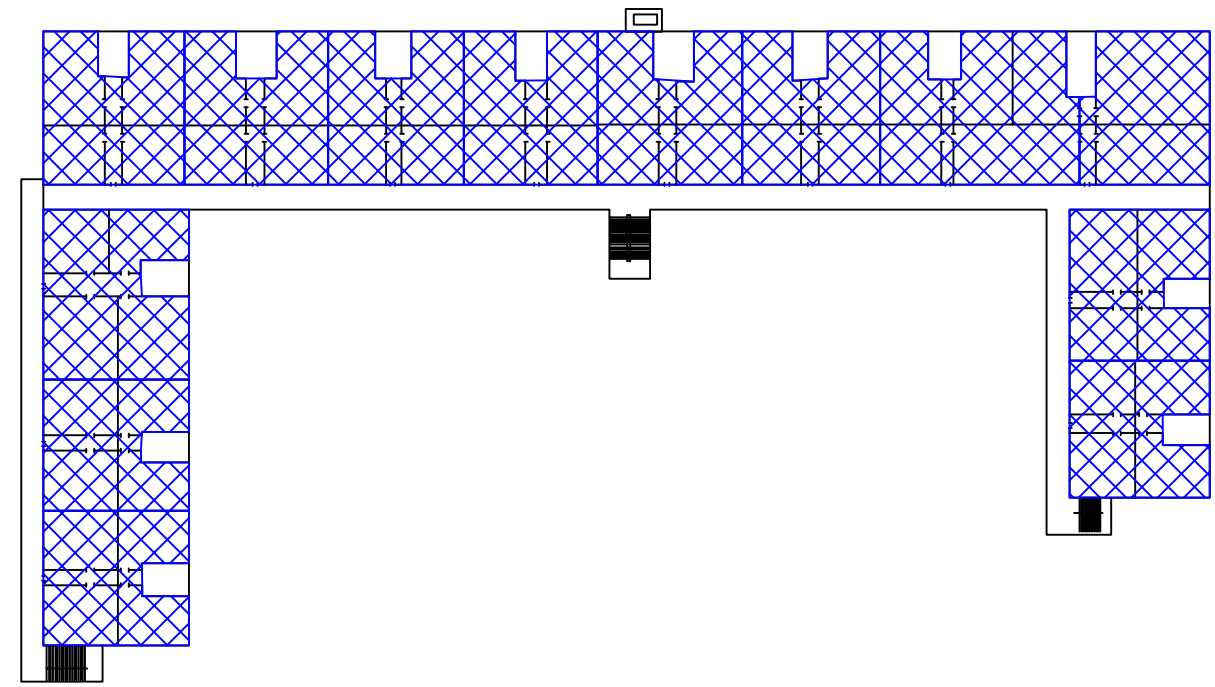
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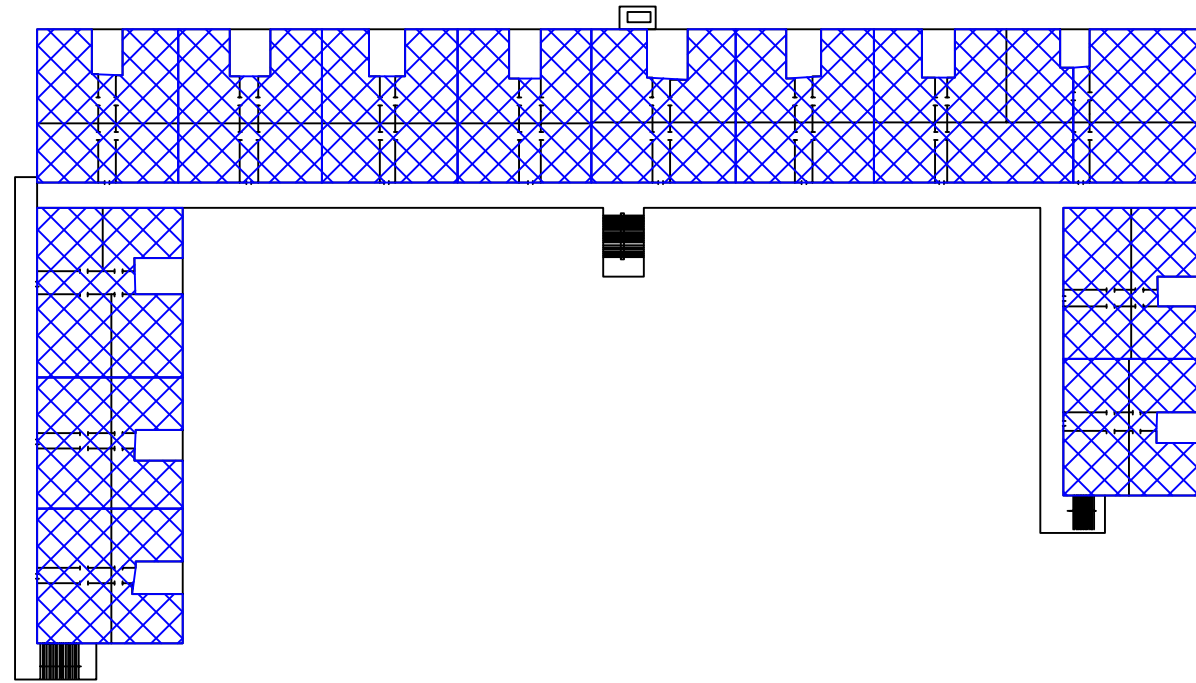
FIRST FLOOR



SECOND FLOOR



THIRD FLOOR



RALEIGH, NC

INDUSTRIAL HYGIENE SAFETY AND
 ENVIRONMENTAL ENGINEERING SERVICES
 8514 SIX FORKS ROAD, SUITE 101
 RALEIGH, NORTH CAROLINA 27615
 TEL No. (919) 846-1016
 FAX No. (919) 846-1813

ASBESTOS FLOOR TILE LOCATIONS DRAWING
 VANCE HALL
 FAYETTEVILLE STATE UNIVERSITY
 BUILDING DEMOLITION
 FAYETTEVILLE, NORTH CAROLINA

ISSUED:

REVISION:

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DRAWN BY: SH

REVIEWED BY: MS

APPROVED BY: MS

PROJECT No.

N-21-011

SHEET No.

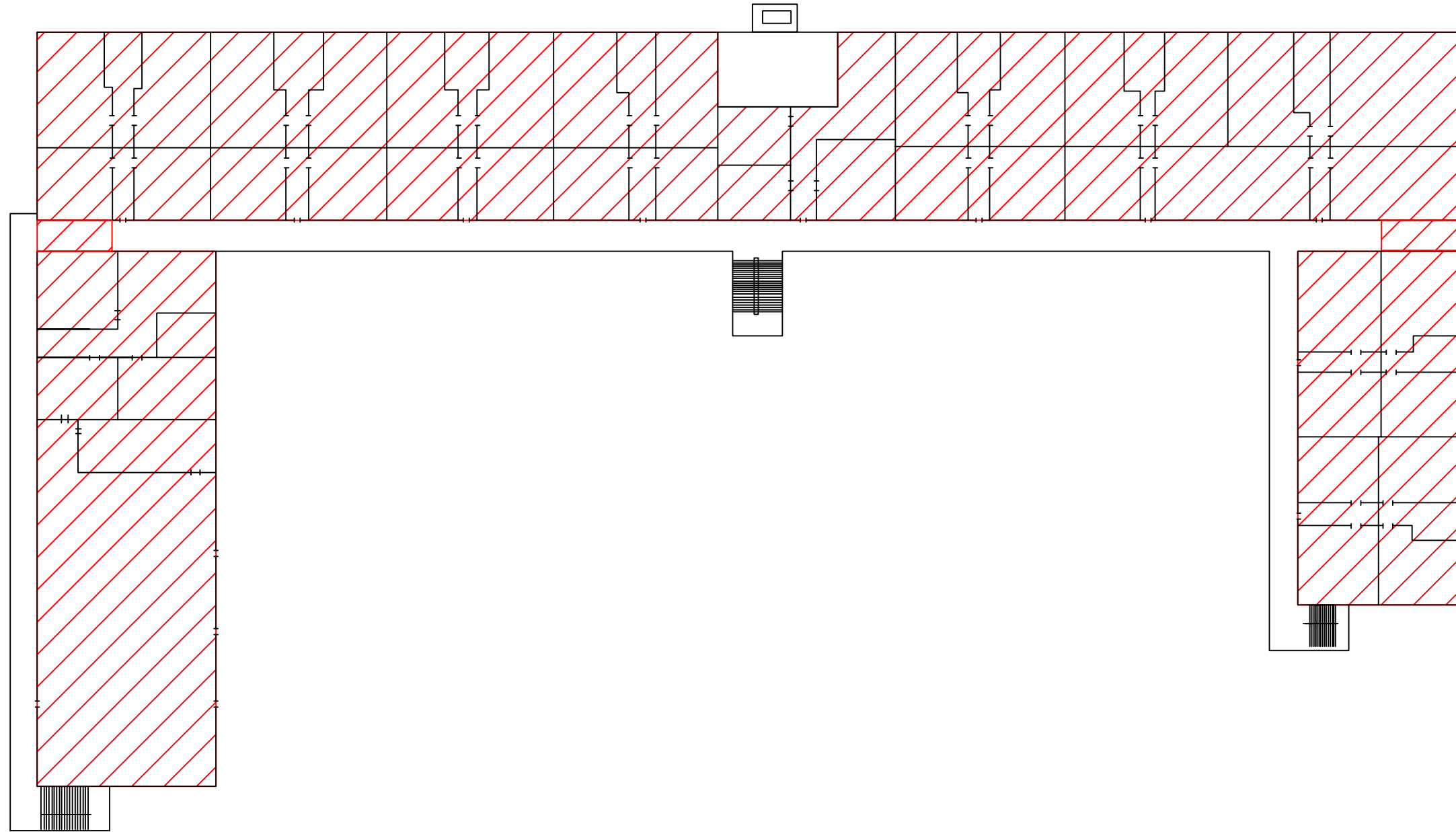
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RALEIGH, NC

INDUSTRIAL HYGIENE SAFETY AND
ENVIRONMENTAL ENGINEERING SERVICES
8514 SIX FORKS ROAD, SUITE 101
RALEIGH, NORTH CAROLINA 27615
TEL No. (919) 846-1016
FAX No. (919) 846-1813

FIRST FLOOR



ASBESTOS TSI PIPELINE & FITTINGS LOCATIONS DRAWING
VANCE HALL
FAYETTEVILLE STATE UNIVERSITY
BUILDING DEMOLITION
FAYETTEVILLE, NORTH CAROLINA

ISSUED:
REVISION:
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DRAWN BY: SH
REVIEWED BY: MS
APPROVED BY: MS

PROJECT No.
N-21-011

SHEET No.
3

**LABORATORY ANALYSIS SHEETS
AMERISCI RICHMOND ANALYTICAL RESULT**



AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: 8047631200 FAX: 8047631800

March 11, 2021

EEC INC
Attn: Mike Shrimanker
8514 Six Forks Road
Suite 101
Raleigh, NC 27615

RE: EEC INC
Job Number 121031508
P.O. #N-21-011
N-21-011; FSU-Bryant Hall; Bulk Survey

Dear Mike Shrimanker:

Enclosed are the results for PLM asbestos analysis of the following EEC INC samples received at AmeriSci on Thursday, March 11, 2021, for a 24 hour turnaround:

BH-1, BH-2, BH-3, BH-4, BH-5, BH-6, BH-7, BH-8

The 8 samples contained in zip lock bag were shipped to AmeriSci via Fed Ex 8164 3813 0402 B. These samples were prepared and analyzed according to EPA PLM Method (EPA 600/R-93/116 Section 2.2). The required analytical information, analysis results, analyst signature and laboratory identification are contained in the PLM Bulk Asbestos Report. If TEM analysis was requested for selected samples the gravimetric reduction data (by Sec 2.3) and TEM Asbestos % (by Sec 2.5) are included in Table 1 along with a summary of Asbestos % by PLM for all samples analyzed.

This report relates ONLY to the sample analysis expressed as % asbestos. AmeriSci assumes no responsibility for customer supplied data such as "sample type", "location", or "area sampled". This report must not be used to claim product endorsement by AmeriSci, NVLAP or any agency of the U. S. Government. The National Institute of Standards and Technology accreditation requirements mandate that this report must not be reproduced, except in full, without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Brian Keith". The signature is fluid and cursive, written in a professional style.

T. Brian Keith
Laboratory Director | Authorized Signatory

**AmeriSci Richmond**13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: (804) 763-1200 • FAX: (804) 763-1800

PLM Bulk Asbestos Report

EEC INC
Attn: Mike Shrimanker
8514 Six Forks Road
Suite 101
Raleigh, NC 27615**Date Received** 03/11/21 **AmeriSci Job #** 121031508
Date Examined 03/11/21 **P.O. #**
Page 1 **of** 3
RE: N-21-011; FSU-Bryant Hall; Bulk Survey

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
BH-1 Location: Exterior Door Caulking Analyst Description: Gray, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Chrysotile 3.0 % Other Material: Non-fibrous 97%	121031508-01	Yes	3% (by CVES) by C. David Mintz on 03/11/21
BH-2 Location: Exterior Door Caulking Analyst Description: Gray, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Chrysotile 3.0 % Other Material: Non-fibrous 97%	121031508-02	Yes	3% (by CVES) by C. David Mintz on 03/11/21
BH-3 Location: Pipe Insulation Wrap In Pipe Chase Analyst Description: Black, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Cellulose Trace, Fibrous glass Trace, Non-fibrous 100% Comment: Black mastic attached to Brown Paper and Silver Metallic Foil.	121031508-03.1	No	NAD (by CVES) by C. David Mintz on 03/11/21
BH-3 Location: Pipe Insulation Wrap In Pipe Chase Analyst Description: Brown/ Silver, Heterogeneous, Fibrous, Paper/ Metallic Foil Asbestos Types: Other Material: Cellulose 10%, Non-fibrous 90% Comment: Brown Paper and Silver Metallic Foil.	121031508-03.2	No	NAD (by CVES) by C. David Mintz on 03/11/21

PLM Bulk Asbestos Report

N-21-011; FSU-Bryant Hall; Bulk Survey

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
BH-3 Location: Pipe Insulation Wrap In Pipe Chase Analyst Description: Orange, Homogeneous, Fibrous, Insulation Asbestos Types: Other Material: Fibrous glass 95%, Non-fibrous 5%	121031508-03.3	No	NAD (by CVES) by C. David Mintz on 03/11/21
BH-4 Location: Pipe Insulation Wrap In Pipe Chase Analyst Description: Black, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Cellulose Trace, Fibrous glass Trace, Non-fibrous 100%	121031508-04.1	No	NAD (by CVES) by C. David Mintz on 03/11/21
BH-4 Location: Pipe Insulation Wrap In Pipe Chase Analyst Description: Brown/ Silver, Heterogeneous, Fibrous, Paper/ Metallic Foil Asbestos Types: Other Material: Cellulose 10%, Non-fibrous 90%	121031508-04.2	No	NAD (by CVES) by C. David Mintz on 03/11/21
BH-4 Location: Pipe Insulation Wrap In Pipe Chase Analyst Description: YellowOrange, Homogeneous, Fibrous, Insulation Asbestos Types: Other Material: Fibrous glass 95%, Non-fibrous 5%	121031508-04.3	No	NAD (by CVES) by C. David Mintz on 03/11/21
BH-5 Location: Brown Mirror Glue In Women Restroom Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031508-05	No	NAD (by CVES) by C. David Mintz on 03/11/21
BH-6 Location: Brown Mirror Glue In Men Restroom Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031508-06	No	NAD (by CVES) by C. David Mintz on 03/11/21

PLM Bulk Asbestos Report

N-21-011; FSU-Bryant Hall; Bulk Survey

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
BH-7 Location: Exterior Window Caulking	121031508-07	No	NAD (by CVES) by C. David Mintz on 03/11/21
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Synthetic fibers 3%, Non-fibrous 97%			
BH-8 Location: Exterior Window Caulking	121031508-08	No	NAD (by CVES) by C. David Mintz on 03/11/21
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Synthetic fibers 3%, Non-fibrous 97%			

Reporting Notes:

Analyzed by: C. David Mintz
Date: 3/11/2021



Reviewed by: C. David Mintz



*NAD = no asbestos detected, Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; "Present" or NVA = "No Visible Asbestos" are observations made during a qualitative analysis; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis using Olympus, Model BH-2 microscope, Serial #210972, by EPA 600/R-93/116 per 40 CFR 763 (NVLAP Lab Code 101904-0) and ELAP PLM Analysis Protocol 198.1 for New York friable samples which includes quantitation of any vermiculite observed (198.6 for NOB samples) or EPA 400 pt ct by EPA 600/M4-82-020 (NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.



AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: 8047631200 FAX: 8047631800

March 12, 2021

EEC INC
Attn: Mike Shrimanker
8514 Six Forks Road
Suite 101
Raleigh, NC 27615

RE: EEC INC
Job Number 121031510
P.O. #N-21-011
N-21-011; FSU-Vance Hall; Bulk Sampling

Dear Mike Shrimanker:

Enclosed are the results for PLM asbestos analysis of the following EEC INC samples received at AmeriSci on Thursday, March 11, 2021, for a 24 hour turnaround:

VH-1, VH-2, VH-3, VH-4, VH-5, VH-6, VH-7, VH-8, VH-9, VH-10, VH-11, VH-12, VH-13, VH-14, VH-15, VH-16, VHC-1, VHC-2, VHC-3, VHC-4, VHC-5, VHC-6, VHC-7, VHF-1, VHF-2, VHF-3, VHF-4, VHP-1, VHP-2, VHP-3

The 30 samples contained in zip lock bag were shipped to AmeriSci via Fed Ex 8164 3813 0402 B. These samples were prepared and analyzed according to EPA PLM Method (EPA 600/R-93/116 Section 2.2). The required analytical information, analysis results, analyst signature and laboratory identification are contained in the PLM Bulk Asbestos Report. If TEM analysis was requested for selected samples the gravimetric reduction data (by Sec 2.3) and TEM Asbestos % (by Sec 2.5) are included in Table 1 along with a summary of Asbestos % by PLM for all samples analyzed.

This report relates ONLY to the sample analysis expressed as % asbestos. AmeriSci assumes no responsibility for customer supplied data such as "sample type", "location", or "area sampled". This report must not be used to claim product endorsement by AmeriSci, NVLAP or any agency of the U. S. Government. The National Institute of Standards and Technology accreditation requirements mandate that this report must not be reproduced, except in full, without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Brian Keith". The signature is fluid and cursive, written over a light blue horizontal line.

T. Brian Keith
Laboratory Director | Authorized Signatory

**AmeriSci Richmond**13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: (804) 763-1200 • FAX: (804) 763-1800

PLM Bulk Asbestos Report

EEC INC
Attn: Mike Shrimanker
8514 Six Forks Road
Suite 101
Raleigh, NC 27615**Date Received** 03/11/21 **AmeriSci Job #** 121031510
Date Examined 03/11/21 **P.O. #**
Page 1 **of** 6
RE: N-21-011; FSU-Vance Hall; Bulk Sampling

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VH-1 Location: Rear Of Building - Expansion Caulking Analyst Description: White/Black, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-01	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VH-2 Location: Near Room 308 Expansion Caulking Analyst Description: White/Black, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-02	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VH-3 Location: Suite 107-1 Interior Window Caulking Analyst Description: White/Black, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-03	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VH-4 Location: Suite 108-1 Interior Window Caulking Analyst Description: White/Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-04	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VH-5 Location: Suite 109 Pipe Insulation Wrap W/Black Mastic Analyst Description: Brown/Black/Silver, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 35%, Fibrous glass 10%, Non-fibrous 55%	121031510-05	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21

PLM Bulk Asbestos Report

N-21-011; FSU-Vance Hall; Bulk Sampling

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VH-6 Location: Suite 111 Pipe Insulation Wrap W/Black Mastic	121031510-06	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Brown/Black/Silver, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 35%, Fibrous glass 15%, Non-fibrous 50%			
VH-7 Location: Office Beside Ste104 Paper Heat Shield Wrap	121031510-07	Yes	50% (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Off-White/Silver, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types: Chrysotile 50.0 %			
Other Material: Cellulose 10%, Non-fibrous 40%			
VH-8 Location: Office Beside Ste104 Paper Heat Shield Wrap	121031510-08	Yes	60% (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Beige/Silver, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types: Chrysotile 60.0 %			
Other Material: Cellulose 15%, Non-fibrous 25%			
VH-9 Location: Room 314-1 Exterior Window Caulking	121031510-09	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 2%, Non-fibrous 98%			
VH-10 Location: Lounge Exterior Window Caulking	121031510-10	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100%			
VH-11 Location: Suite 106-4 Door Caulking	121031510-11	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Off-White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100%			

PLM Bulk Asbestos Report

N-21-011; FSU-Vance Hall; Bulk Sampling

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VH-12 Location: Suite 108 Interior Door Caulking Analyst Description: Off-White, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-12	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VH-13 Location: Room 314 Exterior Door Caulking Analyst Description: Gray, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-13	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VH-14 Location: Room 314-1 Interior Door Caulking Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-14	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VH-15 Location: Suite 107 Exterior Door Caulking Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-15	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VH-16 Location: Suite 109 Door Caulking Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-16	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VHC-1 Location: Roof Core Analyst Description: Black/Yellow, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 5%, Fibrous glass 3%, Non-fibrous 92%	121031510-17	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21

PLM Bulk Asbestos Report

N-21-011; FSU-Vance Hall; Bulk Sampling

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VHC-2 Location: Roof Core	121031510-18	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Black/Yellow, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 5%, Fibrous glass 2%, Non-fibrous 93%			
VHC-3 Location: Roof Core	121031510-19	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Black/Yellow, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 6%, Fibrous glass 2%, Non-fibrous 92%			
VHC-4 Location: Roof Core	121031510-20	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Black/Yellow, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 3%, Non-fibrous 97%			
VHC-5 Location: Roof Core	121031510-21	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Black/Yellow, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 3%, Non-fibrous 97%			
VHC-6 Location: Roof Core - Over Lounge	121031510-22	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Black/Yellow, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 2%, Non-fibrous 98%			
VHC-7 Location: Roof Core - Over Lounge	121031510-23	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Black/Yellow, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%			

PLM Bulk Asbestos Report

N-21-011; FSU-Vance Hall; Bulk Sampling

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VHF-1 Location: Roof Flashing Analyst Description: Gray/Yellow, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-24	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VHF-2 Location: Roof Flashing Analyst Description: Gray/Yellow, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-25	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VHF-3 Location: Roof Flashing Analyst Description: Black/Yellow, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-26	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VHF-4 Location: Roof Flashing Analyst Description: Black/Yellow, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-27	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VHP-1 Location: Roof Vent Penetration Analyst Description: Black, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 20%, Non-fibrous 80%	121031510-28	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21
VHP-2 Location: Roof Vent Penetration Analyst Description: Black/Yellow, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%	121031510-29	No	NAD (by CVES) by Donna M. Blackwell on 03/11/21

PLM Bulk Asbestos Report

N-21-011; FSU-Vance Hall; Bulk Sampling

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VHP-3	121031510-30	No	NAD
Location: Roof Vent Penetration			(by CVES) by Donna M. Blackwell on 03/11/21
Analyst Description: Black/Yellow/Gray, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 2%, Non-fibrous 98%			

Reporting Notes:

Analyzed by: Donna M. Blackwell
Date: 3/11/2021



Reviewed by: Donna M. Blackwell



*NAD = no asbestos detected, Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; "Present" or NVA = "No Visible Asbestos" are observations made during a qualitative analysis; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis using Olympus, Model BH-2 microscope, Serial #232420, by EPA 600/R-93/116 per 40 CFR 763 (NVLAP Lab Code 101904-0) and ELAP PLM Analysis Protocol 198.1 for New York friable samples which includes quantitation of any vermiculite observed (198.6 for NOB samples) or EPA 400 pt ct by EPA 600/M4-82-020 (NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.



America's Laboratory

CHAIN OF CUSTODY RECORD

AMERISCI RICHMOND
Job No.:

121031510

AMERISCI RICHMOND
13635 GENITO ROAD
MIDLOTHIAN, VA 23112
PHONE: (804) 763-1200
FAX: (804) 763-1800
TOLL FREE (800) 476-5227
www.amerisci.com

EEC, INC	8514 Six Forks Road, Suite 101 Raleigh, NC 27615	P.O #	SPECIAL INSTRUCTIONS:
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PROJECT INFORMATION	ANALYSIS TYPE	TURNAROUND TIME (X)							AIR FILTER INFORMATION:	
		6-8 HR	12 HR	24 HR	48 HR	72 HR	5 DAY	OTHER		
JOB NAME: FSU- Vance Hall	TEM/AHERA								MCE	
	TEM/LEVEL II								PC	
JOB No.: N-21-011	TEM/7402								25-MM	
	TEM/BULK								37-MM	
JOB MANAGER: Stephen Halyard	TEM/DUST								0.45 UM	
	TEM/WATER								0.85 UM	
JOB DESCRIPTION: Bulk Sampling	PLM			X					OTHER:	
	PCM									
	OTHER									

RESULTS TO: EEC, Inc	INVOICE TO: EEC, Inc	RETURN SAMPLES: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
EMAIL RESULTS: Y	EMAIL ADDRESS: labresults@eecincorporated.com	PHONE: 919-846-1016
WRITTEN REPORT TO: EEC, Inc		FAX: 919-846-1813
COMMENTS:		SITE FAX:
		PAGER/CELL:

LAB ID	SAMPLE ID	SAMPLE LOCATION	START TIME	STOP TIME	TOTAL TIME	LITERS /MIN	TOTAL VOLUME	DATE COLLECTED
	VH-1	Rear of Building - Expansion Caulking						
	VH-2	Near Room 308 Expansion Caulking						
	VH-3	Suite 107-1 Interior Window Caulking						
	VH-4	Suite 108-1 Interior Window Caulking						
	VH-5	Suite 109 Pipe Insulation Wrap w/ Black Mastic						
	VH-6	Suite 111 Pipe Insulation Wrap w/Black Mastic						
	VH-7	Office Beside Ste104 Paper Heat Shield Wrap						
	VH-8	Office Beside Ste104 Paper Heat Shield Wrap						
	VH-9	Room 314-1 Exterior Window Caulking						
	VH-10	Lounge Exterior Window Caulking						
	VH-11	Suite 106-4 Door Caulking						
	VH-12	Suite 108 Interior Door Caulking						
	VH-13	Room 314 Exterior Door Caulking						
	VH-14	Room 314-1 Interior Door Caulking						
	VH-15	Suite 107 Exterior Door Caulking						
	VH-16	Suite 109 Door Caulking						
	VHC-1	Roof Core						
	VHC-2	Roof Core						
	VHC-3	Roof Core						
	VHC-4	Roof Core						

SAMPLED BY: <i>Stephen Halyard</i>	DATE/TIME:	Received By:	DATE/TIME:
RELINQUISHED BY: <i>Steph Halyard</i>	DATE/TIME: 3-10-21	Received in Lab By:	DATE/TIME:

RECEIVED

MAR 11 2021
By *A*

121031510

LAB ID	SAMPLE ID	SAMPLE LOCATION	START TIME	STOP TIME	TOTAL TIME	x LITERS /MIN	= TOTAL VOLUME	DATE COLLECTED
	VHC-5	Roof Core						
	VHC-6	Roof Core - Over Lounge						
	VHC-7	Roof Core - Over Lounge						
	VHF-1	Roof Flashing						
	VHF-2	Roof Flashing						
	VHF-3	Roof Flashing						
	VHF-4	Roof Flashing						
	VHP-1	Roof Vent Penetration						
	VHP-2	Roof Vent Penetration						
	VHP-3	Roof Vent Penetration						
SAMPLED BY: <i>Stephen Halysal</i>			DATE/TIME:	Received By:			DATE/TIME:	
RELINQUISHED BY: <i>Steph Halysal</i>			DATE/TIME: <i>3-10-21</i>	Received in Lab By:			DATE/TIME:	

RECEIVED

MAR 11 2021

By

APPENDIX

NFE TECHNOLOGIES INC.
ASBESTOS AND LEAD PAINT ASSESSMENT REPORTS

NFE Technologies, Inc.
250 Dominion Drive
Morrisville, North Carolina 27560



ASBESTOS AND LEAD PAINT ASSESSMENT

Bryant Dormitory
Fayetteville State University
Fayetteville, North Carolina

Submitted to:

Mr. Steve Martin
University Architect
1200 Murchison Rd., Newbold Station
Fayetteville, North Carolina 28301-4298

April 30, 2002



April 30, 2002

Steve Martin
University Architect
Fayetteville State University
1200 Murchison Road
Fayetteville, NC 28301-4298

Re: Asbestos and Lead Based Paint Identification at Bryant Dormitory
Fayetteville State University
NFE Technologies, Inc. Project No. 01-117

We are pleased to complete and submit to you our report of the results of the building asbestos and lead based paint inspection for the Bryant Dormitory building at Fayetteville State University.

This report was prepared to provide information concerning the presence and extent of asbestos containing materials and lead based paint in the structure.

If you have any questions regarding the information or the recommendations made in this report, please feel free to contact us at your convenience.

We look forward to our continued relationship.

Respectfully submitted,
NFE Technologies, Inc.

A handwritten signature in blue ink, appearing to read 'H. W. Boyd', is written over a horizontal line.

H. W. Boyd, PG, Ph.D.
Senior Environmental Scientist
NC Asbestos Inspector #10788

Report Prepared by: H. W. Boyd

TABLE OF CONTENTS

Table of Contents	3
Project Executive Summary	5
1.0 Project Information	6
1.01 Project Authorization	6
1.02 Project Description	6
1.03 Purpose and Scope of Services	6
2.0 Site Description	7
2.01 Site Location and Description	7
2.02 Field Investigation	8
2.03 Laboratory Analysis	8
Asbestos	8
Lead Paint	9
2.04 Site Conditions	9
3.0 Evaluation and Recommendations	9
3.01 Asbestos Evaluation	10
3.02 Lead Paint Evaluation	10
3.03 Recommendations	10
Asbestos	10
Lead	11
3.04 General Conditions	11
3.05 Procedures Regarding Field Logs, Laboratory Data Sheets And Samples	12

Appendix A

Table of ACM

Asbestos Homogeneous Area Map

Table of All Asbestos Samples

Asbestos Sample Location Map

Table of Lead Based Paint Samples

Lead Based Paint Sample Location Map

Appendix B

Asbestos Laboratory Report

Lead Based Paint Laboratory Report

PROJECT EXECUTIVE SUMMARY

The purpose of this environmental site inspection was to determine the presence and extent of asbestos containing materials (ACM) and lead based paint (LBP) in the Bryant Dormitory building at Fayetteville State University, Fayetteville, NC.

For this purpose, 58 bulk samples were taken of suspect asbestos materials. These materials included flooring, thermal system insulation, wallboard, plaster, and ceiling materials. Multiple samples were collected of each suspect material, as per EPA and OSHA guidelines, and sent to an accredited laboratory for analysis by polarized light microscopy (PLM).

In addition, a total of four paint scrape samples were collected from various interior building components. Samples were sent to an accredited laboratory for analysis by atomic absorption spectrophotometry.

Based on the conditions encountered in the field, and the laboratory analysis of physical samples, it was determined that asbestos exists in the 9" white floor tiles throughout the structure. These tiles are all generally in good condition where they are found exposed, and they are assumed to lie under the newer non-ACM tiles exposed throughout most of the building. All observed ACM floor tiles are non-friable. There is a total of approximately 30,000 square feet of ACM floor tile in the structure. Black mastic associated with the ACM floor tiles also contains asbestos.

All metal doors to the exterior and the stairwells should be considered to be fire doors.

None of the four paint samples were found to contain lead above the HUD action level.

1.0 Project Information

This section discusses the details regarding project authorization, project description, purpose and scope of services provided as agreed in the contract.

1.01 Project Authorization:

This report presents the results of the site assessment conducted within the Bryant Dormitory building located at Fayetteville State University, Fayetteville, North Carolina. The assessment was conducted for FSU to use in planning renovation activities.

1.02 Project Description:

The project building is an L-shaped building of two wings with approximately 45,000 square feet of space on three floors.

Floor plans for the three floors were obtained from the University Internet web page.

1.03 Purpose and Scope of Services:

The purpose of this assessment was to determine the presence of asbestos containing materials (ACM) and lead-based paint (LBP). The information presented in this report may help to reduce the risk of potential asbestos or lead exposure to employees and contractors and to aid in the proper disposal of waste and debris generated during maintenance work on the site.

The following are the scope of services included and performed for this project:

- Identify suspect ACM within the structure

- Take sufficient samples of suspect ACM to determine the presence or absence of asbestos
- Identify building components which could be coated with LBP
- Take representative paint samples to determine the likelihood of LBP within the structure
- Prepare a report presenting all data, observations and recommendations.

2.0 Site Description

The following paragraphs describe the building and conditions encountered within the structure during the investigation.

2.01 Site Location and Description:

The site considered in this evaluation is a dormitory located at Fayetteville State University, Fayetteville, North Carolina. There are three main floors of living space in each of two wings. Each floor contains student rooms and several communal bathrooms. The main floor also contains a lounge area.

The structure, constructed in the 1960's, is of masonry construction with brick exterior walls and concrete block interior walls. Floors are concrete throughout, and are largely covered with floor tile, with ceramic tile flooring in the bathrooms. The roof is flat and was not considered for sampling during this survey. Ceilings are plaster, except in the office areas, restrooms and basement, where there are dropped ceilings with lay-in ceiling panels. Pipes throughout the structure were observed to be insulated with fiberglass insulation. No insulation was observed on air ducts in the bathroom areas.

2.02 Field Investigation:

The asbestos survey was performed on April 15, 2002 by Harry W. Boyd, Ph.D., P.G., who holds North Carolina Asbestos Inspector Accreditation #10788, and Management Planner Accreditation #20539. All sampling was done according to the EPA AHERA guidelines (40 CFR 763), as referenced in the OSHA Construction Standard (29 CFR 1926.1101). All materials considered suspect for asbestos were identified in the field and samples were collected of each material as per OSHA guidelines. The number of samples was determined by the number and type of suspect materials observed. Samples were placed immediately into plastic bags for transport to the laboratory. The "Table of All Asbestos Samples" in Appendix A contains a complete list of all materials sampled and tested for asbestos as well as listing all sample numbers. In addition, all sampling locations are plotted on floor plan maps of the structure.

Paint scrape samples were obtained from typical painted surfaces throughout the structure. These samples were not collected according to any regulatory guidelines, but were collected in order to give an indication as to the possible presence of lead based paint (LBP). Paint samples were collected by scraping areas of loose or peeling paint. Paint samples were placed in sealed plastic bags for shipment to the laboratory. The "Table of Paint Samples" in Appendix A contains a complete list of all paint surfaces sampled. In addition, all sampling locations are plotted on floor plan maps of the structure.

2.03 Laboratory Analysis:

Asbestos

All asbestos samples were collected in the field by an accredited asbestos inspector. A total of 58 samples were collected for laboratory analysis. OSHA sampling protocols mandate at least three negative samples to prove most materials as non-asbestos containing, so three samples were collected of most suspect materials. Surfacing materials, such as plaster or other sprayed-on or troweled-on materials require **three**.

five or seven samples according to the extent of the material. Laboratory analysis was done according to EPA test method EPA/600/R-93/116 for Polarized Light Microscopy (PLM) by an NVLAP-accredited laboratory. A copy of the complete asbestos laboratory report is included in Appendix B. As a cost saving measure the laboratory was instructed to stop analysis after a positive result for any group of three samples, as one positive sample is all that is necessary to prove a material as asbestos-containing.

Lead Paint

A total of four paint samples were collected for laboratory analysis. One sample was collected from each surface to be tested. Laboratory analysis was done according to EPA test method EPA/3050B/7420 for analysis of lead in paint by Atomic Absorption Spectrophotometry. A copy of the complete lead laboratory report is included in Appendix B.

2.04 Site Conditions:

The interior of the structure appears to be largely original, with some minor replacement of ceiling panels, and with some remodeling of the bathrooms. Most flooring, ceiling and wall materials in the structure were observed to be in good condition. Roofing materials were not addressed during this survey.

3.0 Evaluation and Recommendations

The recommendations made in this report are based on the data obtained during the field investigation program and laboratory analysis.

3.01 Asbestos Evaluation:

Sampling and laboratory analysis has identified one type of building material that contains asbestos. This material is floor tile and associated mastic throughout the structure.

The 9" white floor tiles exposed in the RA office area are ACM. This tile can be observed running under the newer tile overlayment, and is thus assumed to continue throughout the building. All ACM floor tile and associated mastic are not friable and are presently in good condition. Approximately 30,000 square feet of ACM tile can be observed or assumed under non-ACM tiles.

While not sampled during this survey, the metal doors to the exterior should be considered to be fire doors and assumed to contain asbestos. There are approximately 14 assumed fire doors in the building.

3.02 Lead Paint Evaluation:

Lead laboratory results indicate that none of the four paint samples contain lead in quantities greater than 0.5%, the limit for LBP under HUD guidelines. OSHA, however, does not recognize a definition for LBP, but limits worker exposure to lead. All four paint samples collected from interior surfaces contained lead below detection limits.

3.03 Recommendations:

Asbestos

ACM flooring that is undamaged can be left in place. There is little inherent danger to occupants as the materials are non-friable and generally well adhered to the substrate. New flooring (vinyl, tile, and carpeting) may be installed over the ACM flooring materials, but if the ACM flooring materials are removed they must be disposed of as asbestos waste. Loose tiles should be reapplied or replaced.

Removal of ACM flooring materials may be done by a flooring contractor (not a general contractor) or by O & M trained personnel trained in proper removal techniques. This is in accordance with OSHA interpretations of negative exposure assumptions. Flooring removed under these conditions would still need to be properly disposed of as asbestos waste. Any removal by other contractors would require accredited personnel using personal protection (disposable clothing, respirators), and may require containment of portions of the building.

Assumed ACM fire doors may be left in place. These doors should not be drilled or cut. Replacement of the doors should be done by removing the doors intact, and they should be disposed of as asbestos waste unless tested and proven to be non-ACM.

Lead

Removal of lead based paint should be done by accredited personnel using accepted removal techniques. OSHA does not have any minimum concentration to define LBP. OSHA mainly addresses the issue in the OSHA Lead in Construction Standard, 29 CFR 1926.62, which outlines acceptable work practices to minimize worker exposure to lead.

3.04 General Conditions:

The analysis, conclusions and recommendations submitted in this report are based on the field work previously outlined and the samples collected at the places shown on the attached floor plans. This report does not reflect inhomogeneities that may occur within materials.

This report has been prepared in accordance with generally accepted procedures within the environmental industry and makes no warranties, either expressed or implied, as to

the professional advice under the terms of the agreement and included in this report. The recommendations contained herein are made with the understanding that not all asbestos may have been discovered. Within all buildings are hidden spaces that may not be immediately obvious to a professional who is not intimately familiar with the building and who has only a limited access in the building. No sampling requiring destructive sampling was done during this survey. In addition, no effort was made to sample every painted surface, but rather to give an overall indication as to the likelihood of the presence of lead-based paint.

3.05 Procedures Regarding Field Logs, Laboratory Data Sheets and Samples:

In the process of obtaining and testing samples and preparing this report, procedures are followed that represent reasonable and accepted practice in the field of environmental inspections.

All samples collected are listed on field forms. Along with the sample numbers is a complete description of the materials sampled, condition of the material, extent of the material, and damage observed. In addition, all sampling sites are plotted on a floor plan map of the building. Where interior construction is missing from supplied maps, sketch maps (not to scale) are produced in the field.

This report is prepared for the exclusive use of Fayetteville State University. The actual quantities of ACM determined during the detailed design of a removal project may differ from the quantities of materials estimated during this survey.

Appendix A

Table of ACM
Asbestos Homogeneous Area Maps
Table of All Asbestos Samples
Asbestos Sample Location Maps
Table of Lead Based Paint Samples
Lead Based Paint Sample Location Maps

**Confirmed Asbestos Containing Materials
Sampled April 15, 2002**

Floor	Room/Area	HA#	Type	Description	Size*	Cond.	Friable	Asb 1 %	Asb 2 %
All	Throughout	FT2	M1	9" white floor tile	30,000 sf	G	N	Chrys	6
			M1	black mastic for FT2	30,000 sf	P	N	Chrys	8
		FD1	M	fire doors	14 ea	G	N	(assumed ACM)	

ACBM Type

S=Surfacing
T=Thermal Insulation
M=Miscellaneous
M1=Category I Nonfriable Misc.
M2=Category II Nonfriable Misc.

Friable

Y=Friable
N=Not Friable

HA

Homogeneous Area Designation

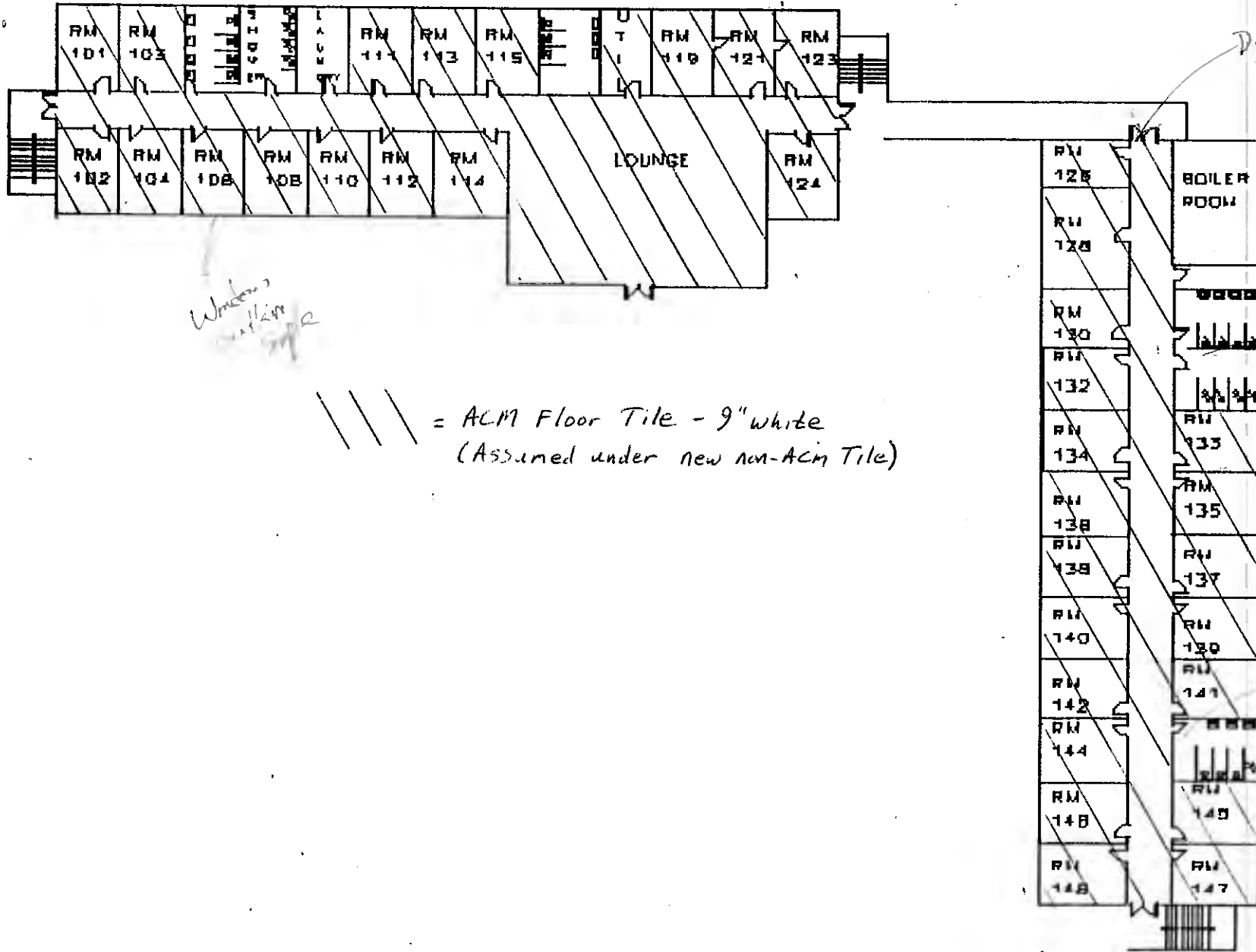
Condition

G=good
F=fair
P=poor

Asb (Asbestos Type)

Chrys.=Chrysotile
Amos.=Amosite
Trem.=Tremolite/Actinolite
Croc.=Crocidolite

Homogeneous Area Map
Bryant Hall
1st Floor



*Windows
 11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100*

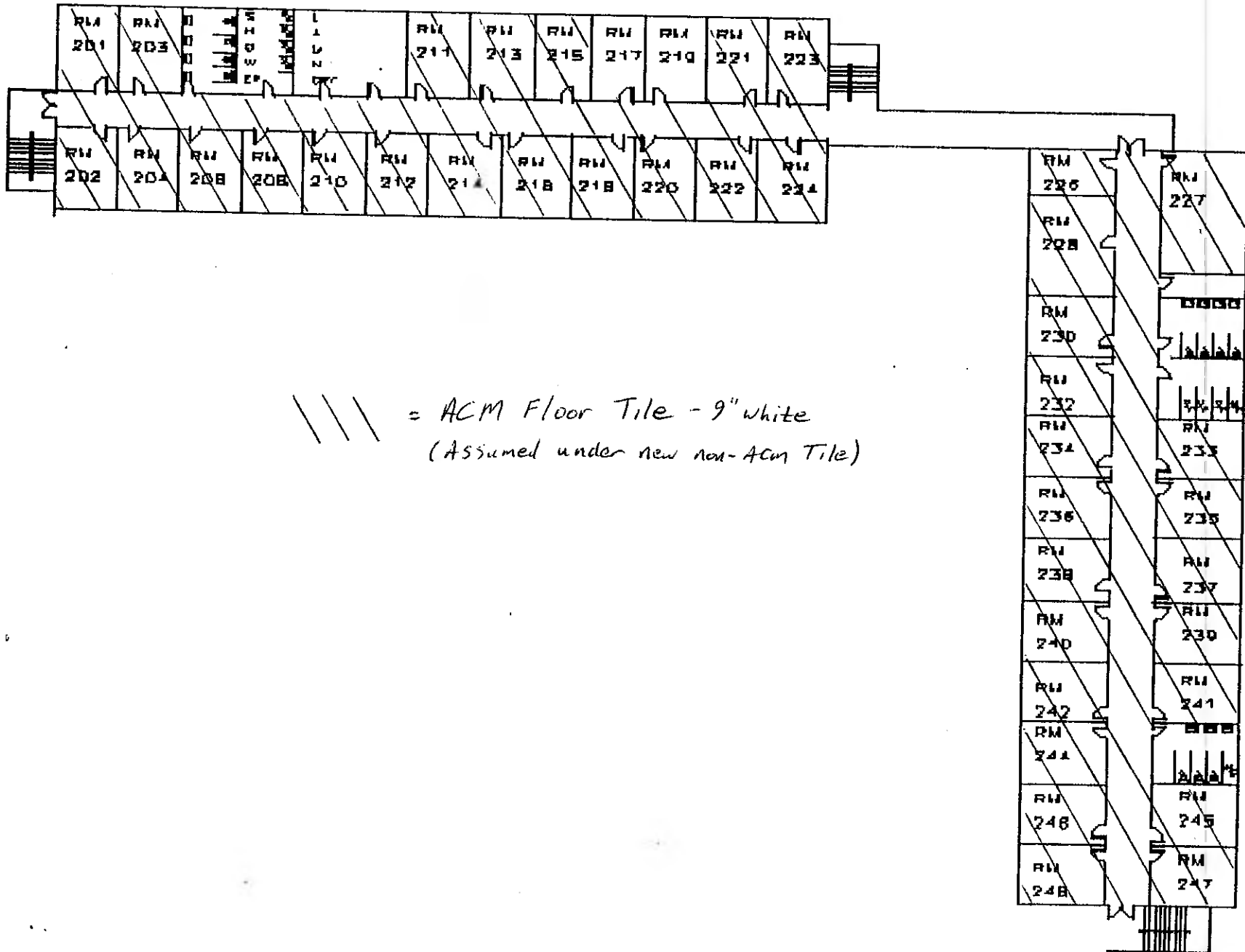
*/// = ACM Floor Tile - 9" white
 (Assumed under new non-ACM Tile)*

*Door Calk
 3-5-145R*

*F? 145
 Plug Strip*

*145
 Plug Strip*

Homogeneous Area Map
Bryant Hall
2nd Floor

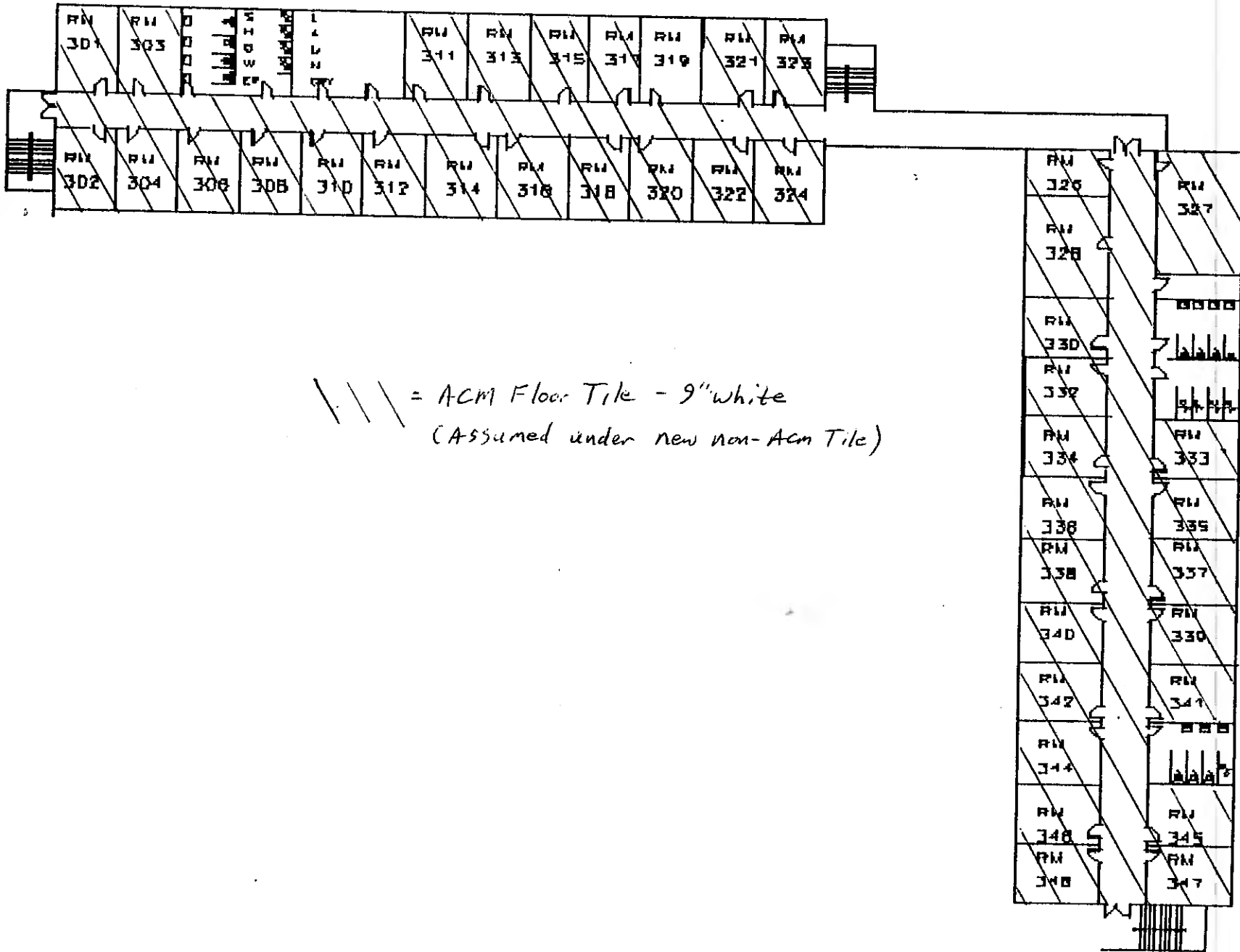


/// = ACM Floor Tile - 9" white
 (Assumed under new non-ACM Tile)

Homogeneous Area Map

Bryant Hall

3rd Floor



/// = ACM Floor Tile - 9" white
(Assumed under new non-ACM Tile)

**All Suspect Asbestos Containing Materials
Sampled April 15, 2002**

Floor	Room/Area	HA#	Type	Material Description	Size	Sample Nos.	ACM
1, 2, 3	throughout	HP1	S	hard plaster ceilings & restroom walls	40000 sf	HP1-1, HP1-2, HP1-3, HP1-4 HP1-5, HP1-6, HP1-7	N
	restroom ceilings	CT1	M	2' x 2' ceiling panels w/ gouge & pinhole pattern	4000 sf	CT1-1, CT1-2, CT1-3	N
	throughout	FT1	M1	12" blue floor tile w/ specks brown mastic for FT1	12000 sf 12000 sf	FT1-1A, FT1-2A, FT1-3A FT1-1B, FT1-2B, FT1-3B	N N
	storage areas	WB1	M	sheetrock wallboard white spackle for WB1	1000 sf 250 sf	WB1-1A, WB1-2A, WB1-3A WB1-1B, WB1-2B, WB1-3B	N N
	throughout	FT2	M1	9" white floor tile w/ specks black mastic for FT2	30000 sf 30000 sf	FT2-1A, FT2-2A, FT2-3A FT2-1B, FT2-2B, FT2-3B	Y Y
	throughout	FT3	M1	12" beige floor tile w/ specks brown mastic for FT3	8000 sf 8000 sf	FT3-1A, FT3-2A, FT3-3A FT3-1B, FT3-2B, FT3-3B	N N
	throughout	FT4	M1	12" tan floor tile w/ specks brown mastic for FT4	5000 sf 5000 sf	FT4-1A, FT4-2A, FT4-3A FT4-1B, FT4-2B, FT4-3B	N N
	throughout	CB1	M1	black cove base brown mastic for CB1	5000 lf 5000 lf	CB1-1A, CB1-2A, CB1-3A CB1-1B, CB1-2B, CB1-3B	N N

ACBM Type

S=Surfacing

T=Thermal Insulation

M=Miscellaneous

M1=Category I Nonfriable Misc.

M2=Category II Nonfriable Misc.

HA

Homogeneous Area Designation

ACM

Y=Material is ACM

N=Material is Not ACM

Bryant Dormitory, FSU

**All Suspect Asbestos Containing Materials
Sampled April 15, 2002**

Floor	Room/Area	HA#	Type	Material Description	Size	Sample Nos.	ACM
1	Lounge	CT2	M	2' x 4' ceiling panels w/ gouge & pinhole pattern	1100 sf	CT2-1, CT2-2, CT2-3	N
		PF1	T	hard pipe fitting insulation	25 ea	PF1-1, PF1-2, PF1-3	N
2	Room 219	FT51	M1	12" brown wood grain floor tile clear mastic for FT5	75 sf 75 sf	FT5-1A, FT5-2A, FT5-3A FT5-1B, FT5-2B, FT5-3B	N N
All		FD1	M	fire doors	14 ea		(assumed ACM)

ACBM Type

S=Surfacing

T=Thermal Insulation

M=Miscellaneous

M1=Category I Nonfriable Misc.

M2=Category II Nonfriable Misc.

HA

Homogeneous Area Designation

ACM

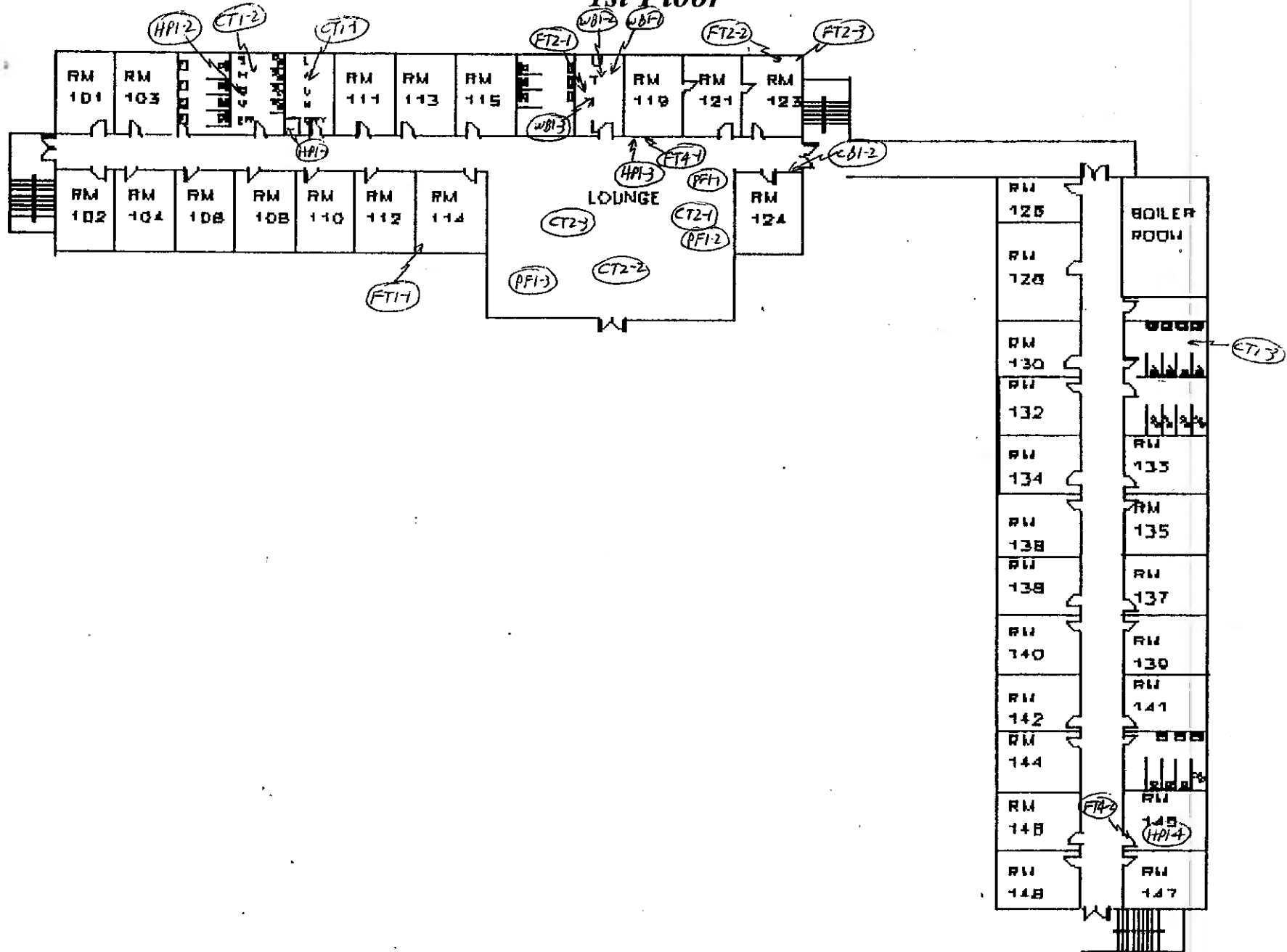
Y=Material is ACM

N=Material is Not ACM

Asbestos Sample Location Map

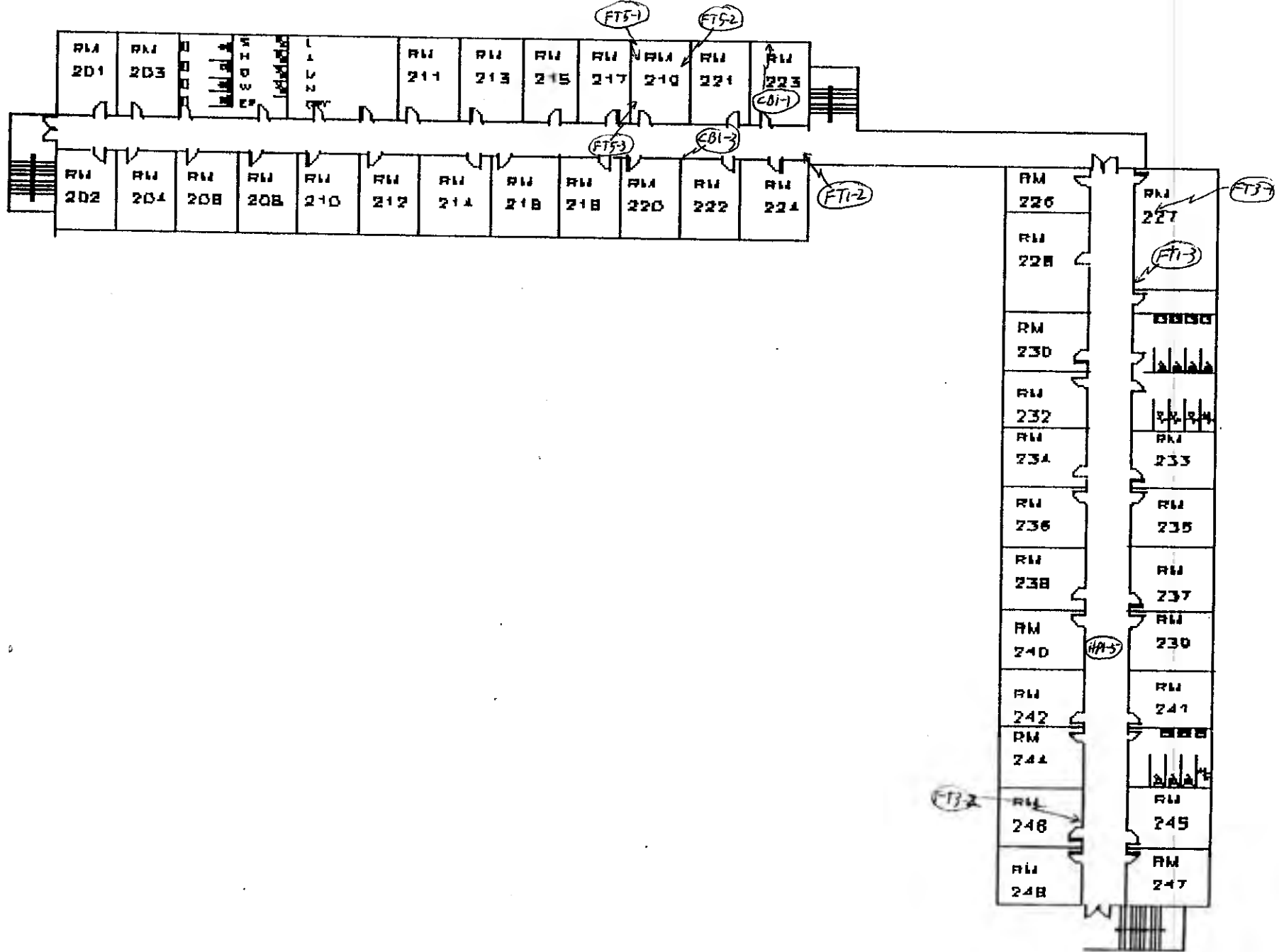
Bryant Hall

1st Floor



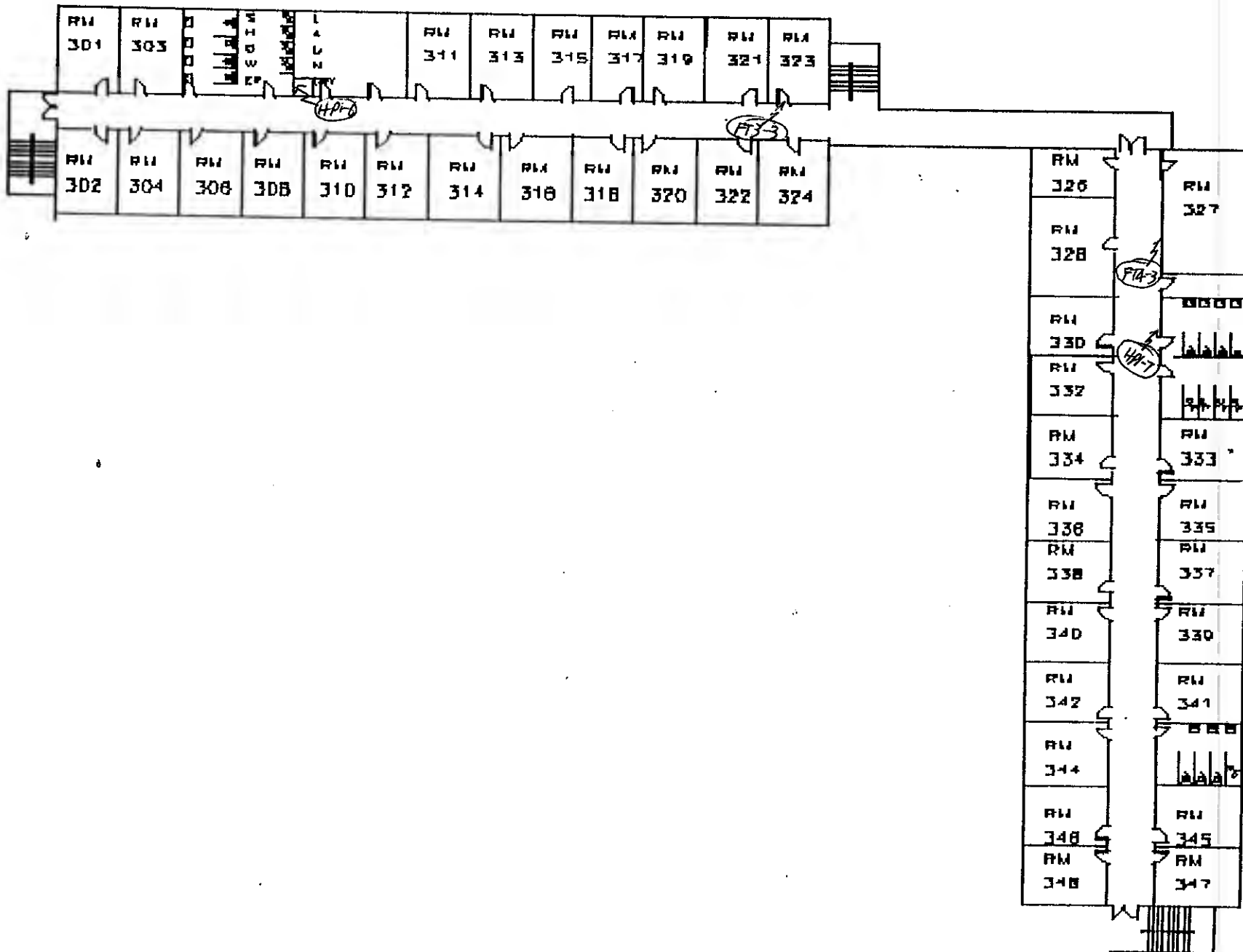
Asbestos Sample Location Map

**Bryant Hall
2nd Floor**



Asbestos Sample Location Map

Bryant Hall
3rd Floor



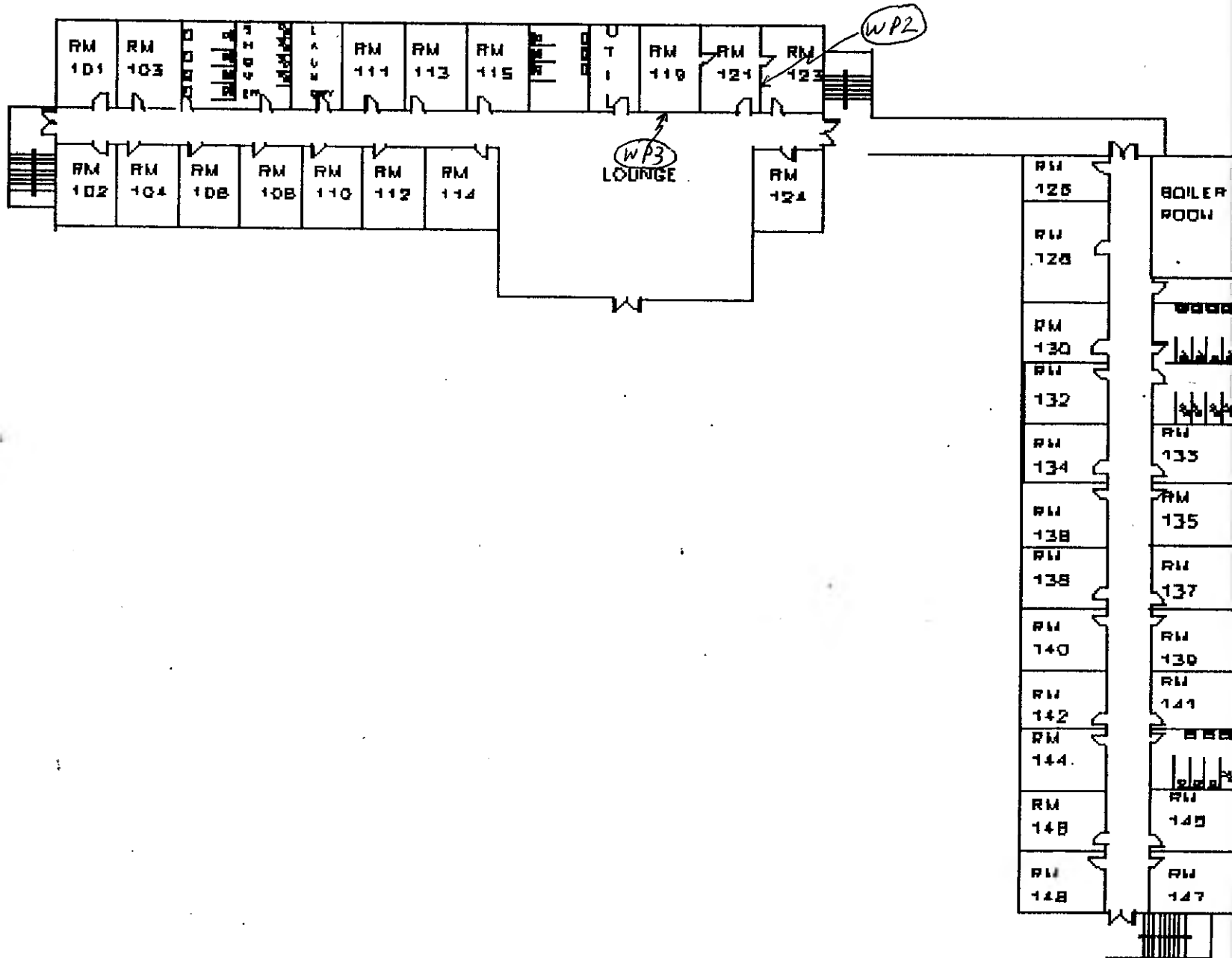
Painted Surfaces
Sampled April 15, 2002
(see floor plan maps for sample locations)

<u>Floor</u>	<u>Sample Number</u>	<u>Comments</u>	<u>Lab Results (Wt. %)</u>
2	Bryant WP1	paint on metal box in hallway, South Wing	<0.005
3	Bryant CP1	painted plaster ceiling, hallway of East Wing	<0.005
1	Bryant WP2	paint on concrete block wall, room 123	<0.005
	Bryant WP3	painted concrete post, hallway of East Wing	<0.004

Paint Sample Location Map

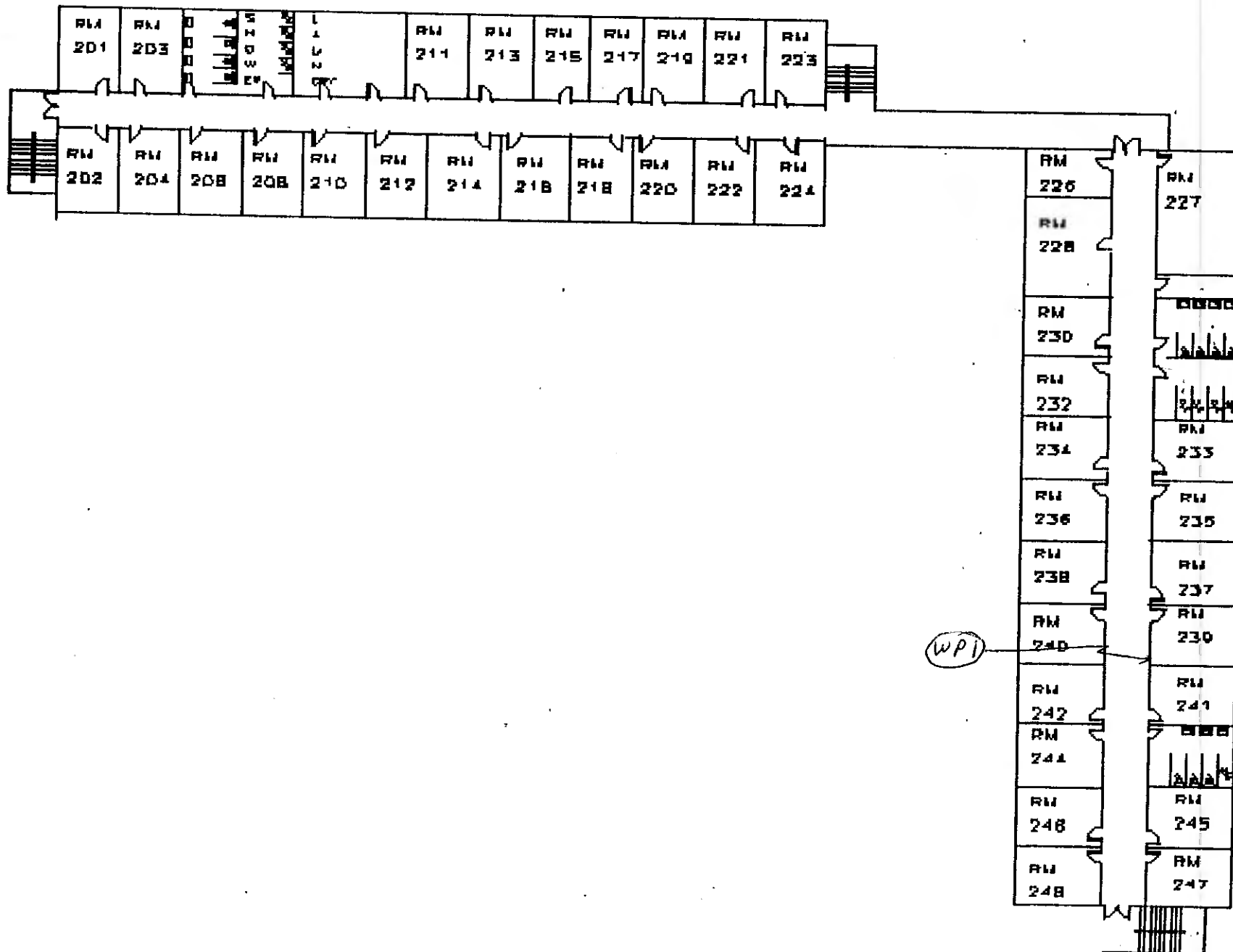
Bryant Hall

1st Floor



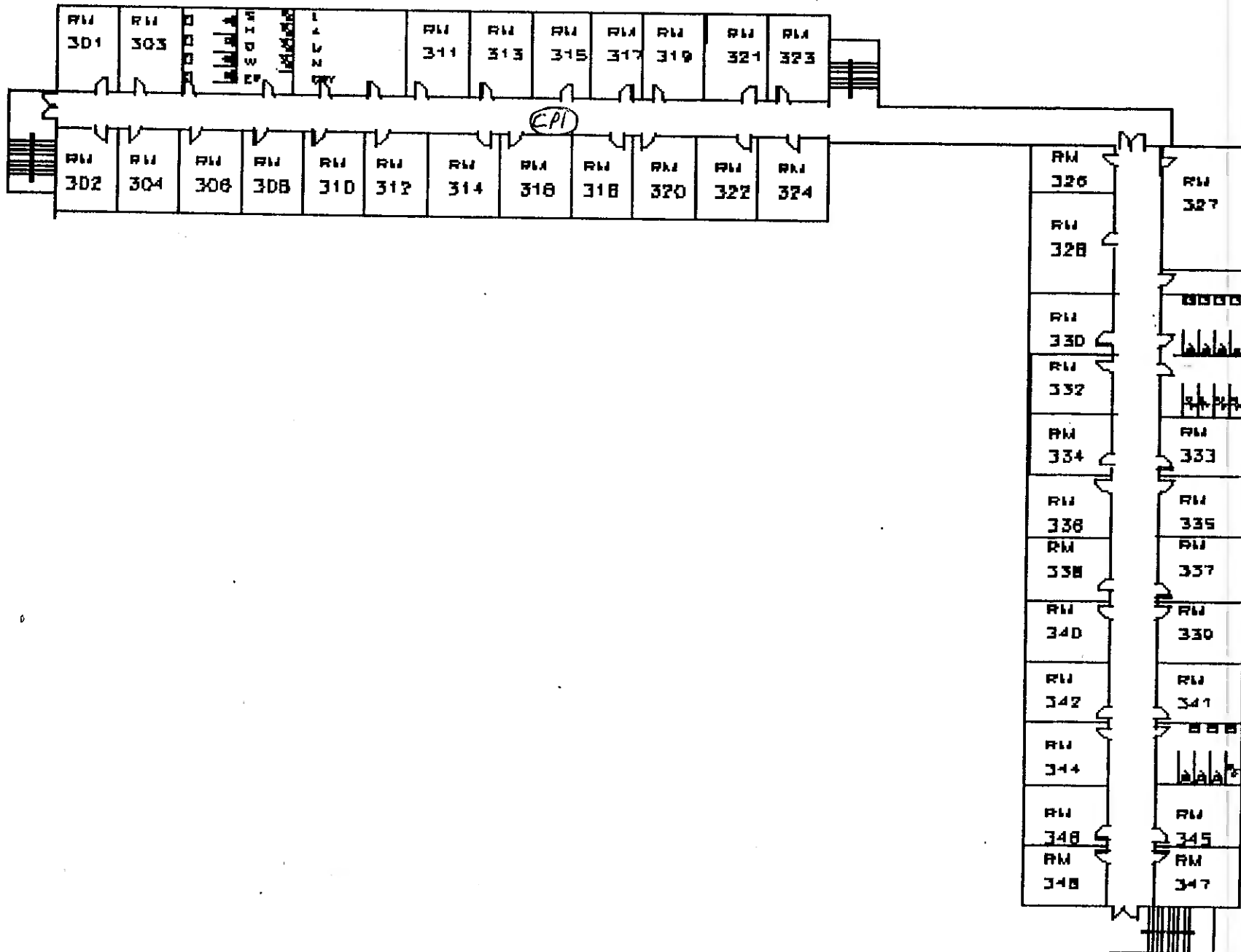
Paint Sample Location Map

**Bryant Hall
2nd Floor**



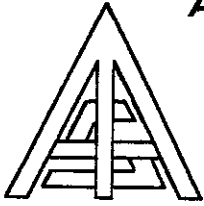
Paint Sample Location Map

Bryant Hall
3rd Floor



Appendix B

**Asbestos Laboratory Report
Lead Based Paint Laboratory Report**



**ASBESTOS ANALYSIS AND
INFORMATION SERVICE, INC.**

P.O. Box 837
Four Oaks, North Carolina 27524
919-963-2898

Asbestos Analysis and Information Service, Inc.
Job # 15085 - Bulk Sample Analyses

Client:

NFE Technologies, Inc.
Morrisville, NC

Bill Boyd

01-117

4/29/02



SAMPLE CUSTODY RECORD

PROJECT NUMBER: 01-117 Bryant Inn

SAMPLING DATE: 4-15-02

COLLECTED BY: H W Boyd

LABORATORY: AAIS

SAMPLE LOT NUMBER: 15085

Sample Number	Laboratory Number	Sample Description	Analysis Requested/ Comments
FT1-1A	1	Floor tile	plm - positive step
B	2	mastic	
FT1-2A	3	Floor tile	
B	4	mastic	
FT1-3A	5	"	
B	6	"	
PT2-1A	7	Floor tile	
B	8	mastic	
-2A	9	" "	NA
B	10	" "	NA
-3A	11	" "	NA
B	12	" "	NA
PT3-1A	13	Floor tile	
B	14	mastic	
-2A	15	" "	
B	16	" "	
-3A	17	" "	
B	18	" "	
PT4-1A	19	Floor tile	
B	20	mastic	
-2A	21	" "	
B	22	" "	
-3A	23	" "	
B	24	" "	
PT5-1A	25	Floor tile	

SAMPLES RELINQUISHED BY:
 NAME: H W Boyd
 AFFILIATION: NFE

DATE AND TIME: 4-16-02
 SIGNATURE: [Signature]

SAMPLES TRANSPORTED BY: Heal
 COMPANY NAME: _____

DATE AND TIME: _____

SAMPLES RECEIVED BY:
 NAME: WESTBROOK
 AFFILIATION: AAIS Inc

DATE AND TIME: 4-18-02
 SIGNATURE: [Signature]

NFE Technologies, Inc.
Engineers & Contractors
Design - Build
Civil • Construction Management
Geotechnical • Environmental



250 Dominion Drive
Morrisville, NC 27560
(919) 469-4800
Fax: (919) 319-8400
E-mail: mailbox@nfetech.com
http://www.nfetech.com

SAMPLE CUSTODY RECORD

PROJECT NUMBER: 01-117 Bryant dorm

SAMPLING DATE: 4/10/02

COLLECTED BY: H. w. Boyd

LABORATORY: AAIS

SAMPLE LOT NUMBER: 15085

Sample Number	Laboratory Number	Sample Description	Analysis Requested/ Comments
PTS-10	26	mastic	Plm - Positive Stop
-2A	27	Floor tile	
B	28	mastic	
-3A	29	"	
D	30	"	
HP1-1	31	Hard Plaster	
-2	32	"	
-3	33	"	
-4	34	"	
-5	35	"	
-6	36	"	
-7	37	"	
CT1-1	38	ceiling tile	
-2	39	"	
-3	40	"	
CT2-1	41	ceiling tile	
-2	42	"	
-3	43	"	
CB1-1A	44	Core base	
B	45	mastic	
-2A	46	"	
B	47	"	
-3A	48	"	
D	49	"	
WB1-1A	50	Sheetrock wallboard	

SAMPLES RELINQUISHED BY:
NAME: H. w. Boyd
AFFILIATION: NFE

DATE AND TIME: 4/16/02
SIGNATURE: [Signature]

SAMPLES TRANSPORTED BY: Hand
COMPANY NAME: _____

DATE AND TIME: _____

SAMPLES RECEIVED BY:
NAME: WESTBROOK
AFFILIATION: AAIS

DATE AND TIME: 4-18-02
SIGNATURE: [Signature]

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.
P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>FT1-1A</u>	AAIS Sample No.: <u>1</u>
Analyst: <u>sw</u>	Date: <u>4/22/02</u>
Description: <u>purple floor tile</u>	

ASBESTOS: present not detected

Chrysotile: _____ %
Amosite: _____ %
other: _____ ; _____ %

total ASBESTOS: nd %

OTHER FIBROUS MATERIAL:

fbgls/min.wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ ; _____ %
other: _____ ; _____ %

total other fibrous: _____ %

NONFIBROUS MATERIAL:


type: calcite ; 35 %
type: vinyl ; 65 %
type: _____ ; _____ %

total nonfibrous: 100 %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

* Since most of the vinyl floor tiles marketed in the late sixties to mid-seventies contained asbestos, and because some of the asbestos was milled so fine as to be below the detection limits of current PLM techniques, the presence of any detectable asbestos by PLM is an indication the tile is ACM.

Analyst Signature 

Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.

P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT1-1B</u>	AAIS Sample No.:	<u>2</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray mastic</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ;	<u> </u> %
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ;	<u> </u> %
other:	<u> </u> ;	<u> </u> %
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u> carbonate glue </u> ;	<u> 100 </u> %
type:	<u> </u> ;	<u> </u> %
type:	<u> </u> ;	<u> </u> %
		total nonfibrous: <u> 100 </u> %

comments:

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Analyst Signature



Stephen H. Westbrook, President

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P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>FT1-2B</u>	AAIS Sample No.: <u>4</u>
Analyst: <u>sw</u>	Date: <u>4/22/02</u>
Description: <u>gray mastic</u>	

ASBESTOS: present x not detected

Chrysotile: _____ %
Amosite: _____ %
other: _____ ; _____ %

total ASBESTOS: nd %

OTHER FIBROUS MATERIAL:

fbgls/min. wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ ; _____ %
other: _____ ; _____ %

total other fibrous: _____ %

NONFIBROUS MATERIAL:

type: carbonate glue ; 100 %
type: _____ ; _____ %
type: _____ ; _____ %

total nonfibrous: 100 %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Analyst Signature 
Stephen H. Westbrook, President

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P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>FT1-3A</u>	AAIS Sample No.: <u>5</u>
Analyst: <u>sw</u>	Date: <u>4/22/02</u>
Description: <u>purple floor tile</u>	

ASBESTOS: present x not detected

Chrysotile: _____ %
Amosite: _____ %
other: _____ %

total ASBESTOS: nd %

OTHER FIBROUS MATERIAL:

fbgls/min.wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ %
other: _____ %

total other fibrous: _____ %

NONFIBROUS MATERIAL:


type: calcite ; 35 %
type: vinyl ; 65 %
type: _____ ; _____ %

total nonfibrous: 100 %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>FT1-3B</u>	AAIS Sample No.: <u>6</u>
Analyst: <u>sw</u>	Date: <u>4/22/02</u>
Description: <u>gray mastic</u>	

ASBESTOS: <u> </u> present <u> x </u> not detected
Chrysotile: _____ %
Amosite: _____ %
other: _____ ; _____ %
total ASBESTOS: <u> nd </u> %


OTHER FIBROUS MATERIAL:
fbgls/min.wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ ; _____ %
other: _____ ; _____ %
total other fibrous: _____ %

NONFIBROUS MATERIAL:
type: <u>carbonate glue</u> ; <u>100</u> %
type: _____ ; _____ %
type: _____ ; _____ %
total nonfibrous: <u> 100 </u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Analyst Signature 
Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.

P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT2-1B</u>	AAIS Sample No.:	<u>8</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>black mastic</u>		

ASBESTOS:	<u> x </u> present	<u> </u> not detected
Chrysotile:	<u> 8 </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
total ASBESTOS: <u> 8 </u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
total other fibrous: <u> </u> %		

NONFIBROUS MATERIAL:		
type:	<u> tar matrix </u>	<u> 92 </u> %
type:	<u> </u>	%
type:	<u> </u>	%
total nonfibrous: <u> 92 </u> %		

comments:

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Analyst Signature



Stephen H. Westbrook, President


ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.
P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u> Client Sample No.: <u>FT3-1A</u> Analyst: <u>sw</u> Description: <u>beige floor tile</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>13</u> Date: <u>4/22/02</u>
ASBESTOS: <u> </u> present <u> x </u> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ ; _____ % <div style="text-align: right;">total ASBESTOS: <u> nd </u> %</div>	
OTHER FIBROUS MATERIAL: fbgls/min.wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ ; _____ % other: _____ ; _____ % <div style="text-align: right;">total other fibrous: _____ %</div>	
NONFIBROUS MATERIAL: type: <u>calcite</u> ; <u> 35 </u> % type: <u>vinyl</u> ; <u> 65 </u> % type: _____ ; _____ % <div style="text-align: right;">total nonfibrous: <u> 100 </u> %</div>	
comments: _____	

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Analyst Signature 

Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.
P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT3-1B</u>	AAIS Sample No.:	<u>14</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>clear/yellow glue</u>		

ASBESTOS: present not detected

Chrysotile: _____ %
Amosite: _____ %
other: _____ ; _____ %

total ASBESTOS: nd %

OTHER FIBROUS MATERIAL:

fbgls/min. wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ ; _____ %
other: _____ ; _____ %

total other fibrous: _____ %

NONFIBROUS MATERIAL:

type: carbonate glue ; 100 %
type: _____ ; _____ %
type: _____ ; _____ %

total nonfibrous: 100 %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u> Client Sample No.: <u>FT3-2A</u> Analyst: <u>sw</u> Description: <u>beige floor tile</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>15</u> Date: <u>4/22/02</u>
ASBESTOS: <u> </u> present <u> x </u> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ ; _____ %	
total ASBESTOS: <u> nd </u> %	
OTHER FIBROUS MATERIAL:	
fbgls/min. wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ ; _____ % other: _____ ; _____ %	
total other fibrous: _____ %	
NONFIBROUS MATERIAL:	
type: <u> calcite </u> ; <u> 35 </u> % type: <u> vinyl </u> ; <u> 65 </u> % type: _____ ; _____ %	
total nonfibrous: <u> 100 </u> %	
comments: _____	

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BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT3-2B</u>	AAIS Sample No.:	<u>16</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>clear/yellow glue</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u> carbonate glue </u> ; <u> 100 </u>	%
type:	<u> </u> ; <u> </u>	%
type:	<u> </u> ; <u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u> Client Sample No.: <u>FT3-3A</u> Analyst: <u>sw</u> Description: <u>beige floor tile</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>17</u> Date: <u>4/22/02</u>
ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ ; _____ %	
total ASBESTOS: <u>nd</u> %	
OTHER FIBROUS MATERIAL:	
fbgls/min.wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ ; _____ % other: _____ ; _____ %	
total other fibrous: _____ %	
NONFIBROUS MATERIAL:	
type: <u>calcite</u> ; <u>35</u> % type: <u>vinyl</u> ; <u>65</u> % type: _____ ; _____ %	
total nonfibrous: <u>100</u> %	
comments: _____	

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT3-3B</u>	AAIS Sample No.:	<u>18</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>clear/yellow glue</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u> carbonate glue </u> ; <u> 100 </u>	%
type:	<u> </u> ; <u> </u>	%
type:	<u> </u> ; <u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-1A</u>	AAIS Sample No.:	<u>19</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>beige floor tile</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ;	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ;	%
other:	<u> </u> ;	%
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type: calcite	<u> </u>	35 %
type: vinyl	<u> </u>	65 %
type:	<u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-1B</u>	AAIS Sample No.:	<u>20</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>yellow mastic</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %


OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u>carbonate glue</u>	<u> 100 </u> %
type:	<u> </u>	%
type:	<u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments:

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-2A</u>	AAIS Sample No.:	<u>21</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>beige floor tile</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	<u> </u> %
Amosite:	<u> </u>	<u> </u> %
other:	<u> </u> ; <u> </u>	<u> </u> %
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	<u> </u> %
cellulose:	<u> </u>	<u> </u> %
synthetics:	<u> </u>	<u> </u> %
other:	<u> </u> ; <u> </u>	<u> </u> %
other:	<u> </u> ; <u> </u>	<u> </u> %
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u> calcite </u>	<u> 35 </u> %
type:	<u> vinyl </u>	<u> 65 </u> %
type:	<u> </u>	<u> </u> %
		total nonfibrous: <u> 100 </u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-2B</u>	AAIS Sample No.:	<u>22</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>yellow mastic</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____ ; _____	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	_____	%
cellulose:	_____	%
synthetics:	_____	%
other:	_____ ; _____	%
other:	_____ ; _____	%
		total other fibrous: _____ %

NONFIBROUS MATERIAL:		
type:	<u>carbonate glue</u> ; _____	<u>100</u> %
type:	_____ ; _____	%
type:	_____ ; _____	%
		total nonfibrous: <u>100</u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-3A</u>	AAIS Sample No.:	<u>23</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>beige floor tile</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____;	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	_____	%
cellulose:	_____	%
synthetics:	_____	%
other:	_____;	%
other:	_____;	%
		total other fibrous: _____ %

NONFIBROUS MATERIAL:		
type:	<u>calcite</u>	<u>35</u> %
type:	<u>vinyl</u>	<u>65</u> %
type:	_____	_____ %
		total nonfibrous: <u>100</u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-3B</u>	AAIS Sample No.:	<u>24</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>yellow mastic</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other: _____ ; _____	_____	%
total ASBESTOS: <u>nd</u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	_____	%
cellulose:	_____	%
synthetics:	_____	%
other: _____ ; _____	_____	%
other: _____ ; _____	_____	%
total other fibrous: _____ %		

NONFIBROUS MATERIAL:		
type: <u>carbonate glue</u> ; <u>100</u>	_____	%
type: _____ ; _____	_____	%
type: _____ ; _____	_____	%
total nonfibrous: <u>100</u> %		

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>FT5-1A</u>	AAIS Sample No.: <u>25</u>
Analyst: <u>sw</u>	Date: <u>4/22/02</u>
Description: <u>brown floor tile</u>	

ASBESTOS: present not detected

Chrysotile: _____ %
Amosite: _____ %
other: _____ ; _____ %

total ASBESTOS: nd %

OTHER FIBROUS MATERIAL:

fbgls/min.wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ ; _____ %
other: _____ ; _____ %

total other fibrous: _____ %

NONFIBROUS MATERIAL:

type: calcite ; 35 %
type: vinyl ; 65 %
type: _____ ; _____ %

total nonfibrous: 100 %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT5-1B</u>	AAIS Sample No.:	<u>26</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>clear yellow mastic</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u>carbonate glue</u>	<u> 100 </u> %
type:	<u> </u>	<u> </u> %
type:	<u> </u>	<u> </u> %
		total nonfibrous: <u> 100 </u> %

comments:

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Analyst Signature



Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.

P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT5-2A</u>	AAIS Sample No.:	<u>27</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>brown floor tile</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____ ; _____	%
total ASBESTOS: <u>nd</u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	_____	%
cellulose:	_____	%
synthetics:	_____	%
other:	_____ ; _____	%
other:	_____ ; _____	%
total other fibrous: _____ %		

NONFIBROUS MATERIAL:		
type:	<u>calcite</u>	; <u>35</u> %
type:	<u>vinyl</u>	; <u>65</u> %
type:	_____	; <u> </u> %
total nonfibrous: <u>100</u> %		

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT5-2B</u>	AAIS Sample No.:	<u>28</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>clear yellow mastic</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ;	<u> </u> %
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ;	<u> </u> %
other:	<u> </u> ;	<u> </u> %
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u> carbonate glue </u> ;	<u> 100 </u> %
type:	<u> </u> ;	<u> </u> %
type:	<u> </u> ;	<u> </u> %
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u> Client Sample No.: <u>FT5-3A</u> Analyst: <u>sw</u> Description: <u>brown floor tile</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>29</u> Date: <u>4/22/02</u>
ASBESTOS: <u> </u> present <u> x </u> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ ; _____ % <div style="text-align: right;">total ASBESTOS: <u> nd </u> %</div>	
OTHER FIBROUS MATERIAL: fbgls/min. wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ ; _____ % other: _____ ; _____ % <div style="text-align: right;">total other fibrous: _____ %</div>	
NONFIBROUS MATERIAL: type: <u> calcite </u> ; <u> 35 </u> % type: <u> vinyl </u> ; <u> 65 </u> % type: _____ ; _____ % <div style="text-align: right;">total nonfibrous: <u> 100 </u> %</div>	
comments: _____	

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT5-3B</u>	AAIS Sample No.:	<u>30</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>clear yellow mastic</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ;	<u> </u> %
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ;	<u> </u> %
other:	<u> </u> ;	<u> </u> %
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u> carbonate glue </u> ;	<u> 100 </u> %
type:	<u> </u> ;	<u> </u> %
type:	<u> </u> ;	<u> </u> %
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-1</u>	AAIS Sample No.:	<u>31</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray/white plaster</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
total ASBESTOS: <u> nd </u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> <1 </u>	%
synthetics:	<u> <1 </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
total other fibrous: <u> <1 </u> %		

NONFIBROUS MATERIAL:		
type: sand	<u> 30 </u>	%
type: carbonate/gypsum	<u> 70 </u>	%
type: <u> </u>	<u> </u>	%
total nonfibrous: <u> 100 </u> %		

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-2</u>	AAIS Sample No.:	<u>32</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray/white plaster</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> <1 </u>	%
synthetics:	<u> <1 </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> <1 </u> %

NONFIBROUS MATERIAL:		
type:	<u> sand </u> ; <u> 30 </u>	%
type:	<u> carbonate/gypsum </u> ; <u> 70 </u>	%
type:	<u> </u> ; <u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-3</u>	AAIS Sample No.:	<u>33</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray/white plaster, paint</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> <1 </u>	%
synthetics:	<u> <1 </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> <1 </u> %

NONFIBROUS MATERIAL:		
type: <u> sand </u>	<u> 35 </u>	%
type: <u> carbonate/gypsum </u>	<u> 63 </u>	%
type: <u> paint </u>	<u> 2 </u>	%
		total nonfibrous: <u> 100 </u> %

comments: _____

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919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-4</u>	AAIS Sample No.:	<u>34</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>white plaster, paint</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ;	<u> </u> %
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ;	<u> </u> %
other:	<u> </u> ;	<u> </u> %
		total other fibrous: <u> </u> %


NONFIBROUS MATERIAL:		
type:	<u>carbonate/gypsum plstr</u> ;	<u> 97 </u> %
type:	<u>paint</u> ;	<u> 3 </u> %
type:	<u> </u> ;	<u> </u> %
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>HP1-5</u>	AAIS Sample No.: <u>35</u>
Analyst: <u>sw</u>	Date: <u>4/22/02</u>
Description: <u>gray/white plaster, paint</u>	
ASBESTOS: <u> </u> present <u> x </u> not detected	
Chrysotile: _____	_____ %
Amosite: _____	_____ %
other: _____ ; _____	_____ %
total ASBESTOS: <u> nd </u> %	
OTHER FIBROUS MATERIAL:	
fbgls/min. wool: _____	_____ %
cellulose: _____	<u><1</u> %
synthetics: _____	<u><1</u> %
other: _____ ; _____	_____ %
other: _____ ; _____	_____ %
total other fibrous: <u><1</u> %	
NONFIBROUS MATERIAL:	
type: <u>sand</u> ; _____	<u>35</u> %
type: <u>carbonate/gypsum</u> ; _____	<u>63</u> %
type: <u>paint</u> ; _____	<u>2</u> %
total nonfibrous: <u>100</u> %	
comments: _____	

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-6</u>	AAIS Sample No.:	<u>36</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray/white plaster, paint</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> <1 </u>	%
synthetics:	<u> <1 </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> <1 </u> %

NONFIBROUS MATERIAL:		
type: <u> sand </u>	<u> 35 </u>	%
type: <u> carbonate/gypsum </u>	<u> 63 </u>	%
type: <u> paint </u>	<u> 2 </u>	%
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-7</u>	AAIS Sample No.:	<u>37</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray/white plaster, paint</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
total ASBESTOS: <u> nd </u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u><1</u>	%
synthetics:	<u><1</u>	%
other:	<u> </u>	%
other:	<u> </u>	%
total other fibrous: <u><1</u> %		

NONFIBROUS MATERIAL:		
type:	<u>sand</u>	<u> 35 </u> %
type:	<u>carbonate/gypsum</u>	<u> 63 </u> %
type:	<u>paint</u>	<u> 2 </u> %
total nonfibrous: <u> 100 </u> %		

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>CT1-1</u>	AAIS Sample No.: <u>38</u>
Analyst: <u>sw</u>	Date: <u>4/22/02</u>
Description: <u>gray ceiling tile</u>	

ASBESTOS: present x not detected

Chrysotile: _____ %
 Amosite: _____ %
 other: _____ ; _____ %

total ASBESTOS: nd %

OTHER FIBROUS MATERIAL:

fbgls/min.wool: 75 %
 cellulose: 2 %
 synthetics: _____ %
 other: _____ ; _____ %
 other: _____ ; _____ %

total other fibrous: 77 %

NONFIBROUS MATERIAL:

type: perlite/binder ; 20 %
 type: paint ; 3 %
 type: _____ ; _____ %

total nonfibrous: 23 %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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 Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.

P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524

919-963-2898

BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CT1-2</u>	AAIS Sample No.:	<u>39</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray ceiling tile</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____	%
total ASBESTOS: <u>nd</u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u>75</u>	%
cellulose:	<u>2</u>	%
synthetics:	_____	%
other:	_____	%
other:	_____	%
total other fibrous: <u>77</u> %		

NONFIBROUS MATERIAL:		
type: <u>perlite/binder</u>	<u>20</u>	%
type: <u>paint</u>	<u>3</u>	%
type: _____	_____	%
total nonfibrous: <u>23</u> %		

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CT1-3</u>	AAIS Sample No.:	<u>40</u>
Analyst:	<u>SW</u>	Date:	<u>4/22/02</u>
Description:	<u>gray ceiling tile</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> 75 </u>	%
cellulose:	<u> 2 </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> 77 </u> %

NONFIBROUS MATERIAL:		
type:	<u> perlite/binder </u>	20 %
type:	<u> paint </u>	3 %
type:	<u> </u>	%
		total nonfibrous: <u> 23 </u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u> Client Sample No.: <u>CT2-1</u> Analyst: <u>sw</u> Description: <u>gray ceiling tile</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>41</u> Date: <u>4/22/02</u>
ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected Chrysotile: _____ % Amosite: _____ % other: _____ ; _____ % <div style="text-align: right;">total ASBESTOS: <u>nd</u> %</div>	
OTHER FIBROUS MATERIAL: fbgls/min. wool: _____ 15 % cellulose: _____ 45 % synthetics: _____ % other: _____ ; _____ % other: _____ ; _____ % <div style="text-align: right;">total other fibrous: <u>60</u> %</div>	
NONFIBROUS MATERIAL: type: <u>perlite/binder</u> ; _____ 37 % type: <u>paint</u> ; _____ 3 % type: _____ ; _____ % <div style="text-align: right;">total nonfibrous: <u>40</u> %</div>	
comments: _____	

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CT2-2</u>	AAIS Sample No.:	<u>42</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray ceiling tile</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> 15 </u>	%
cellulose:	<u> 45 </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> 60 </u> %

NONFIBROUS MATERIAL:		
type:	<u> perlite/binder </u> ; <u> 37 </u>	%
type:	<u> paint </u> ; <u> 3 </u>	%
type:	<u> </u> ; <u> </u>	%
		total nonfibrous: <u> 40 </u> %

comments:

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BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u> Client Sample No.: <u>CT2-3</u> Analyst: <u>sw</u> Description: <u>gray ceiling tile</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>43</u> Date: <u>4/22/02</u>
ASBESTOS: <u> </u> present <u> x </u> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ ; _____ % <div style="text-align: right;">total ASBESTOS: <u> nd </u> %</div>	
OTHER FIBROUS MATERIAL: fbgls/min. wool: _____ 15 % cellulose: _____ 45 % synthetics: _____ % other: _____ ; _____ % other: _____ ; _____ % <div style="text-align: right;">total other fibrous: <u> 60 </u> %</div>	
NONFIBROUS MATERIAL: type: <u>perlite/binder</u> ; _____ 37 % type: <u>paint</u> ; _____ 3 % type: _____ ; _____ % <div style="text-align: right;">total nonfibrous: <u> 40 </u> %</div>	
comments: _____	

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CB1-1A</u>	AAIS Sample No.:	<u>44</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>black cove base</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u> calcite </u> ; <u> 30 </u>	%
type:	<u> vinyl/rubber </u> ; <u> 70 </u>	%
type:	<u> </u> ; <u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u> Client Sample No.: <u>CB1-1B</u> Analyst: <u>sw</u> Description: <u>yellow glue</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>45</u> Date: <u>4/22/02</u>
ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ ; _____ % total ASBESTOS: <u>nd</u> %	
OTHER FIBROUS MATERIAL: fbgls/min. wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ ; _____ % other: _____ ; _____ % total other fibrous: _____ %	
NONFIBROUS MATERIAL: type: <u>carbonate glue</u> ; <u>100</u> % type: _____ ; _____ % type: _____ ; _____ % total nonfibrous: <u>100</u> %	
comments: _____	

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CB1-2A</u>	AAIS Sample No.:	<u>46</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>brown cove base</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type: <u> calcite </u>	<u> 30 </u>	%
type: <u> vinyl/rubber </u>	<u> 70 </u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u> Client Sample No.: <u>CB1-2B</u> Analyst: <u>sw</u> Description: <u>brown glue</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>47</u> Date: <u>4/22/02</u>
ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ ; _____ %	
total ASBESTOS: <u>nd</u> %	
OTHER FIBROUS MATERIAL:	
fbgls/min. wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ ; _____ % other: _____ ; _____ %	
total other fibrous: _____ %	
NONFIBROUS MATERIAL:	
type: <u>carbonate glue</u> ; <u>100</u> % type: _____ ; _____ % type: _____ ; _____ %	
total nonfibrous: <u>100</u> %	
comments: _____	

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CB1-3A</u>	AAIS Sample No.:	<u>48</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>black cove base</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type: <u> calcite </u>	<u> 30 </u>	%
type: <u> vinyl/rubber </u>	<u> 70 </u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CB1-3B</u>	AAIS Sample No.:	<u>49</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray glue</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	<u> </u> %
Amosite:	<u> </u>	<u> </u> %
other:	<u> </u> ; <u> </u>	<u> </u> %
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	<u> </u> %
cellulose:	<u> </u>	<u> </u> %
synthetics:	<u> </u>	<u> </u> %
other:	<u> </u> ; <u> </u>	<u> </u> %
other:	<u> </u> ; <u> </u>	<u> </u> %
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u> carbonate glue </u> ; <u> 100 </u>	<u> 100 </u> %
type:	<u> </u> ; <u> </u>	<u> </u> %
type:	<u> </u> ; <u> </u>	<u> </u> %
		total nonfibrous: <u> 100 </u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>WB1-1A</u>	AAIS Sample No.:	<u>50</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray drywall, paper</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> </u>	%
cellulose:	<u> 15 </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> 15 </u> %


NONFIBROUS MATERIAL:		
type: <u>gypsum</u>	<u> 85 </u>	%
type: <u> </u>	<u> </u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u> 85 </u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u> Client Sample No.: <u>WB1-1B</u> Analyst: <u>sw</u> Description: <u>white sheetrock spackle</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>51</u> Date: <u>4/22/02</u>
ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ ; _____ % <div style="text-align: right;">total ASBESTOS: <u>nd</u> %</div>	
OTHER FIBROUS MATERIAL: fbgls/min. wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ ; _____ % other: _____ ; _____ % <div style="text-align: right;">total other fibrous: _____ %</div>	
NONFIBROUS MATERIAL: type: <u>mica-carbonate spackle</u> ; <u>100</u> % type: _____ ; _____ % type: _____ ; _____ % <div style="text-align: right;">total nonfibrous: <u>100</u> %</div>	
comments: _____	

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

* Since most of the vinyl floor tiles marketed in the late sixties to mid-seventies contained asbestos, and because some of the asbestos was milled so fine as to be below the detection limits of current PLM techniques, the presence of any detectable asbestos by PLM is an indication the tile is ACM.


Analyst Signature _____
Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.

P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>WB1-2A</u>	AAIS Sample No.:	<u>52</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray drywall, paper</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> </u>	%
cellulose:	<u> 15 </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
		total other fibrous: <u> 15 </u> %

NONFIBROUS MATERIAL:		
type: <u> gypsum </u>	<u> 85 </u>	%
type: <u> </u>	<u> </u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u> 85 </u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>WB1-3A</u>	AAIS Sample No.:	<u>54</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray drywall, paper</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
total ASBESTOS: <u> nd </u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> </u>	%
cellulose:	<u> 15 </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
total other fibrous: <u> 15 </u> %		

NONFIBROUS MATERIAL:		
type: <u> gypsum </u>	<u> 85 </u>	%
type: <u> </u>	<u> </u>	%
type: <u> </u>	<u> </u>	%
total nonfibrous: <u> 85 </u> %		

comments:

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Analyst Signature



Stephen H. Westbrook, President


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P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u> Client Sample No.: <u>WB1-3B</u> Analyst: <u>sw</u> Description: <u>white sheetrock spackle</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>55</u> Date: <u>4/22/02</u>
ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ ; _____ %	total ASBESTOS: <u>nd</u> %
OTHER FIBROUS MATERIAL:	
fbgls/min. wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ ; _____ % other: _____ ; _____ %	total other fibrous: _____ %
NONFIBROUS MATERIAL:	
type: <u>mica-carbonate spackle</u> ; <u>100</u> % type: _____ ; _____ % type: _____ ; _____ %	total nonfibrous: <u>100</u> %
comments: _____	

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>PF1-1</u>	AAIS Sample No.:	<u>56</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray TSI w/cloth weave</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
total ASBESTOS: <u> nd </u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> 15 </u>	%
cellulose:	<u> 5 </u>	%
synthetics:	<u> </u>	%
other:	<u> </u> ; <u> </u>	%
other:	<u> </u> ; <u> </u>	%
total other fibrous: <u> 20 </u> %		

NONFIBROUS MATERIAL:		
type: <u> carbonate binder </u>	<u> 80 </u>	%
type: <u> </u>	<u> </u>	%
type: <u> </u>	<u> </u>	%
total nonfibrous: <u> 80 </u> %		

comments:

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Stephen H. Westbrook, President

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919-963-2898

BULK ASBESTOS TEST REPORT - NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>PF1-2</u>	AAIS Sample No.: <u>57</u>
Analyst: <u>sw</u>	Date: <u>4/22/02</u>
Description: <u>gray TSI w/cloth weave</u>	

ASBESTOS: present x not detected

Chrysotile: _____ %
Amosite: _____ %
other: _____ ; _____ %

total ASBESTOS: nd %

OTHER FIBROUS MATERIAL:

fbgls/min. wool: _____ 15 %
cellulose: _____ 5 %
synthetics: _____ %
other: _____ ; _____ %
other: _____ ; _____ %

total other fibrous: 20 %

NONFIBROUS MATERIAL:


type: carbonate binder ; _____ 80 %
type: _____ ; _____ %
type: _____ ; _____ %

total nonfibrous: 80 %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Stephen H. Westbrook, President

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P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Bryant Dorm</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>PF1-3</u>	AAIS Sample No.:	<u>58</u>
Analyst:	<u>sw</u>	Date:	<u>4/22/02</u>
Description:	<u>gray TSI w/cloth weave</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min.wool:	<u> 15 </u>	%
cellulose:	<u> 5 </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> 20 </u> %

NONFIBROUS MATERIAL:		
type: <u> carbonate binder </u>	<u> 80 </u>	%
type: <u> </u>	<u> </u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u> 80 </u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Analyst Signature



Stephen H. Westbrook, President

SCHNEIDER LABORATORIES

INCORPORATED

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • (FAX) 804-353-6928

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AIHA/ELLAP 100527, NVLAP 1150, NYELAP 11413, CAELAP 2078, NC 593, SC 93003

LABORATORY ANALYSIS REPORT

Lead Analysis by EPA 3050B/7420 Method

ACCOUNT #: 2178-02-6
CLIENT: NFE TECHNOLOGIES, INC.
ADDRESS: 250 DOMINION DRIVE
MORRISVILLE, NC 27560

DATE COLLECTED: 4/15/2002
DATE RECEIVED: 4/23/2002
DATE ANALYZED: 4/23/2002
DATE REPORTED: 4/23/2002

PO NO.:
PROJECT NAME: FSU
PROJECT NO.: 01-117
JOB LOCATION: Bryant Hall

SAMPLE TYPE: PAINT

SLI Sample No.	Client Sample No.	Sample Description	Sample Wt (mg)	Dilution Factor	Total Lead (µg)*	Lead Conc (% by wt)
2253306	Bryant CP1	Plaster Ceiling	392	1	< 20.0	< 0.005
2253307	Bryant WP1	Wall-Metal Box	382	1	< 20.0	< 0.005
2253308	Bryant WP2	Wall-Concrete Block	371	1	< 20.0	< 0.005
2253309	Bryant WP3	Wall-Concrete Post	509	1	< 20.0	< 0.004
	QC - 21678	10.0 ppm Calibration Std			982.6	98.3%
	QC - 21678	200 µg spike			213.8	106.9%
	QC - 21678	5.0 ppm Calibration Std			490.6	98.1%
	QC - 21678	Blank			< 20.0	
	QC - 21678	NIST 2710 Standard			574.0	103.8%

ANALYST: DEREK L. JACKSON

Total no. of pages in report = 1

REVIEWED BY



Amy J. Colosimo, Analyst

*Minimum Reporting Limit: 20 µg Total Lead. For work involving HUD, child-occupied building and other residential units, the Federal Lead Standard is 0.5% lead by weight [5000 ppm]. The requirements of the OSHA Lead in Construction Standard, 29 CFR. 1926.62, are invoked if any lead is present in the sample; there is no minimum concentration. *For true values, assume two (2) significant figures. All testing is performed in strict accordance with Schneider Laboratories, Inc. protocol.*



Schneider Laboratories, Inc.
 2512 West Cary Street Richmond, Virginia 23220-5117
 804-353-1111 • 800-785-LABS (5227) • Fax 804-353-6928
 www.slabinc.com e-mail: lab@slabinc.com

Submitting Co. NFE TECHNOLOGIES, INC.

Lab Use WO#

2178-026

MORRISVILLE, NC 27560

Acct #

2178

Project Name PSU

Project Location Bryant Hall

Project Number 01-117

Purchase Order No. _____

Special Instructions [include requests for special reporting or data packages]

e-mail results to:

mailbox@nfetech.com

Phone #

(919)469-1800

Fax #

(919) 319-8400

Turn Around Time	Matrix / Sample Type (Select ONE)	Tests / Analytes (Select ALL that Apply)		
<input type="checkbox"/> 24 hours* <input type="checkbox"/> 48 hours* <input type="checkbox"/> 72 hours* <input checked="" type="checkbox"/> STANDARD (5 days) <input type="checkbox"/> Standard Full TCLP (10d) <input type="checkbox"/> Weekend* <small>not available for all tests Schedule rush organics, multi metals & weekend in advance.</small>	<small>All samples on form should be of SAME matrix type. Use additional forms as needed.</small> <input type="checkbox"/> Air <input type="checkbox"/> Solid <input type="checkbox"/> Aqueous <input type="checkbox"/> Waste <input type="checkbox"/> Bulk <input type="checkbox"/> Wastewater <input type="checkbox"/> Hi-Vol Filter (PM10) <input type="checkbox"/> Water, Drinking <input type="checkbox"/> Hi-Vol Filter (TS) <input type="checkbox"/> Compliance <input type="checkbox"/> Soil <input type="checkbox"/> Wipe <input type="checkbox"/> Wipe, Composite	Asbestos Air / Filter Counts <input type="checkbox"/> PCM (NIOSH Test) <input type="checkbox"/> TEM (AHERA) <input type="checkbox"/> TEM (EPA Level II) <input type="checkbox"/> _____ Micro-Asbestos Tests <input type="checkbox"/> Total Dust (NOISH 0500) <input type="checkbox"/> Resp. Dust (NOISH 0600) <input type="checkbox"/> Silica - FTIR (NOISH 7500) <input type="checkbox"/> Silica XRD (NOISH 7602)	Asbestos Bulk / Ash ID <input type="checkbox"/> PLM (EPA 600, 1993) <input type="checkbox"/> PLM (EPA Point Count) <input type="checkbox"/> PLM (Qualitative only) <input type="checkbox"/> NYELAP 198.1/4 <input type="checkbox"/> CAELAP (EPA Interim) <input type="checkbox"/> TEM (Chatfield) <input type="checkbox"/> _____ FOR ASBESTOS AIR: TYPE OF RESPIRATOR USED: _____	Metals - Total (ppm) <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ Extraction Procedures <input type="checkbox"/> TCLP / Lead <input type="checkbox"/> TCLP / RCRA Metals <input type="checkbox"/> TCLP / FUI L (w/organics) <input type="checkbox"/> _____

ORGANICS TESTS and other Analytes

NOTE All samples for organics should be kept at 4°C from collection until testing. Schedule rush analyses in advance. Indicate preservatives added & media type. Indicate analysis method for organics tests.

Sample #	Date	Sample Identification	Flags				Information for Air Samples				Air Vol	# Containers	
			Wiped	Type	Area	Flow Rate	Start	Stop	Start	Stop			
Bryant C-1	4/15/02	Painted Master Ceiling											
Bryant W-1	↓	wall - metal box											
Bryant W-2		wall - concrete block											
Bryant W-3		wall - Concrete post											

Sample Collection & Custody Information

Sampled by [NAME] H.W. Boyd [SIGNATURE] _____ [DATE/TIME] 4/15/02 STATE where samples were collected: NC

Relinquished by [NAME] H.W. Boyd [SIGNATURE] _____ [DATE/TIME] 4/22/02 09:00 | Sample return requested

Received by [NAME] Roni C. Simon [SIGNATURE] _____ [DATE/TIME] 4-23-02 10:10 | Ambient temp | | Cool pH | | Yes | | No

Waybill# 648815 9716 | X IR | IS Res. Cl | | Yes | | No

Sample Condition Noted.

NFE Technologies, Inc.
250 Dominion Drive
Morrisville, North Carolina 27560

ASBESTOS AND LEAD PAINT ASSESSMENT

Vance Dormitory
Fayetteville State University
Fayetteville, North Carolina

Submitted to:

Mr. Steve Martin
University Architect
1200 Murchison Rd., Newbold Station
Fayetteville, North Carolina 28301-4298

April 30, 2002

NFE Technologies, Inc.
250 Dominion Drive
Morrisville, North Carolina 27560



ASBESTOS AND LEAD PAINT ASSESSMENT

Vance Dormitory
Fayetteville State University
Fayetteville, North Carolina

Submitted to:

Mr. Steve Martin
University Architect
1200 Murchison Rd., Newbold Station
Fayetteville, North Carolina 28301-4298

April 30, 2002



April 30, 2002

Steve Martin
University Architect
Fayetteville State University
1200 Murchison Road
Fayetteville, NC 28301-4298

Re: Asbestos and Lead Based Paint Identification at Vance Dormitory
Fayetteville State University
NFE Technologies, Inc. Project No. 01-117

We are pleased to complete and submit to you our report of the results of the building asbestos and lead based paint inspection for the Vance Dormitory building at Fayetteville State University.

This report was prepared to provide information concerning the presence and extent of asbestos containing materials and lead based paint in the structure.

If you have any questions regarding the information or the recommendations made in this report, please feel free to contact us at your convenience.

We look forward to our continued relationship.

Respectfully submitted,
NFE Technologies, Inc.

A handwritten signature in black ink, appearing to read "H. W. Boyd". The signature is written in a cursive style with a prominent loop at the end.

H. W. Boyd, PG, Ph.D.
Senior Environmental Scientist
NC Asbestos Inspector #10788

Report Prepared by: H. W. Boyd

TABLE OF CONTENTS

Table of Contents	3
Project Executive Summary	5
1.0 Project Information	6
1.01 Project Authorization	6
1.02 Project Description	6
1.03 Purpose and Scope of Services	6
2.0 Site Description	7
2.01 Site Location and Description	7
2.02 Field Investigation	8
2.03 Laboratory Analysis	8
Asbestos	8
Lead Paint	9
2.04 Site Conditions	9
3.0 Evaluation and Recommendations	9
3.01 Asbestos Evaluation	10
3.02 Lead Paint Evaluation	10
3.03 Recommendations	11
Asbestos	11
Lead Paint	11
3.04 General Conditions	12
3.05 Procedures Regarding Field Logs, Laboratory Data Sheets And Samples	12

Appendix A

Table of ACM

Asbestos Homogeneous Area Map

Table of All Asbestos Samples

Asbestos Sample Location Map

Table of Lead Based Paint Samples

Lead Based Paint Sample Location Map

Appendix B

Asbestos Laboratory Report

Lead Based Paint Laboratory Report

PROJECT EXECUTIVE SUMMARY

The purpose of this environmental site inspection was to determine the presence and extent of asbestos containing materials (ACM) and lead based paint (LBP) in the Vance Dormitory building at Fayetteville State University, Fayetteville, NC.

For this purpose, 50 bulk samples were taken of suspect asbestos materials. These materials included flooring, thermal system insulation, plaster, and ceiling materials. Multiple samples were collected of each suspect material, as per EPA and OSHA guidelines, and sent to an accredited laboratory for analysis by polarized light microscopy (PLM).

In addition, a total of six paint scrape samples were collected from various interior building components. Samples were sent to an accredited laboratory for analysis by atomic absorption spectrophotometry.

Based on the conditions encountered in the field, and the laboratory analysis of physical samples, it was determined that asbestos exists in the 9" light gray floor tiles throughout the structure and in some pipe insulation above the plaster ceilings. The floor tiles are all generally in good condition where they are found exposed, and they are assumed to lie under the newer non-ACM tiles exposed throughout most of the building. All observed ACM floor tiles are non-friable. There is a total of approximately 30,000 square feet of ACM floor tile in the structure. Black mastic associated with the ACM floor tiles also contains asbestos.

A run of ACM pipe insulation was observed above the plaster ceiling in the Lounge. The material has a damaged cover. ACM pipe fitting insulation was also observed above the ceiling in the Lounge. These materials may also exist elsewhere in the structure.

All metal doors to the exterior and the stairwells should be considered to be fire doors.

None of the six paint samples were found to contain lead above the HUD action level.

1.0 Project Information

This section discusses the details regarding project authorization, project description, purpose and scope of services provided as agreed in the contract.

1.01 Project Authorization:

This report presents the results of the site assessment conducted within the Vance Dormitory building located at Fayetteville State University, Fayetteville, North Carolina. The assessment was conducted for FSU to use in planning renovation activities.

1.02 Project Description:

The project building is U-shaped building with approximately 45,000 square feet of space on three floors.

Floor plans for the three floors were obtained from the University Internet web page.

1.03 Purpose and Scope of Services:

The purpose of this assessment was to determine the presence of asbestos containing materials (ACM) and lead-based paint (LBP). The information presented in this report may help to reduce the risk of potential asbestos or lead exposure to employees and contractors and to aid in the proper disposal of waste and debris generated during maintenance work on the site.

The following are the scope of services included and performed for this project:

- Identify suspect ACM within the structure

- Take sufficient samples of suspect ACM to determine the presence or absence of asbestos
- Identify building components which could be coated with LBP
- Take representative paint samples to determine the likelihood of LBP within the structure
- Prepare a report presenting all data, observations and recommendations

2.0 Site Description

The following paragraphs describe the building and conditions encountered within the structure during the investigation.

2.01 Site Location and Description:

The site considered in this evaluation is a dormitory located at Fayetteville State University, Fayetteville, North Carolina. There are three main floors of living space in each of three wings. Each floor contains student suites with communal bathrooms. The main floor also contains a lounge area and computer room.

The structure, constructed in the 1960's, is of masonry construction with brick exterior walls and concrete block interior walls. Floors are concrete throughout, and are largely covered with floor tile, with ceramic tile flooring in the bathrooms. The roof is flat and was not considered for sampling during this survey. Ceilings are plaster, except in the office areas, restrooms and lounge area, where there are dropped ceilings with lay-in ceiling panels. Pipes throughout the structure were observed to be largely insulated with fiberglass insulation. No insulation was observed on air ducts in the bathroom areas.

2.02 Field Investigation:

The asbestos survey was performed on April 18, 2002 by Harry W. Boyd, Ph.D., P.G., who holds North Carolina Asbestos Inspector Accreditation #10788, and Management Planner Accreditation #20539. All sampling was done according to the EPA AHERA guidelines (40 CFR 763), as referenced in the OSHA Construction Standard (29 CFR 1926.1101). All materials considered suspect for asbestos were identified in the field and samples were collected of each material as per OSHA guidelines. The number of samples was determined by the number and type of suspect materials observed. Samples were placed immediately into plastic bags for transport to the laboratory. The "Table of All Asbestos Samples" in Appendix A contains a complete list of all materials sampled and tested for asbestos as well as listing all sample numbers. In addition, all sampling locations are plotted on floor plan maps of the structure.

Paint scrape samples were obtained from typical painted surfaces throughout the structure. These samples were not collected according to any regulatory guidelines, but were collected in order to give an indication as to the possible presence of lead based paint (LBP). Paint samples were collected by scraping areas of loose or peeling paint. Paint samples were placed in sealed plastic bags for shipment to the laboratory. The "Table of Paint Samples" in Appendix A contains a complete list of all paint surfaces sampled. In addition, all sampling locations are plotted on floor plan maps of the structure.

2.03 Laboratory Analysis:

Asbestos

All asbestos samples were collected in the field by an accredited asbestos inspector. A total of 50 samples were collected for laboratory analysis. OSHA sampling protocols mandate at least three negative samples to prove most materials as non-asbestos.

containing, so three samples were collected of most suspect materials. Surfacing materials, such as plaster or other sprayed-on or troweled-on materials require three, five or seven samples according to the extent of the material. Laboratory analysis was done according to EPA test method EPA/600/R-93/116 for Polarized Light Microscopy (PLM) by an NVLAP-accredited laboratory. A copy of the complete asbestos laboratory report is included in Appendix B. As a cost saving measure the laboratory was instructed to stop analysis after a positive result for any group of three samples, as one positive sample is all that is necessary to prove a material as asbestos-containing.

Lead Paint

A total of six paint samples were collected for laboratory analysis. One sample was collected from each surface to be tested. Laboratory analysis was done according to EPA test method EPA/3050B/7420 for analysis of lead in paint by Atomic Absorption Spectrophotometry. A copy of the complete lead laboratory report is included in Appendix B.

2.04 Site Conditions:

The interior of the structure appears to be largely original, with some dropped ceiling panels in areas where the plaster ceilings have been damaged. Most flooring, ceiling and wall materials on the main floor of the structure were observed to be in good condition. Roofing materials were not addressed during this survey.

3.0 Evaluation and Recommendations

The recommendations made in this report are based on the data obtained during the field investigation program and laboratory analysis.

3.01 Asbestos Evaluation:

Sampling and laboratory analysis has identified several types of building materials that contain asbestos. These materials are floor tile and associated mastic throughout the structure, and pipe and fitting insulation above the plaster ceilings.

The 9" light gray floor tiles exposed in the first floor maintenance storage area are ACM. This tile can be observed running under the newer tile in several other locations, and is thus assumed to continue throughout the building. All ACM floor tile and associated mastic are not friable and are presently in good condition. Approximately 30,000 square feet of ACM tile can be observed or assumed under non-ACM tiles.

A single run of ACM hard pipe insulation was observed above the plaster ceiling in the Lounge. Hard ACM pipe fittings were also observed in this same area, although the hard fittings are associated with fiberglass pipe insulation. It must be assumed that these materials exist above plaster ceilings in other locations throughout the building as well.

While not sampled during this survey, the metal doors to the stairwells and the exterior should be considered to be fire doors and assumed to contain asbestos. There are approximately 42 assumed fire doors in the building.

3.02 Lead Paint Evaluation:

Lead laboratory results indicate that none of the six paint samples contain lead in quantities greater than 0.5%, the limit for LBP under HUD guidelines. OSHA, however, does not recognize a definition for LBP, but limits worker exposure to lead. Three paint samples collected from interior surfaces contained lead below detection limits.

3.03 Recommendations:

Asbestos

ACM flooring that is undamaged can be left in place. There is little inherent danger to occupants as the materials are non-friable and generally well adhered to the substrate. New flooring (vinyl, tile, and carpeting) may be installed over the ACM flooring materials, but if the ACM flooring materials are removed they must be disposed of as asbestos waste. Loose tiles should be reapplied or replaced.

Removal of ACM flooring materials may be done by a flooring contractor (not a general contractor) or by O & M trained personnel trained in proper removal techniques. This is in accordance with OSHA interpretations of negative exposure assumptions. Flooring removed under these conditions would still need to be properly disposed of as asbestos waste. Any removal by other contractors would require accredited personnel using personal protection (disposable clothing, respirators), and may require containment of portions of the building.

ACM pipe insulation above the ceiling in the Lounge has a damaged cover. This material should be repaired by O & M trained personnel, or removed by accredited personnel. Care should be exercised when removing plaster ceilings anywhere in the structure, as the extent of the ACM pipe insulation is unknown. All hard pipe insulation should be assumed to be ACM.

Assumed ACM fire doors may be left in place. These doors should not be drilled or cut. Replacement of the doors should be done by removing the doors intact, and they should be disposed of as asbestos waste unless tested and proven to be non-ACM.

Lead Paint

Removal of lead-based paint should be done by accredited personnel using accepted removal techniques. OSHA does not have any minimum concentration to define LBP.

OSHA mainly addresses the issue in the OSHA Lead in Construction Standard, 29 CFR 1926.62, which outlines acceptable work practices to minimize worker exposure to lead.

3.04 General Conditions:

The analysis, conclusions and recommendations submitted in this report are based on the field work previously outlined and the samples collected at the places shown on the attached floor plans. This report does not reflect inhomogeneities that may occur within materials.

This report has been prepared in accordance with generally accepted procedures within the environmental industry and makes no warranties, either expressed or implied, as to the professional advice under the terms of the agreement and included in this report. The recommendations contained herein are made with the understanding that not all asbestos may have been discovered. Within all buildings are hidden spaces that may not be immediately obvious to a professional who is not intimately familiar with the building and who has only a limited access in the building. No sampling requiring destructive sampling was done during this survey. In addition, no effort was made to sample every painted surface, but rather to give an overall indication as to the likelihood of the presence of lead-based paint.

3.05 Procedures Regarding Field Logs, Laboratory Data Sheets and Samples:

In the process of obtaining and testing samples and preparing this report, procedures are followed that represent reasonable and accepted practice in the field of environmental inspections.

All samples collected are listed on field forms. Along with the sample numbers is a complete description of the materials sampled, condition of the material, extent of the material, and damage observed. In addition, all sampling sites are plotted on a floor plan map of the building. Where interior construction is missing from supplied maps, sketch maps (not to scale) are produced in the field.

This report is prepared for the exclusive use of Fayetteville State University. The actual quantities of ACM determined during the detailed design of a removal project may differ from the quantities of materials estimated during this survey.

Appendix A

Table of ACM

Asbestos Homogeneous Area Maps

Table of All Asbestos Samples

Asbestos Sample Location Maps

Table of Lead Based Paint Samples

Lead Based Paint Sample Location Maps

**Confirmed Asbestos Containing Materials
Sampled April 18, 2002**

Floor	Room/Area	HA#	Type	Description	Size*	Cond.	Friable	Asb 1	%	Asb 2	%
All (?)	Throughout	PI1	T	magnesium block pipe insulation	75 lf (?)	G	F	Amos	12	Chrys	3
All	Throughout	FT2	M1	9" light gray floor tile	30000 sf	G	N	Chrys	6		
			M1	black mastic for FT2	30000 sf	G	N	Chrys	5		
All (?)	Throughout	PF1	T	hard pipe fitting insulation	100 ea	G	N	Chrys	5		
	Throughout	FD1	M	fire doors	42 ea	G	N	(assumed ACM)			

ACBM Type
 S=Surfacing
 T=Thermal Insulation
 M=Miscellaneous
 M1=Category I Nonfriable Misc.
 M2=Category II Nonfriable Misc.

Friable
 Y=Friable
 N=Not Friable

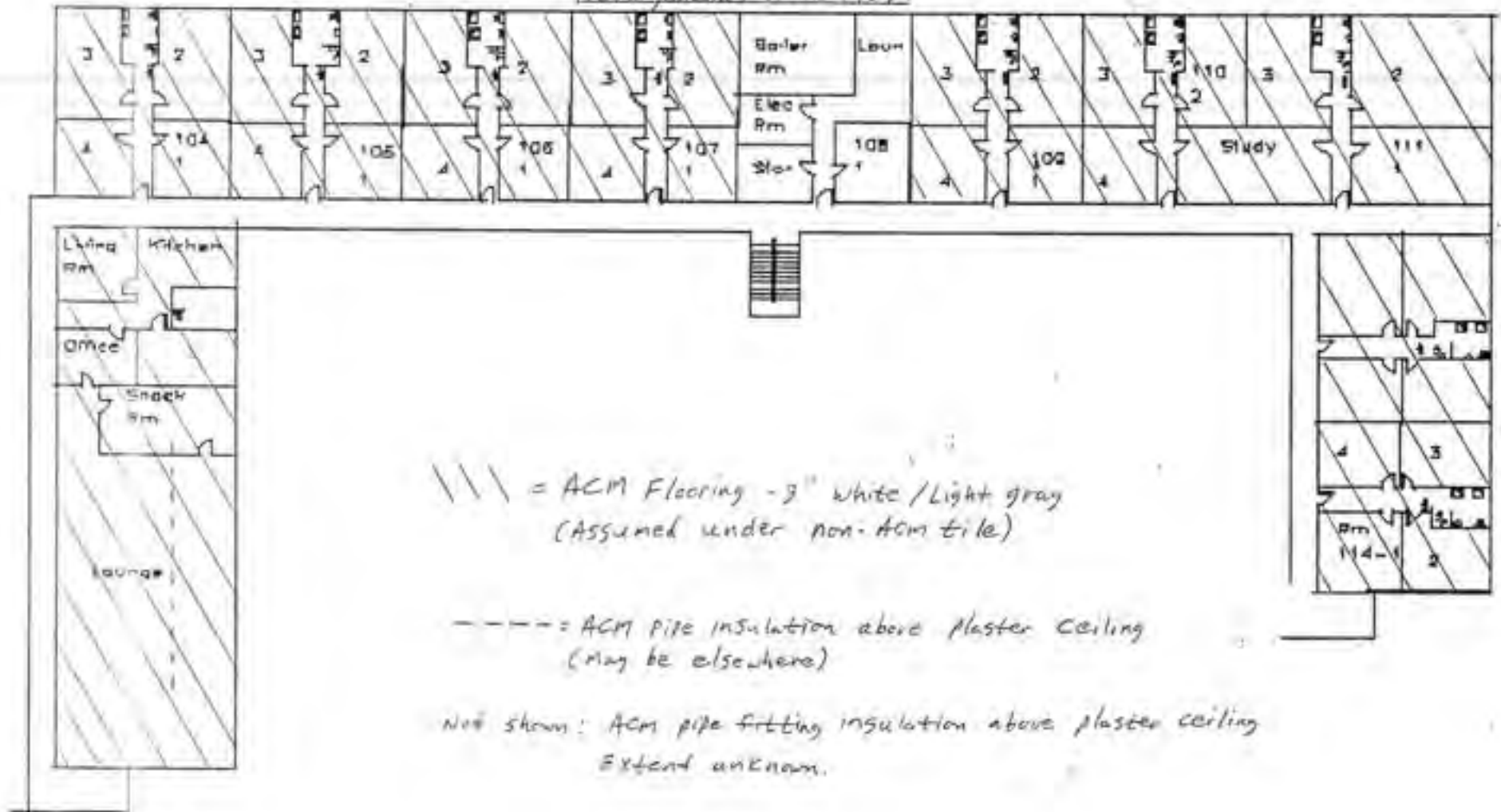
 HA
 Homogeneous Area Designation

Condition
 G=good
 F=fair
 P=poor

 Asb (Asbestos Type)
 Chrys.=Chrysotile
 Amos.=Amosite
 Trem.=Tremolite/Actinolite
 Croc.=Crocidolite

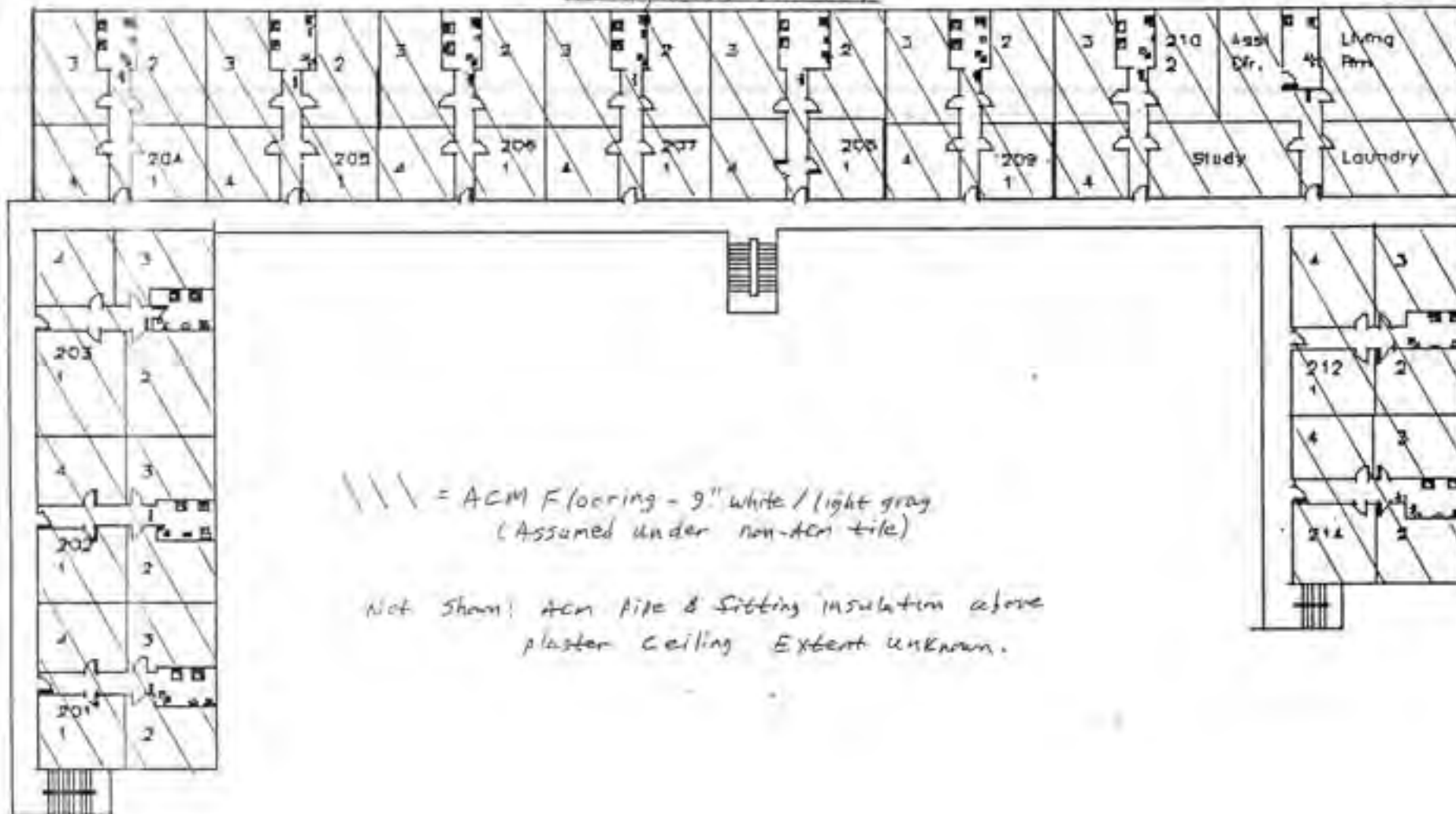
Vance Hall 1st Floor

Homogeneous Area Map



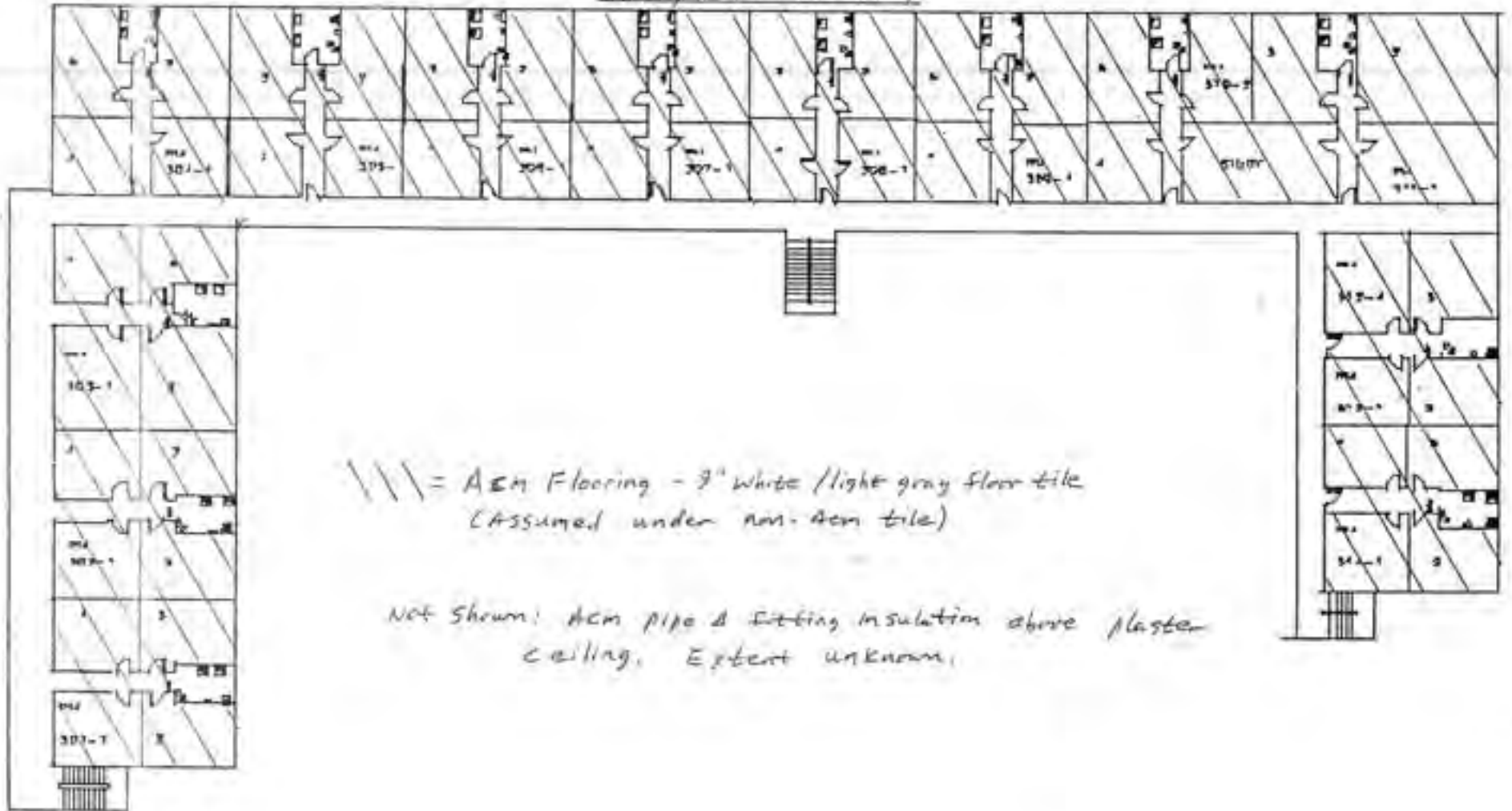
Vance Hall 2nd Floor

Homogeneous Area Map



Vance Hall
3rd Floor

Homogeneous Area Map



All Suspect Asbestos Containing Materials
Sampled April 18, 2002

Floor	Room/Area	HA#	Type	Material Description	Size	Sample Nos.	ACM
0th	throughout	HP1	S	hard plaster walls & ceilings	60000 sf	HP1-1, HP1-2, HP1-3, HP1-4 HP1-5, HP1-6, HP1-7	N
1st	RA office, computer, lounge	FT1	M1	12" blue floor tile w/ swirly brown mastic for FT1	2500 sf 2500 sf	FT1-1A, FT1-2A, FT1-3A FT1-1B, FT1-2B, FT1-3B	N N
		CT1	M	2' x 2' ceiling panels w/ random cut pattern	1500 sf	CT1-1, CT1-2, CT1-3	N
1st	throughout	CB1	M1	vinyl cove base brown mastic for CB1	8000 lf 8000 lf	CB1-1A, CB1-2A, CB1-3A CB1-1B, CB1-2B, CB1-3B	N N
1st	lounge	PI1	T	hard pipe insulation	75 sf	PI1-1	Y
1st	throughout	PF1	T	hard pipe fitting insulation	100 sf	PF1-1, PF1-2, PF1-3	Y
	throughout (under new FT also?)	FT2	M1	9" light gray floor tile w/ streaks black mastic for FT2	30000 sf 30000 sf	FT2-1A, FT2-2A, FT2-3A FT2-1B, FT2-2B, FT2-3B	Y Y
	throughout	FT3	M1	12" light blue floor tile w/ spots brown mastic for FT3	10000 sf 10000 sf	FT3-1A, FT3-2A, FT3-3A FT3-1B, FT3-2B, FT3-3B	N N
		FT4	M1	12" dark blue floor tile w/ spots brown mastic for FT4	10000 sf 10000 sf	FT4-1A, FT4-2A, FT4-3A FT4-1B, FT4-2B, FT4-3B	N N

ACBM Type:
S=Surfacings
T=Thermal Insulation
M=Miscellaneous
M1=Category I Nonfriable Misc.
M2=Category II Nonfriable Misc.

HA
Homogeneous Area Designation

ACM
Y=Material is ACM
N=Material is Not ACM

Vance Dormitory, FSU

**All Suspect Asbestos Containing Materials
Sampled April 18, 2002**

Floor	Room/Area	HA#	Type	Material Description	Size	Sample Nos.	ACM
2	laundry	CT2	M	2' x 4' ceiling panels w/ fissures	300 sf	CT2-1, CT2-2, CT2-3	N
All	restrooms throughout	CT3	M	2' x 2' ceiling panels w/ gouge & pinhole pattern	3500 sf	CT3-1, CT3-2, CT3-3	N
		FD1	M	fire doors	42 ea		(assumed ACM)

ACBM Type

S=Surfacing

T=Thermal Insulation

M=Miscellaneous

M1=Category I Nonfriable Misc.

M2=Category II Nonfriable Misc.

HA

Homogeneous Area Designation

ACM

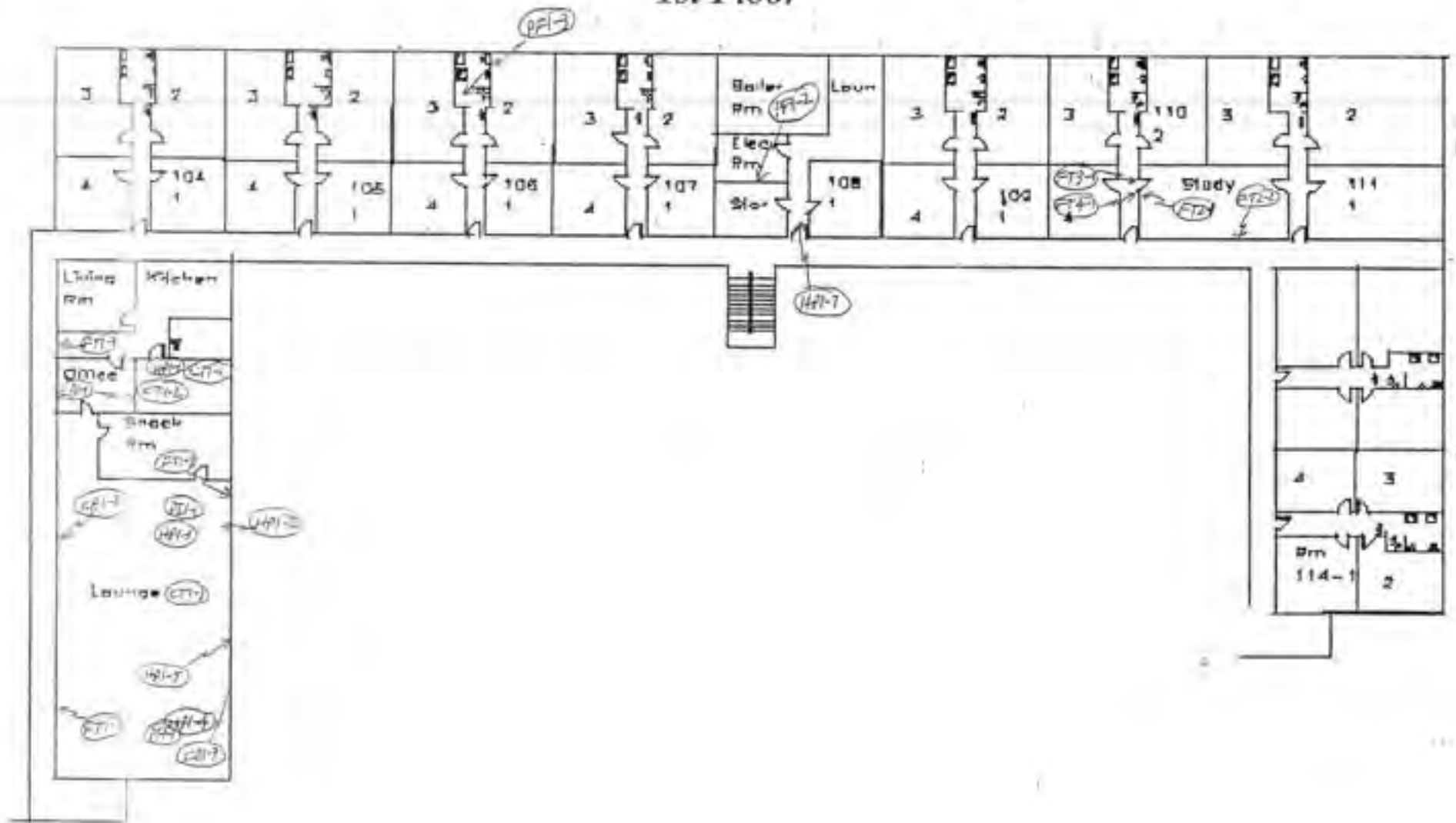
Y=Material is ACM

N=Material is Not ACM

Asbestos Sample Location Map

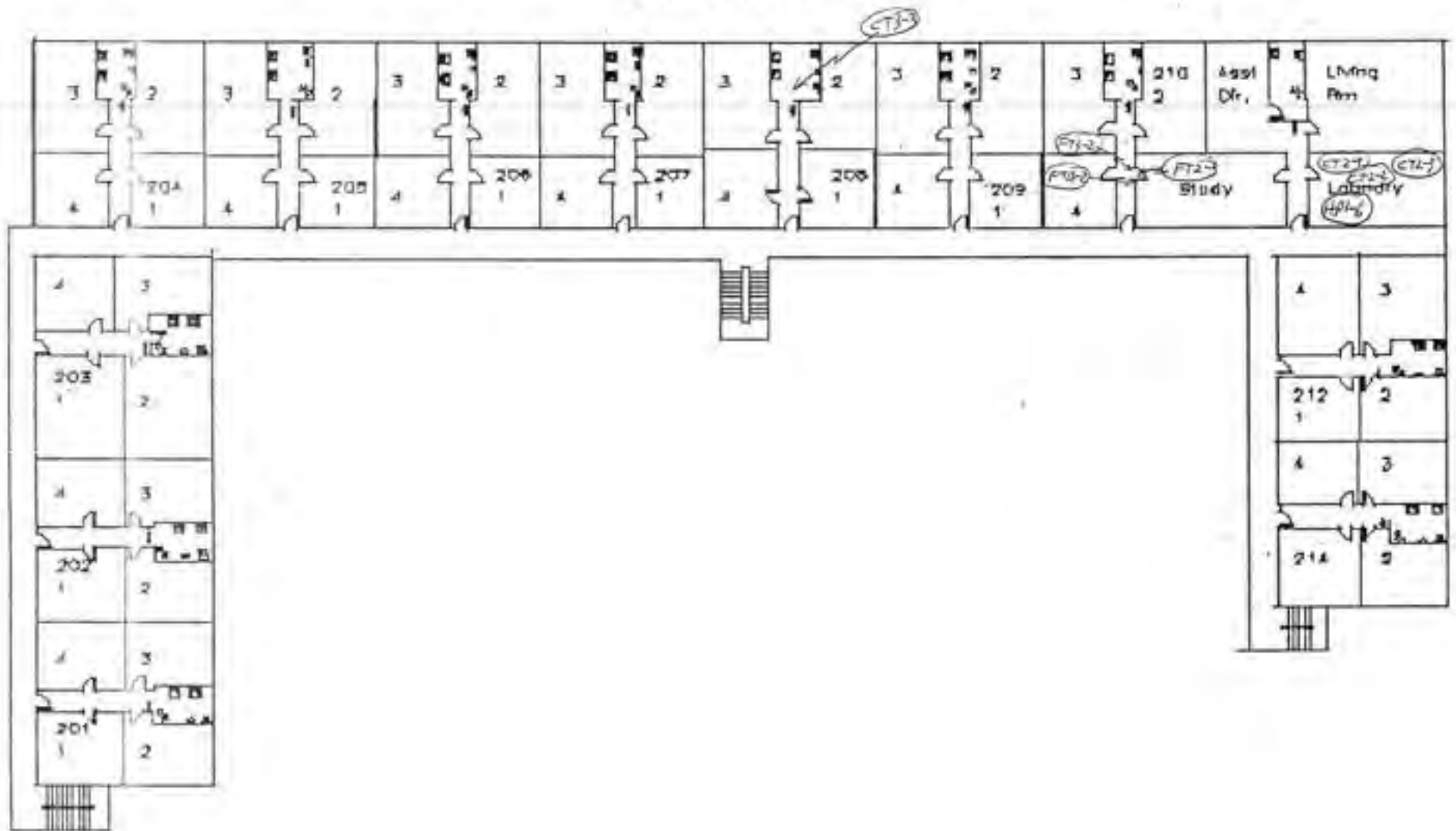
Vance Hall

1st Floor

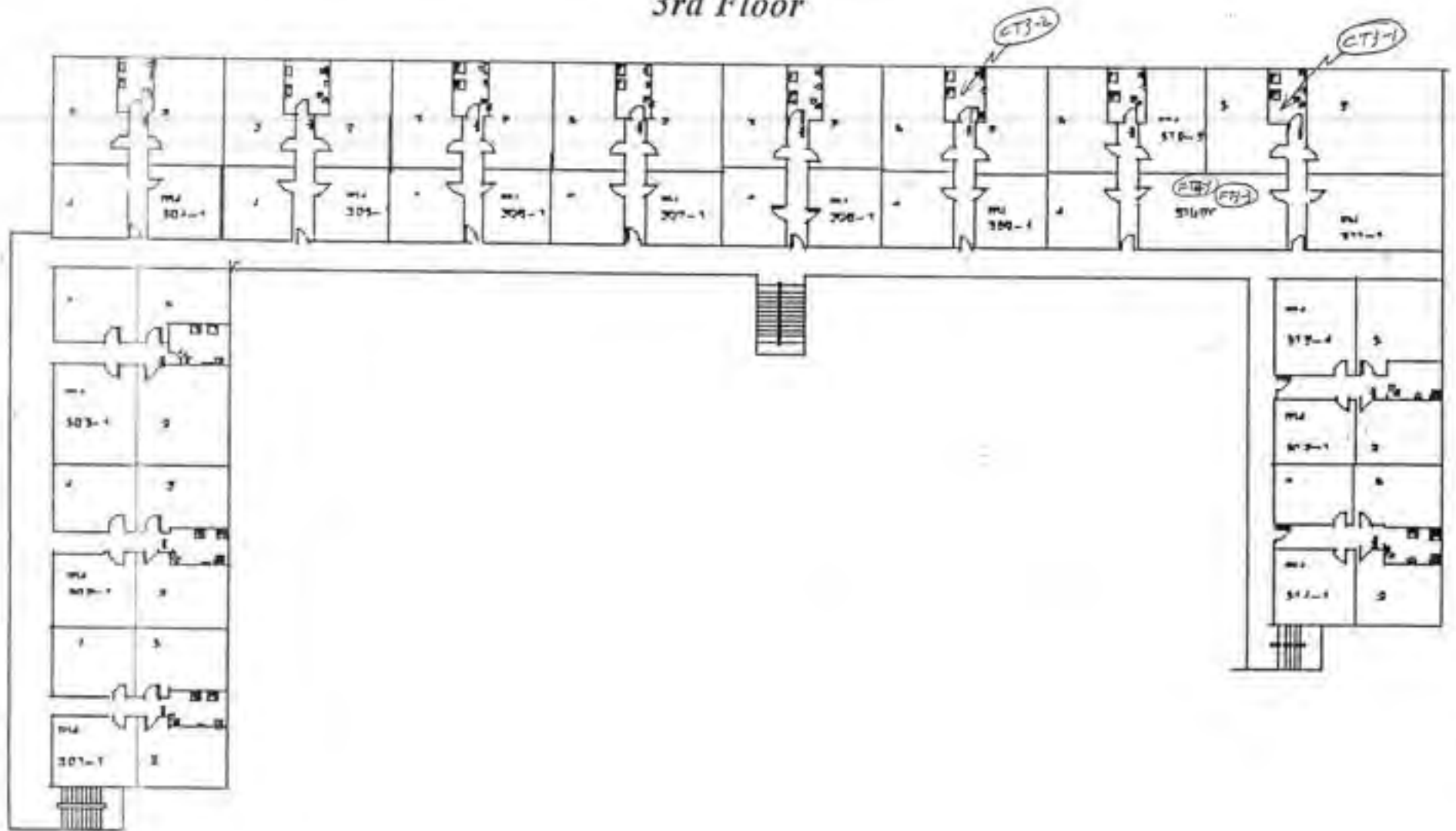


Asbestos Sample Location Map

Vance Hall
2nd Floor



Asbestos Sample Location Map
Vance Hall
3rd Floor



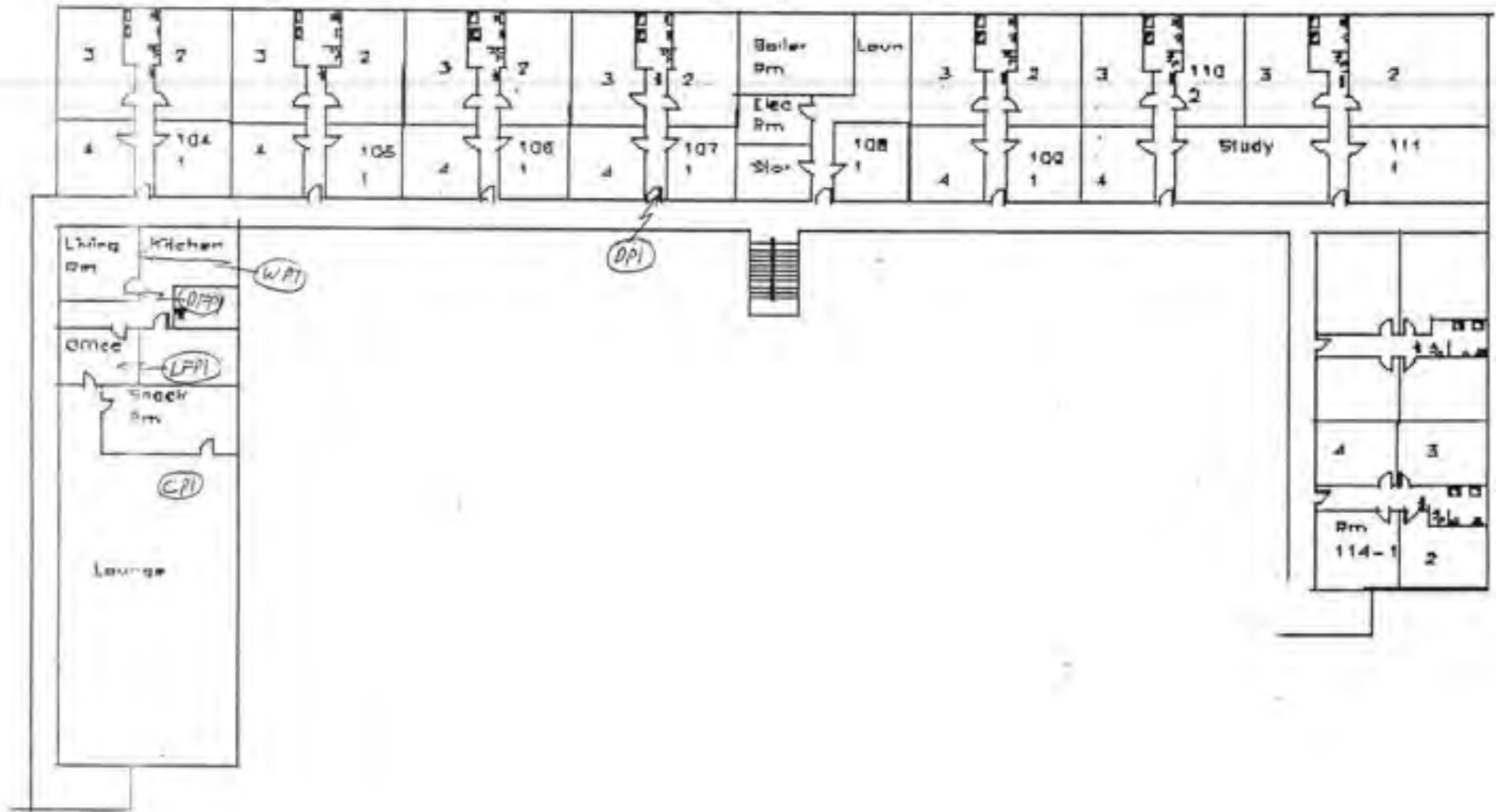
Painted Surfaces
Sampled April 18, 2002
(see floor plan maps for sample locations)

<u>Floor</u>	<u>Sample Number</u>	<u>Comments</u>	<u>Lab Results (Wt. %)</u>
1	Vance DFP1	door frame, computer room in RA office area	0.080
	Vance WP1	concrete block wall in RA office area (old kitchen)	0.063
	Vance CP1	plaster ceiling in lounge, above dropped ceiling	<0.005
	Vance DP1	door of Room 108	0.075
	Vance LFP1	peeling paint on light fixtures in RA office area	<0.006
2	Vance WP2	south wall of laundry room	<0.005

Vance Hall

1st Floor

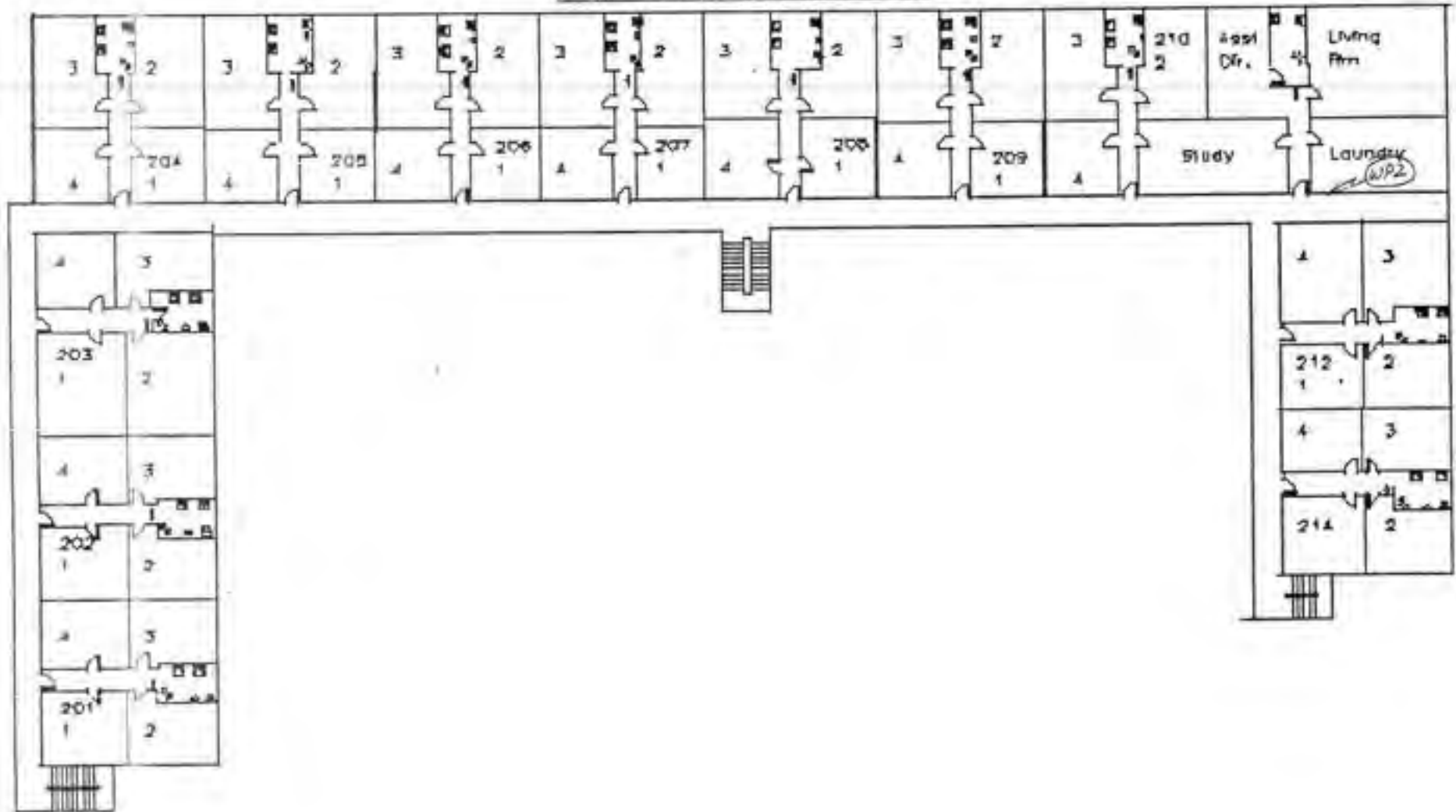
Paint Sample Location Map



Vance Hall

2nd Floor

Paint Sample Location Map



Appendix B

Asbestos Laboratory Report
Lead Based Paint Laboratory Report



**ASBESTOS ANALYSIS AND
INFORMATION SERVICE, INC.**

P.O. Box 837
Four Oaks, North Carolina 27524
919-963-2898

Asbestos Analysis and Information Service, Inc.
Job # 15085 - Bulk Sample Analyses

Client:

NFE Technologies, Inc.
Morrisville, NC

Bill Boyd

01-117

4/29/02

NFE Technologies, Inc.
 Engineers & Contractors
 Design - Build
 Civil • Construction Management
 Geotechnical • Environmental



30

1752
 250 Dominion Drive
 Morrisville, NC 27560
 (919) 469-4800
 Fax: (919) 319-8400
 E-mail: mailbox@nfetech.com
 http://www.nfetech.com

SAMPLE CUSTODY RECORD

PROJECT NUMBER: 01-117
Vance

SAMPLING DATE: 4/10/02

COLLECTED BY: H.W. Boyd

LABORATORY: AAIS

SAMPLE LOT NUMBER: 15085

Sample Number	Laboratory Number	Sample Description	Analysis Requested/ Comments
CT1-1	-243	Ceiling panel	Alm - positive Stm
-2	-244	"	
-3	245	"	
CT2-1	246	Ceiling Panel	
-2	247	"	
-3	248	"	
CT3-1	249	ceiling Panel	
-2	250	"	
-3	251	"	
HP1-1	252	hard plaster	
-2	253	"	
-3	254	"	
-4	255	"	
-5	256	"	
-6	257	"	
-7	258	"	
FT1-1A	259	Flam tile	
B	260	astic	
-2A	261	"	
B	262	"	
-3A	263	"	
B	264	"	
FT2-1A	265	Flam tile	
B	266	astic	
-2A	267	"	NA

SAMPLES RELINQUISHED BY:
 NAME: H.W. Boyd
 AFFILIATION: NFE

DATE AND TIME: 4/19/02 11:00
 SIGNATURE: [Signature]

SAMPLES TRANSPORTED BY: Hand
 COMPANY NAME: _____

DATE AND TIME: _____

SAMPLES RECEIVED BY:
 NAME: [Signature]
 AFFILIATION: AAIS

DATE AND TIME: 4/19/02
 SIGNATURE: [Signature]



SAMPLE CUSTODY RECORD

PROJECT NUMBER: 01-117 Vance

SAMPLING DATE: 4/10/02

COLLECTED BY: H.W. Boyd

LABORATORY: AAS

SAMPLE LOT NUMBER: 15085

Sample Number	Laboratory Number	Sample Description	Analysis Requested/ Comments
FT2-2A	268	mastic	UA
-3A	269	floor tile	NA
B	270	mastic	NA
FT3-1A	271	floor tile	
B	272	mastic	
-2A	273	"	
B	274	"	
-3A	275	"	
B	276	"	
FT4-1A	277	floor tile	
B	278	mastic	
-2A	279	"	
B	280	"	
-3A	281	"	
B	282	"	
CS1-1A	283	cnc base	
B	284	mastic	
-2A	285	"	
B	286	"	
-3A	287	"	
B	288	"	
PE1-1	289	pipe fittings	INS
-2	290		+
-3	291		+NA
PE1-1	292	pipe ins.	

SAMPLES RELINQUISHED BY:
 NAME: H.W. Boyd
 AFFILIATION: NFE

DATE AND TIME: 4/10/02 11:00
 SIGNATURE: _____

SAMPLES TRANSPORTED BY: Hant
 COMPANY NAME: _____

DATE AND TIME: _____

SAMPLES RECEIVED BY:
 NAME: WESLEY BIRD
 AFFILIATION: AAS

DATE AND TIME: 4/10/02
 SIGNATURE: [Signature]

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.

P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524

919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CT1-1</u>	AAIS Sample No.:	<u>243</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>gray ceiling tile</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> 20 </u>	%
cellulose:	<u> 45 </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> 65 </u> %

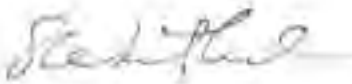
NONFIBROUS MATERIAL:		
type: <u> perlite/binder </u>	<u> 32 </u>	%
type: <u> paint </u>	<u> 3 </u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u> 35 </u> %

comments:

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

* Since most of the vinyl floor tiles marketed in the late sixties to mid-seventies contained asbestos, and because some of the asbestos was milled so fine as to be below the detection limits of current PLM techniques, the presence of any detectable asbestos by PLM is an indication the tile is ACM.

Analyst Signature


Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.
P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>QT1-2</u>	AAIS Sample No.: <u>244</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>gray ceiling tile</u>	

ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected
Chrysotile: _____ %
Amosite: _____ %
other: _____ %
total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:
fbgls/min. wool: <u>20</u> %
cellulose: <u>45</u> %
synthetics: _____ %
other: _____ %
other: _____ %
total other fibrous: <u>65</u> %

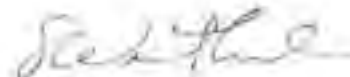
NONFIBROUS MATERIAL:
type: <u>perlite/binder</u> <u>32</u> %
type: <u>paint</u> <u>3</u> %
type: _____ %
total nonfibrous: <u>35</u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Analyst Signature



Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.

P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524

919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/D1-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CT1-3</u>	AAIS Sample No.:	<u>245</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>gray ceiling tile</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
lbs/lb min wool:	<u> 20 </u>	%
cellulose:	<u> 45 </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> 65 </u> %

NONFIBROUS MATERIAL:		
type: <u> perlite/binder </u> :	<u> 32 </u>	%
type: <u> paint </u> :	<u> 3 </u>	%
type: <u> </u> :	<u> </u>	%
		total nonfibrous: <u> 35 </u> %

comments:

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Analyst Signature



Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.
 P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
 919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u> Client Sample No.: <u>CT2-1</u> Analyst: <u>sw</u> Description: <u>gray ceiling tile</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>246</u> Date: <u>4/26/02</u>
<p>ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected</p> <p>Chrysotile: _____ % Amosite: _____ % other: _____ %</p> <p align="right">total ASBESTOS: <u>nd</u> %</p>	
<p>OTHER FIBROUS MATERIAL:</p> <p>fags/min wool: <u>25</u> % cellulose: <u>40</u> % synthetics: _____ % other: _____ % other: _____ %</p> <p align="right">total other fibrous: <u>65</u> %</p> <p>NONFIBROUS MATERIAL:</p> <p>type: <u>perlite/binder</u> : <u>32</u> % type: <u>paint</u> : <u>3</u> % type: _____ : _____ %</p> <p align="right">total nonfibrous: <u>35</u> %</p> <p>comments: _____</p>	

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

* Since most of the vinyl floor tiles marketed in the late sixties to mid-seventies contained asbestos, and because some of the asbestos was milled so fine as to be below the detection limits of current PLM techniques, the presence of any detectable asbestos by PLM is an indication the tile is ACM.


 Analyst Signature: _____
 Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.
P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>CT2-2</u>	AAIS Sample No.: <u>247</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>gray ceiling tile</u>	

ASBESTOS: present not detected

Chrysotile:	_____	%
Amosite:	_____	%
other: _____:	_____	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:

fbgls/min. wool:	25	%
cellulose:	40	%
synthetics:	_____	%
other: _____:	_____	%
other: _____:	_____	%
		total other fibrous: <u>65</u> %

NONFIBROUS MATERIAL:

type: <u>perlite/binder</u> :	32	%
type: <u>paint</u> :	3	%
type: _____:	_____	%
		total nonfibrous: <u>35</u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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Analyst Signature: 
 Stephen H. Westbrook, President


ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.
P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>CT2-3</u>	AAIS Sample No.: <u>248</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>gray ceiling tile</u>	
ASBESTOS: <u> </u> present <u> x </u> not detected	
Chrysotile:	<u> </u> %
Amosite:	<u> </u> %
other: <u> </u> ;	<u> </u> %
total ASBESTOS: <u> nd </u> %	
OTHER FIBROUS MATERIAL:	
fbgls/min. wool:	<u> 25 </u> %
cellulose:	<u> 40 </u> %
synthetics:	<u> </u> %
other: <u> </u> ;	<u> </u> %
other: <u> </u> ;	<u> </u> %
total other fibrous: <u> 65 </u> %	
NONFIBROUS MATERIAL:	
type: <u> perlite/binder </u> ;	<u> 32 </u> %
type: <u> paint </u> ;	<u> 3 </u> %
type: <u> </u> ;	<u> </u> %
total nonfibrous: <u> 35 </u> %	
comments:	

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>CT3-1</u>	AAIS Sample No.: <u>249</u>
Analyst: <u>SW</u>	Date: <u>4/26/02</u>
Description: <u>gray ceiling tile</u>	

ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected
Chrysotile: _____ %
Amosite: _____ %
other: _____ %
total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:
fbgls/min. wool: <u>75</u> %
cellulose: <u>2</u> %
synthetics: _____ %
other: _____ %
other: _____ %
total other fibrous: <u>77</u> %

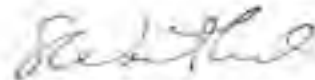
NONFIBROUS MATERIAL:
type: <u>perlite/binder</u> : <u>20</u> %
type: <u>paint</u> : <u>3</u> %
type: _____ : _____ %
total nonfibrous: <u>23</u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>CT3-2</u>	AAIS Sample No.: <u>250</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>gray ceiling tile</u>	
ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected	
Chrysotile: _____ %	
Amosite: _____ %	
other: _____ %	
total ASBESTOS: <u>nd</u> %	
OTHER FIBROUS MATERIAL:	
fbgls/min. wool: _____ %	<u>75</u> %
cellulose: _____ %	<u>2</u> %
synthetics: _____ %	_____ %
other: _____ %	_____ %
other: _____ %	_____ %
total other fibrous: <u>77</u> %	
NONFIBROUS MATERIAL:	
type: <u>perlite/binder</u> _____ %	<u>20</u> %
type: <u>paint</u> _____ %	<u>3</u> %
type: _____ %	_____ %
total nonfibrous: <u>23</u> %	
comments:	

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CT3-3</u>	AAIS Sample No.:	<u>251</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>gray ceiling tile</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> 75 </u>	%
cellulose:	<u> 2 </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> 77 </u> %

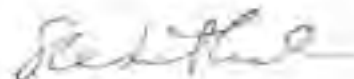
NONFIBROUS MATERIAL:		
type: <u> perlite/binder </u> :	<u> 20 </u>	%
type: <u> paint </u> :	<u> 3 </u>	%
type: <u> </u> :	<u> </u>	%
		total nonfibrous: <u> 23 </u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-1</u>	AAIS Sample No.:	<u>252</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>brown/white plaster</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u><1</u>	%
synthetics:	<u>1</u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u>1</u> %

NONFIBROUS MATERIAL:		
type: sand	<u>35</u>	%
type: gypsum/carbonate	<u>64</u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u>99</u> %

comments:

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-2</u>	AAIS Sample No.:	<u>253</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>brown/white plaster</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
total ASBESTOS: <u> nd </u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min wool:	<u> </u>	%
cellulose:	<u> <1 </u>	%
synthetics:	<u> 1 </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
total other fibrous: <u> 1 </u> %		

NONFIBROUS MATERIAL:		
type:	<u>sand</u>	<u> 35 </u> %
type:	<u>gypsum/carbonate</u>	<u> 62 </u> %
type:	<u>paint</u>	<u> 2 </u> %
total nonfibrous: <u> 99 </u> %		

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-3</u>	AAIS Sample No.:	<u>254</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>brown/white plaster</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> <1 </u>	%
synthetics:	<u> 1 </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> 1 </u> %

NONFIBROUS MATERIAL:		
type:	<u> sand </u>	<u> 35 </u> %
type:	<u> gypsum/carbonate </u>	<u> 62 </u> %
type:	<u> paint </u>	<u> 2 </u> %
		total nonfibrous: <u> 99 </u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-4</u>	AAIS Sample No.:	<u>255</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>brown/white plaster</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u><1</u>	%
synthetics:	<u>1</u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u>1</u> %

NONFIBROUS MATERIAL:		
type:	<u>sand</u>	<u>35</u> %
type:	<u>gypsum/carbonate</u>	<u>62</u> %
type:	<u>paint</u>	<u>2</u> %
		total nonfibrous: <u>99</u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>HP1-5</u>	AAIS Sample No.: <u>256</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>brown/white plaster</u>	
ASBESTOS: <u> </u> present <u> x </u> not detected	
Chrysotile: _____	%
Amosite: _____	%
other: _____	%
total ASBESTOS: <u> nd </u> %	
OTHER FIBROUS MATERIAL:	
fbgls/min. wool: _____	%
cellulose: <u> <1 </u>	%
synthetics: <u> 1 </u>	%
other: _____	%
other: _____	%
total other fibrous: <u> 1 </u> %	
NONFIBROUS MATERIAL:	
type: <u> sand </u>	35 %
type: <u>gypsum/carbonate</u>	62 %
type: <u> paint </u>	2 %
total nonfibrous: <u> 99 </u> %	
comments:	

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets applied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-6</u>	AAIS Sample No.:	<u>257</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>brown/white plaster</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
total ASBESTOS: <u> nd </u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min wool:	<u> </u>	%
cellulose:	<u> <1 </u>	%
synthetics:	<u> 1 </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
total other fibrous: <u> 1 </u> %		

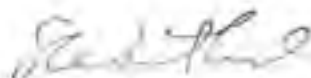
NONFIBROUS MATERIAL:		
type:	<u> sand </u>	<u> 35 </u> %
type:	<u> gypsum/carbonate </u>	<u> 62 </u> %
type:	<u> paint </u>	<u> 2 </u> %
total nonfibrous: <u> 99 </u> %		

comments:

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>HP1-7</u>	AAIS Sample No.:	<u>258</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>brown/white plaster</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
total ASBESTOS: <u> nd </u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> <1 </u>	%
synthetics:	<u> 1 </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
total other fibrous: <u> 1 </u> %		


NONFIBROUS MATERIAL:		
type: sand	<u> 35 </u>	%
type: gypsum/carbonate	<u> 62 </u>	%
type: paint	<u> 2 </u>	%
total nonfibrous: <u> 99 </u> %		

comments:

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>FT1-1A</u>	AAIS Sample No.: <u>259</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>gray floor tile</u>	

ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected
Chrysotile: _____ %
Amosite: _____ %
other: _____ %
total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:
fbgls/min. wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ %
other: _____ %
total other fibrous: _____ %

NONFIBROUS MATERIAL:
type: <u>calcite</u> _____ 35 %
type: <u>vinyl</u> _____ 65 %
type: _____ %
total nonfibrous: <u>100</u> %

comments: _____

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Analyst Signature



Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.

P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT1-1B</u>	AAIS Sample No.:	<u>260</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>yellow mastic</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %


NONFIBROUS MATERIAL:		
type: <u> carbonate glue </u> :	<u> 100 </u>	%
type: <u> </u> :	<u> </u>	%
type: <u> </u> :	<u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT1-2A</u>	AAIS Sample No.:	<u>261</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>gray floor tile</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____	%
	total ASBESTOS:	<u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	_____	%
cellulose:	_____	%
synthetics:	_____	%
other:	_____	%
other:	_____	%
	total other fibrous:	_____ %

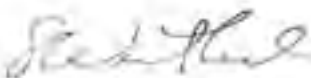
NONFIBROUS MATERIAL:		
type: calcite	_____	35 %
type: vinyl	_____	65 %
type:	_____	%
	total nonfibrous:	<u>100</u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u> Client Sample No.: <u>FT1-2B</u> Analyst: <u>sw</u> Description: <u>yellow mastic</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>262</u> Date: <u>4/26/02</u>
ASBESTOS: <u> </u> present <u> x </u> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ %	total ASBESTOS: <u> nd </u> %
OTHER FIBROUS MATERIAL:	
fbgls/min. wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ % other: _____ %	total other fibrous: _____ %
NONFIBROUS MATERIAL:	
type: <u> carbonate glue </u> : <u> 100 </u> % type: _____ : _____ % type: _____ : _____ %	total nonfibrous: <u> 100 </u> %
comments: _____	

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT1-3A</u>	AAIS Sample No.:	<u>263</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>gray floor tile</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min, wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

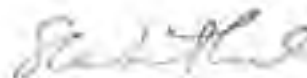
NONFIBROUS MATERIAL:		
type: calcite	<u> 35 </u>	%
type: vinyl	<u> 65 </u>	%
type:	<u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT1-3B</u>	AAIS Sample No.:	<u>264</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>yellow mastic</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

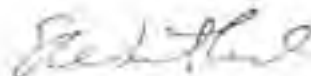
NONFIBROUS MATERIAL:		
type: <u>carbonate glue</u>	<u>100</u>	%
type: <u> </u>	<u> </u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u>100</u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT2-1A</u>	AAIS Sample No.:	<u>265</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>beige floor tile</u>		

ASBESTOS:	<input checked="" type="checkbox"/> present	<input type="checkbox"/> not detected
Chrysotile:	<u>6</u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u>6</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

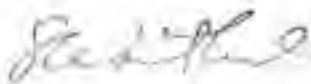
NONFIBROUS MATERIAL:		
type: calcite	<u>30</u>	%
type: vinyl	<u>64</u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u>94</u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT2-1B</u>	AAIS Sample No.:	<u>266</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>black mastic</u>		

ASBESTOS:	<input checked="" type="checkbox"/> present	<input type="checkbox"/> not detected
Chrysotile:	<u>5</u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u>5</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type:	<u>tar matrix</u>	<u>95</u> %
type:	<u> </u>	%
type:	<u> </u>	%
		total nonfibrous: <u>95</u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT3-1A</u>	AAIS Sample No.:	<u>271</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>blue floor tile</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

NONFIBROUS MATERIAL:		
type: calcite	<u> 35 </u>	%
type: vinyl	<u> 65 </u>	%
type:	<u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments:

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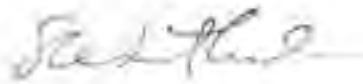
BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u> Client Sample No.: <u>FT3-1B</u> Analyst: <u>sw</u> Description: <u>yellow mastic</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>272</u> Date: <u>4/26/02</u>
ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ %	total ASBESTOS: <u>nd</u> %
OTHER FIBROUS MATERIAL:	
fbgls/min. wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ % other: _____ %	total other fibrous: _____ %
NONFIBROUS MATERIAL:	
type: <u>carbonate glue</u> : <u>100</u> % type: _____ : _____ % type: _____ : _____ %	total nonfibrous: <u>100</u> %
comments: _____	

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>FT3-2A</u>	AAIS Sample No.: <u>273</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>blue floor tile</u>	

ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected
Chrysotile: _____ %
Amosite: _____ %
other: _____ %
total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:
fbgls/min. wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ %
other: _____ %
total other fibrous: _____ %

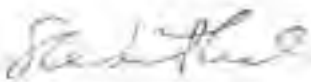
NONFIBROUS MATERIAL:
type: <u>calcite</u> : <u>35</u> %
type: <u>vinyl</u> : <u>65</u> %
type: _____ : _____ %
total nonfibrous: <u>100</u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>FT3-2B</u>	AAIS Sample No.: <u>274</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>yellow mastic</u>	

ASBESTOS: present x not detected

Chrysotile: _____ %
Amosite: _____ %
other: _____ %

total ASBESTOS: nd %

OTHER FIBROUS MATERIAL:

fbgls/min. wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ %
other: _____ %

total other fibrous: _____ %

NONFIBROUS MATERIAL:

type: carbonate glue 100 %
type: _____ %
type: _____ %

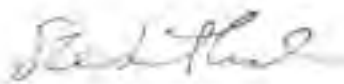
total nonfibrous: 100 %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>FT3-3A</u>	AAIS Sample No.: <u>275</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>blue floor tile</u>	

ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected
Chrysotile: _____ %
Amosite: _____ %
other: _____ %
total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:
fbgls/min. wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ %
other: _____ %
total other fibrous: _____ %

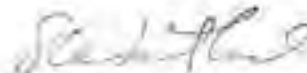
NONFIBROUS MATERIAL:
type: <u>calcite</u> : <u>35</u> %
type: <u>vinyl</u> : <u>65</u> %
type: _____ : _____ %
total nonfibrous: <u>100</u> %

comments: _____

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Analyst Signature



Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.

P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT3-3B</u>	AAIS Sample No.:	<u>276</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>yellow mastic</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

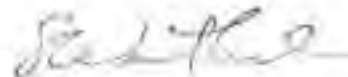
NONFIBROUS MATERIAL:		
type: <u> carbonate glue </u>	<u> 100 </u>	%
type: <u> </u>	<u> </u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

* Since most of the vinyl floor tiles marketed in the late sixties to mid-seventies contained asbestos, and because some of the asbestos was milled so fine as to be below the detection limits of current PLM techniques, the presence of any detectable asbestos by PLM is an indication the tile is ACM.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-1A</u>	AAIS Sample No.:	<u>277</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>dark blue floor tile</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	_____	%
cellulose:	_____	%
synthetics:	_____	%
other:	_____	%
other:	_____	%
		total other fibrous: _____ %

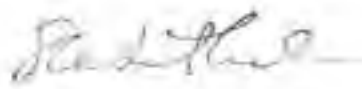
NONFIBROUS MATERIAL:		
type: calcite	_____	35 %
type: vinyl	_____	65 %
type:	_____	%
		total nonfibrous: <u>100</u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-1B</u>	AAIS Sample No.:	<u>278</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>yellow mastic</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

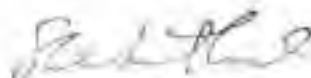
NONFIBROUS MATERIAL:		
type: <u>carbonate glue</u>	<u>100</u>	%
type: <u> </u>	<u> </u>	%
type: <u> </u>	<u> </u>	%
		total nonfibrous: <u>100</u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-2A</u>	AAIS Sample No.:	<u>279</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>dark blue floor tile</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

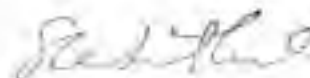
NONFIBROUS MATERIAL:		
type: calcite	<u> 35 </u>	%
type: vinyl	<u> 65 </u>	%
type:	<u> </u>	%
		total nonfibrous: <u> 100 </u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>FT4-2B</u>	AAIS Sample No.: <u>280</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>yellow mastic</u>	

ASBESTOS: <u> </u> present <u> x </u> not detected
Chrysotile: _____ %
Amosite: _____ %
other: _____ %
total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:
fibrls/min. wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ %
other: _____ %
total other fibrous: _____ %

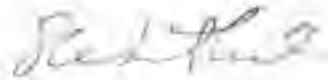
NONFIBROUS MATERIAL:
type: <u> carbonate glue </u> : <u> 100 </u> %
type: _____ : _____ %
type: _____ : _____ %
total nonfibrous: <u> 100 </u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-3A</u>	AAIS Sample No.:	<u>281</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>dark blue floor tile</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____	%
total ASBESTOS:		<u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	_____	%
cellulose:	_____	%
synthetics:	_____	%
other:	_____	%
other:	_____	%
total other fibrous:		_____ %

NONFIBROUS MATERIAL:		
type:	<u>calcite</u>	<u>35</u> %
type:	<u>vinyl</u>	<u>65</u> %
type:	_____	%
total nonfibrous:		<u>100</u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>FT4-3B</u>	AAIS Sample No.:	<u>282</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>yellow mastic</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	_____	%
cellulose:	_____	%
synthetics:	_____	%
other:	_____	%
other:	_____	%
		total other fibrous: _____ %

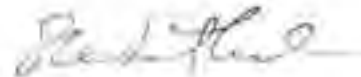
NONFIBROUS MATERIAL:		
type: <u>carbonate glue</u>	: <u>100</u>	%
type: _____	: _____	%
type: _____	: _____	%
		total nonfibrous: <u>100</u> %

comments:

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CB1-1A</u>	AAIS Sample No.:	<u>283</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>black cove base</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:		
fogs/min wool:	_____	%
cellulose:	_____	%
synthetics:	_____	%
other:	_____	%
other:	_____	%
		total other fibrous: _____ %

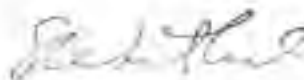
NONFIBROUS MATERIAL:		
type: calcite	_____	35 %
type: rubber/vinyl	_____	65 %
type: _____	_____	%
		total nonfibrous: <u>100</u> %

comments: _____

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Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CB1-1B</u>	AAIS Sample No.:	<u>284</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>gray/yellow mastic</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____	%
		total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:		
fbgls/min. wool:	_____	%
cellulose:	_____	%
synthetics:	_____	%
other:	_____	%
other:	_____	%
		total other fibrous: _____ %

NONFIBROUS MATERIAL:		
type: <u>carbonate glue</u>	<u>100</u>	%
type: _____	_____	%
type: _____	_____	%
		total nonfibrous: <u>100</u> %

comments:

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Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CB1-2A</u>	AAIS Sample No.:	<u>285</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>black cove base</u>		

ASBESTOS:	<u> </u> present	<u> x </u> not detected
Chrysotile:	<u> </u>	%
Amosite:	<u> </u>	%
other:	<u> </u>	%
		total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:		
fbgts/min. wool:	<u> </u>	%
cellulose:	<u> </u>	%
synthetics:	<u> </u>	%
other:	<u> </u>	%
other:	<u> </u>	%
		total other fibrous: <u> </u> %

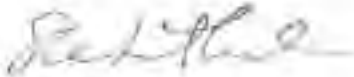
NONFIBROUS MATERIAL:		
type:	<u> calcite </u>	<u> 35 </u> %
type:	<u> rubber/vinyl </u>	<u> 65 </u> %
type:	<u> </u>	<u> </u> %
		total nonfibrous: <u> 100 </u> %

comments: _____

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u> Client Sample No.: <u>CB1-2B</u> Analyst: <u>sw</u> Description: <u>gray/yellow mastic</u>	AAIS Project No.: <u>15085</u> AAIS Sample No.: <u>286</u> Date: <u>4/26/02</u>
ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected	
Chrysotile: _____ % Amosite: _____ % other: _____ % <div style="text-align: right;">total ASBESTOS: <u>nd</u> %</div>	
OTHER FIBROUS MATERIAL: fgls/min wool: _____ % cellulose: _____ % synthetics: _____ % other: _____ % other: _____ % <div style="text-align: right;">total other fibrous: _____ %</div>	
NONFIBROUS MATERIAL: type: <u>carbonate glue</u> <u>100</u> % type: _____ % type: _____ % <div style="text-align: right;">total nonfibrous: <u>100</u> %</div>	
comments: _____	

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BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>CB1-3A</u>	AAIS Sample No.:	<u>287</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>black cove base</u>		

ASBESTOS:	<input type="checkbox"/> present	<input checked="" type="checkbox"/> not detected
Chrysotile:	_____	%
Amosite:	_____	%
other:	_____	%
total ASBESTOS: <u>nd</u> %		

OTHER FIBROUS MATERIAL:		
fbgls/min wool	_____	%
cellulose:	_____	%
synthetics:	_____	%
other:	_____	%
other:	_____	%
total other fibrous: _____ %		

NONFIBROUS MATERIAL:		
type: calcite	_____	35 %
type: rubber/vinyl	_____	65 %
type: _____	_____	%
total nonfibrous: <u>100</u> %		

comments: _____

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P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>CB1-3B</u>	AAIS Sample No.: <u>288</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>gray/yellow mastic</u>	

ASBESTOS: <u> </u> present <u> x </u> not detected
Chrysotile: _____ %
Amosite: _____ %
other: _____ %
total ASBESTOS: <u> nd </u> %

OTHER FIBROUS MATERIAL:
fbgls/min. wool: _____ %
cellulose: _____ %
synthetics: _____ %
other: _____ %
other: _____ %
total other fibrous: _____ %

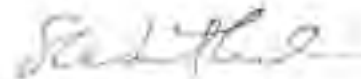
NONFIBROUS MATERIAL:
type: <u>carbonate glue</u> <u> 100 </u> %
type: _____ %
type: _____ %
total nonfibrous: <u> 100 </u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

* Since most of the vinyl floor tiles marketed in the late sixties to mid-seventies contained asbestos, and because some of the asbestos was milled so fine as to be below the detection limits of current PLM techniques, the presence of any detectable asbestos by PLM is an indication the tile is ACM.

Analyst Signature



Stephen H. Westbrook, President

ASBESTOS ANALYSIS AND INFORMATION SERVICE, INC.
P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project: <u>NFE/01-117 Vance</u>	AAIS Project No.: <u>15085</u>
Client Sample No.: <u>PF1-1</u>	AAIS Sample No.: <u>289</u>
Analyst: <u>sw</u>	Date: <u>4/26/02</u>
Description: <u>gray TSI</u>	

ASBESTOS: <input type="checkbox"/> present <input checked="" type="checkbox"/> not detected
Chrysotile: _____ %
Amosite: _____ %
other: _____ %
total ASBESTOS: <u>nd</u> %

OTHER FIBROUS MATERIAL:	
fbgls/min. wool: _____	<u>15</u> %
cellulose: _____	<u>1</u> %
synthetics: _____	_____ %
other: _____	_____ %
other: _____	_____ %
total other fibrous:	<u>16</u> %

NONFIBROUS MATERIAL:	
type: <u>blender</u>	<u>84</u> %
type: _____	_____ %
type: _____	_____ %
total nonfibrous:	<u>84</u> %

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

* Since most of the vinyl floor tiles marketed in the late sixties to mid-seventies contained asbestos, and because some of the asbestos was milled so fine as to be below the detection limits of current PLM techniques, the presence of any detectable asbestos by PLM is an indication the tile is ACM.

Analyst Signature



Stephen H. Westbrook, President

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P.O. Box 837, 603 North Baker St., Four Oaks, NC, 27524
919-963-2898

BULK ASBESTOS TEST REPORT NVLAP ACCREDITATION 101261

Client/Project:	<u>NFE/01-117 Vance</u>	AAIS Project No.:	<u>15085</u>
Client Sample No.:	<u>PI1-1</u>	AAIS Sample No.:	<u>292</u>
Analyst:	<u>sw</u>	Date:	<u>4/26/02</u>
Description:	<u>white TSI</u>		

ASBESTOS:	<u> x </u> present	<u> </u> not detected
Chrysotile:	<u> 3 </u>	<u> </u> %
Amosite:	<u> 12 </u>	<u> </u> %
other:	<u> </u>	<u> </u> %
		total ASBESTOS: <u> 15 </u> %

OTHER FIBROUS MATERIAL:	
fbgls/min. wool:	<u> </u> %
cellulose:	<u> 2 </u> %
synthetics:	<u> </u> %
other:	<u> </u> %
other:	<u> </u> %
total other fibrous: <u> 2 </u> %	

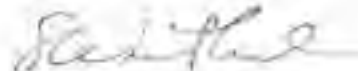
NONFIBROUS MATERIAL:	
type: <u>carbonate binder</u>	<u> 83 </u> %
type: <u> </u>	<u> </u> %
type: <u> </u>	<u> </u> %
total nonfibrous: <u> 83 </u> %	

comments: _____

note: This analysis was performed as recommended by EPA in Test Method "EPA/ 600/R-93/116" and suggestion sheets supplied to labs. These results are determined only from the above one sample. Extrapolation of results to cover large areas should incorporate a random sampling scheme and agreement of multiple samples' results. NVLAP accreditation does not imply government endorsement of individual sample analyses. Percentages listed represent midpoints of ranges with expected error decreasing with higher percentage values. This report shall not be reproduced except in full without written permission of AAIS, Inc.

* Since most of the vinyl floor tiles marketed in the late sixties to mid-seventies contained asbestos, and because some of the asbestos was milled so fine as to be below the detection limits of current PLM techniques, the presence of any detectable asbestos by PLM is an indication the tile is ACM.

Analyst Signature



Stephen H. Westbrook, President

SCHNEIDER LABORATORIES INCORPORATED

2512 W. Cary Street • Richmond, Virginia • 23220-5117
804-353-6778 • 800-785-LABS (5227) • (FAX) 804-353-6928

Excellence in Service and Technology

AIHA/ELLAP 100527, NVLAP 1150, NYELAP 11413, CAELAP 2078, NC 593, SC 93003

LABORATORY ANALYSIS REPORT

Lead Analysis by EPA 3050B/7420 Method

ACCOUNT #: 2178-02-10
CLIENT: NFE TECHNOLOGIES, INC.
ADDRESS: 250 DOMINION DRIVE
MORRISVILLE, NC 27560

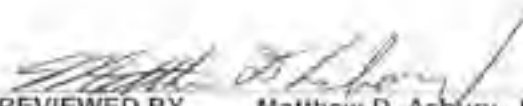
DATE COLLECTED: 4/18/2002
DATE RECEIVED: 4/23/2002
DATE ANALYZED: 4/23/2002
DATE REPORTED: 4/23/2002

PO NO.:
PROJECT NAME: FSU
PROJECT NO.: 01-117
JOB LOCATION: Vance Hall

SAMPLE TYPE: PAINT

SLI Sample No.	Client Sample No.	Sample Description	Sample Wt (mg)	Dilution Factor	Total Lead (µg)*	Lead Conc (% by wt)
2253419	Vance DFP1	RA Office Dr Frame	468	1	376.3	0.080
2253420	Vance WP1	Conc Block Wall	607	1	380.7	0.063
2253421	Vance WP2	Laundry Wall	392	1	< 20.0	< 0.005
2253422	Vance CP1	Lounge Ceiling	437	1	< 20.0	< 0.005
2253423	Vance DP1	Rm 108 Dr	499	1	376.3	0.075
2253424	Vance LFP1	RA Office Light Fix	315	1	< 20.0	< 0.006
	QC - 2167B	10.0 ppm Calibration Std			982.6	98.3%
	QC - 2167B	200 µg spike			213.8	106.9%
	QC - 2167B	5.0 ppm Calibration Std			490.6	98.1%
	QC - 2167B	Blank			< 20.0	
	QC - 2167B	NIST 2710 Standard			574.0	103.8%

ANALYST: DEREK L. JACKSON
Total no. of pages in report = /


REVIEWED BY Matthew D. Asbury, Dept. Head

*Minimum Reporting Limit: 20 µg Total Lead. For work involving HUD, child-occupied building and other residential work, the Federal Lead-Based Paint Poison Prevention Act (200 µg/lb). The requirements of the 3050B Lead in Construction Standard, 29 CFR 1926.62, are invoked if any lead is present in the sample; there is no minimum concentration. *For true values, assume two (2) significant figures. All testing is performed in strict accordance with Schneider Laboratories, Inc. protocol.*



Schneider Laboratories, Inc.

2512 West Gory Street Richmond, Virginia 23220-5117
804-365-6778 • 800-795-LABS (5227) • Fax 804-353-8928
www.slabinc.com e-mail: lab@slabinc.com

Submitting Co. NFE TECHNOLOGIES, INC

MORRISVILLE NC 27560

27802-10

2178

Project Name: F54
Project Location: Vance Hall
Project Number: 01-117
Purchase Order No. _____

Special Instructions (include requests for special reporting or data packages)
E-mail results to:
mailbox@nfe-tech.com

Phone #
(919) 469-4800

Fax #
(919) 319-8400

Turn Around Time	Matrix / Sample Type (Select ONE)	Tests / Analytes (Select ALL that Apply)		
<input checked="" type="checkbox"/> 1 Week	AC samples (if any) should be of <u>CLASS</u> (see 1010 - The additional forms or contact)	Asbestos Air / Fiber Counts	Asbestos Bulk / Ash ID	Metals - Total Count
<input type="checkbox"/> 2 Week	<input type="checkbox"/> Air <input type="checkbox"/> Soil	<input type="checkbox"/> PCM (NIOSH 7081)	<input type="checkbox"/> PLM (EPA 8157)	<input checked="" type="checkbox"/> PCBs Metal Profile
<input type="checkbox"/> STANDARD 3 days	<input type="checkbox"/> Apparel <input type="checkbox"/> Water	<input type="checkbox"/> TEM (AMERA)	<input type="checkbox"/> PLM (EPA 8157)	<input type="checkbox"/> _____
<input type="checkbox"/> Turnaround 1-2 P (10)	<input type="checkbox"/> Bulk <input type="checkbox"/> Wastewater	<input type="checkbox"/> TEM (EPA Lead II)	<input type="checkbox"/> PLM (Qualitative only)	<input type="checkbox"/> _____
<input type="checkbox"/> Expedite	<input type="checkbox"/> SW-846 Phase (MASH)	<input type="checkbox"/> _____	<input type="checkbox"/> NYELAP (EPA 8157)	<input type="checkbox"/> _____
	<input type="checkbox"/> SW-846 Filter (EPA)	Miscellaneous Tests	<input type="checkbox"/> CARLAP (EPA 8157)	Extraction Procedures
	<input checked="" type="checkbox"/> TFM	<input type="checkbox"/> Total Diss (NIOSH 9900)	<input type="checkbox"/> TEM (Qualitative)	<input type="checkbox"/> TCLP / Lead
	<input type="checkbox"/> Wigs	<input type="checkbox"/> Resp. Dust (NIOSH 9903)	<input type="checkbox"/> _____	<input type="checkbox"/> TCLP / RCRA Metals
	<input type="checkbox"/> Wipes (Composite)	<input type="checkbox"/> (Sick) - FTM (NIOSH 7081)	FOR ASBESTOS AIR:	<input type="checkbox"/> TCLP / PULP (sw/vegetation)
	<input type="checkbox"/> _____	<input type="checkbox"/> (Sick) - XRD (NIOSH 7082)	TYPE OF RESPIRATOR _____	<input type="checkbox"/> _____
	<input type="checkbox"/> _____	<input type="checkbox"/> _____	USED _____	<input type="checkbox"/> _____

ORGANICS TESTS and other Analytes
NOTE: All samples for organics should be kept at 4°C from collection until testing. Schedule such analyses in advance. Indicate preservatives added & media type. Indicate analytic method for organics tests.

Sample ID	Region		Sample Description (e.g., Building, Soil, Bulk Material)	Notes		Information for Air Samples				Temp (in °C)	Humidity (in %)	
	State	City		Wind (in m/s)	Type (e.g., P, R)	Time	Flow Rate	Flow Rate	Flow Rate			
Vance DP-1	NC		Door Frame - RA Office									
Vance WP-1	NC		wall - concrete block, RA									
Vance WP-2	NC		wall - Laundry									
Vance CP-1	NC		Ceiling - Lounge									
Vance DP-1	NC		door - Rm 10B									
Vance LP-1	NC		Light fixture - RA Office									

Sample Collection & Custody Information

Sampled by (NAME) H.W. Boyd (SIGNATURE) [Signature] (DATE/TIME) 4/18/02 STATE where samples were collected: NC

Collected by (NAME) H.W. Boyd (SIGNATURE) [Signature] (DATE/TIME) 4/18/02 0900 Sample return requested

Received by (NAME) [Signature] (SIGNATURE) [Signature] (DATE/TIME) 4/23/02 Ambient temp Cool pH Yes No

Waybill # 6468159716 Res. Cl Yes No

Client: Waybill

ASBESTOS BULK SAMPLING PHOTOGRAPHS

**PHOTOGRAPHS OF ASBESTOS BULK SAMPLING
BRYANT HALL AND VANCE HALL
FAYETTEVILLE UNIVERSITY
EEC INC SURVEY PROJECTS
PROJECT NO.: N-21-011**



PHOTO No. 1

Typical View In Bryant Hall Negative Brown Glue Adhesive In Restrooms



PHOTO No. 2

Typical View In Vance Hall First Floor Positive Thermal System Insulation (TSI) That Remains On Fiberglass Pipeline. Located In Various Locations on First Floor



PHOTO No. 3

Typical View In Vance Hall First Floor of Positive TSI Elbows That Remains On Fiberglass Pipeline. Located In Various Locations on First Floor



PHOTO No. 4

Another View In Vance Hall First Floor of Positive TSI That Remains On Fiberglass Pipeline In Various Locations on First Floor

**PHOTOGRAPHS OF ASBESTOS BULK SAMPLING
BRYANT HALL AND VANCE HALL
FAYETTEVILLE UNIVERSITY
EEC INC SURVEY PROJECTS
PROJECT NO.: N-21-011**



PHOTO No. 5

Another View In Vance Hall First Floor of Positive TSI Elbows That Remains On Fiberglass Pipelines Located In Various Locations on First Floor



PHOTO No. 6

Another View In Vance Hall First Floor of Positive Identified TSI Pipeline Located In Various Locations on First Floor



PHOTO No. 7

Typical View of Bulk Roof Core Sampling At Vance Hall



PHOTO No. 8

Typical View of Roof Flashing Bulk Sampling At Vance Hall

**PHOTOGRAPHS OF ASBESTOS BULK SAMPLING
BRYANT HALL AND VANCE HALL
FAYETTEVILLE UNIVERSITY
EEC INC SURVEY PROJECTS
PROJECT NO.: N-21-011**



PHOTO No. 9

Typical View of Bulk Window Caulking Sampling At Bryant and Vance Halls



PHOTO No. 10

Typical View of Bulk Sampling of Exterior Expansion Caulking at Vance Hall



May 24, 2021

Mr. David Clinton, AIA, NCARB, REFP
Szostak Design, Inc.
310 ½ West Franklin Street
Chapel Hill, NC 27516

**RE: Lead-Based Paint Survey & Other Hazardous Materials
Bryant and Vance Halls
Fayetteville State University
Fayetteville, North Carolina
AEC Project #21046**

Mr. Clinton:

Affinity Environmental Consulting, LLC performed a hazardous materials assessment for lead-based paint and other hazardous materials at the above referenced site. Please find the final report attached.

Thank you for the opportunity to be of service. If you have any questions or need additional information, please do not hesitate to call.

Sincerely,
Affinity Environmental Consulting, LLC

A handwritten signature in black ink, appearing to read 'Mike Cook', is written over a light blue horizontal line.

Mike Cook, CIEC
President

Attachment



Lead-Based Paint Survey
&
Other Hazardous Material Assessment
for
Bryant & Vance Halls
Fayetteville State University
Fayetteville, North Carolina

AEC Project #21046

Prepared For:

Szostak Design, Inc.
310 ½ West Franklin Street
Chapel Hill, NC 27516

Prepared By:

Affinity Environmental Consulting, LLC
P.O. Box 7153
Asheville, NC 28802

Report Prepared: May 24, 2021

Asbestos Inspector: Mike Cook, NC Accreditation #12016

Lead Inspector: Mike Cook, NC Accreditation #120218

TABLE OF CONTENTS

- 1.0 Limited Asbestos Bulk Sampling
- 2.0 Lead-Based Paint Survey
 - 2.1 Summary
 - 2.2 Disclaimer
 - 2.3 Results
 - 2.4 Recommendations & Requirements
- 3.0 Hazard Assessment of Other Materials

APPENDICES

- APPENDIX A - Limited Asbestos Bulk Sample Laboratory Analysis Data
- APPENDIX B - Lead Survey XRF Results
- APPENDIX C - Photographs

1.0 Limited Asbestos Bulk Sample Collection

On May 18th, 2021, Affinity Environmental Consulting, LLC (AEC) collected limited bulk samples of concrete block wall filler material at Bryant and Vance Halls located on the Fayetteville State University campus located in Fayetteville, North Carolina. AEC was retained by Szostak Design, Inc. via Affinity Energy & Environmental Engineers, PA to conduct the sampling prior to demolition of the buildings. The sampling was conducted in addition to the EEC Inc. asbestos inspection report for Bryant and Vance Halls conducted in March 2021. Fayetteville State University Facilities, Planning, and Construction has a copy of that report.

The samples were shipped via FedEx to SAI, an NVLAP accredited laboratory, in Greensboro, North Carolina for PLM analysis. PLM is the EPA approved method for analyzing bulk samples for asbestos. This method utilizes a light microscope equipped with polarizing filters. The identification of asbestos fibers is determined by the visual properties displayed when the sample is treated with various dispersion staining liquids. The actual structure of the fiber and the effect of polarized light on the fiber substantiate identification. The limit of detection of asbestos by PLM is about 1 percent by area; thus, samples containing less than 1 percent of asbestos are not reliably detected by this technique. The PLM method does determine both the percent (1% or above) and type of asbestos in the bulk sample. Following are the results of the sampling.

TABLE 1 – CMU Wall Coating Limited Asbestos Bulk Sampling			
Sample #	Material	Location	Asbestos Content
B-01-01	CMU Wall Coating	Bryant Hall – 3 rd Floor	None Detected
B-01-02	CMU Wall Coating	Bryant Hall – 2nd Floor	None Detected
B-01-03	CMU Wall Coating	Bryant Hall – 1st Floor	None Detected
V-01-01	CMU Wall Coating	Vance Hall – 1st Floor	None Detected
V-01-02	CMU Wall Coating	Vance Hall – 1st Floor	None Detected
V-01-03	CMU Wall Coating	Vance Hall – 2nd Floor	None Detected

No asbestos was detected in the concrete block wall coatings. Please find laboratory analysis data sheets attached. Laboratory analysis data is attached in Appendix A.

END OF SECTION

2.0 Lead-Based Paint Survey Report

2.1 SUMMARY: On March 18th, 2021, Affinity Environmental Consulting, LLC (AEC) performed a lead-based paint survey of Bryant and Vance Halls located on the Fayetteville State University campus in Fayetteville, North Carolina. AEC was retained by Szostak Design, Inc. via Affinity Energy & Environmental Engineers, PA to perform the survey prior to demolition of the buildings. The LBP survey was performed on interior and exterior painted major building components of the buildings. A Niton XLp300 spectrum XRF analyzer was used for the survey.

2.2 DISCLAIMER: This is our report of X-Ray Fluorescence (XRF) analysis. The presence or absence of lead-based paint or lead-based paint hazards applies only to tested surfaces on the date of the field visit and these conditions may change due to deterioration or maintenance. Ongoing monitoring by the owner is usually necessary. Please review this report fully; including any remarks printed on each page and contact us for an explanation of any aspect of this report, written or printed, which you do not fully understand.

2.3 RESULTS: : The XRF paint survey indicates Lead-Based Paint (or lead content) at or above the federal regulatory level of 1.0 mg/cm² in the following areas:

TABLE 2 – BRYANT HALL Lead-Based Painted Components Identified					
Paint Color	Substrate	Component	Location	Result mg/cm ²	Photo
Green	Metal	Stair Components (Railings, Risers, Stringers, etc.)	All Exterior Stairwells	3.1-4.8	1
White	Porcelain	Sinks	Throughout Restrooms	6.9-9.4	2
Orange	Metal	I-Beams	Throughout Building	10.1	3

TABLE 3 – VANCE HALL Lead-Based Painted Components Identified					
Paint Color	Substrate	Component	Location	Result mg/cm ²	Photo
Green	Metal	Exterior Walkway Columns	Throughout Exterior	14.9-17.1	4
Green	Metal	Stair Components (Railings, Risers, Stringers, etc.)	All Exterior Stairwells	2.6-7.5	5
White	Porcelain	Sinks	Throughout Restrooms	8.4	6
Orange	Metal	I-Beams	Throughout Building	14.8	None

The lead-based painted or lead-containing components listed in the previous table represent all lead-containing components found in a particular building and should be treated as such unless specific locations are listed. FOR EXAMPLE, all metal painted stair components, **unless specifically tested**, should be treated as lead-containing during demolition activities. See the all XRF testing data attached in Appendix B and photographs in Appendix C.

2.4 RECOMMENDATIONS: According to the North Carolina Department of Health and Human Services (NCDHHS), any painted building component containing lead levels greater than or equal to 1.0 mg/cm² (XRF) or 0.06% by weight (paint chip analysis) must be disposed of in a construction and demolition landfill or municipal solid waste landfill (Subtitle D).

It is common knowledge throughout the lead removal industry that the OSHA PEL lead level of 50 ug/m³ is likely to be exceeded during the disturbance of painted building components with lead levels equal to or greater than 1.0 mg/cm² or 0.5% by weight. All other tested building components containing lower lead levels, less than 1.0 mg/cm², have less potential for the OSHA PEL level of 50 ug/m³ to be reached during controlled disturbance. When conducting activities that involve the disturbance of any components containing lead-based paints, OSHA Construction Standard 29 CFR 1926.62 procedures should be implemented. At a minimum, this includes, negative exposure assessments, training, medical surveillance, and personal protection. In addition, lead-based paint and lead-based painted components should be properly disposed in accordance with local, state, and federal regulations and requirements.

END OF SECTION

3.0 Hazard Assessment of Other Materials

On March 18th, 2021, Affinity Environmental Consulting, LLC (AEC) performed a visual hazard assessment of Bryant and Vance Halls located on the Fayetteville State University campus in Fayetteville, North Carolina. AEC was retained by Szostak Design, Inc. via Affinity Energy & Environmental Engineers, PA to perform the assessment prior to demolition of the buildings. The purpose of the hazard assessment was to identify potential environmental hazards other than asbestos and lead including fuel storage tanks, electrical transformers, fluorescent lighting fixtures, mercury switches, or chemicals stored on-site that should be addressed for proper handling and disposal during the demolition process. The following materials were identified that will require attention prior to demolition of Bryant and Vance Halls:

1. HID and Fluorescent Lighting Fixtures were identified throughout the interior and exterior of the buildings. Electrical transformers were also identified on the exterior of the buildings.
 - The bulbs of these lighting fixtures commonly contain Mercury. All light bulbs on the school site should be carefully removed and properly disposed of according to all federal, state, and local regulations prior to demolition. Note: A green color on the ends of the bulbs does “NOT” mean that the bulbs are mercury-free.
 - The ballast of older fluorescent and HID lighting fixtures as well as older electrical transformers commonly contain polychlorinated biphenyl’s (PCB’s). To determine PCB content on any ballast found not labeled with the “Contains No PCB’s” statement, the entire ballast must be removed and laboratory analysis performed. Any suspect PCB-containing light ballast or electrical transformers should be carefully handled and disposed of according to all federal, state, and local regulations prior to demolition.
2. No suspect mercury-containing thermostats were identified in the buildings. The controls of older thermostats commonly contain Mercury. Any mercury-containing thermostat switches found during demolition should be should be carefully removed and properly disposed of according to all federal, state, and local regulations prior to disturbance.
3. There is air conditioning equipment located throughout the building including all dorm rooms. There are also water fountains located in the building corridors. This equipment is suspected to contain Chlorinated Fluorocarbons (CFC’s) refrigerant gases. The refrigerant gases should be properly removed from all equipment and be disposed of according to all federal, state, and local regulations prior to disturbance.
4. There are various hazardous waste containers including paints and cleaning chemicals located in the buildings (Photo #7). These items should be properly removed from the building and be disposed of according to all federal, state, and local regulations prior to disturbance.
5. There is a suspect underground fuel storage tank (UST) located at the rear of the Vance Hall (Photo #8). The tank should be should be removed and properly disposed of according to all federal, state, and local regulations.
6. There are underground ground utilities (power, water, steam, drainage, gas, electrical, communications, etc.) located in and around Bryant and Vance Halls. The locations of all utility

lines should be discussed with the owner prior to disturbance to avoid damaging any existing utilities on the site during demolition.

END OF SECTION

APPENDIX A

Limited Asbestos Bulk Sample Laboratory Analysis Data



Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,
App.E



Customer: Affinity Environmental Consulting, LLC
P.O. Box 7153
Asheville, NC 28802
Project: Fayetteville State University
Attn: Mike Cook

Lab Order ID: 71965915
Analysis ID: 71965915_PLM
Date Received: 5/20/2021
Date Reported: 5/20/2021

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
B-01-01	Bryant - CMU Wall	None Detected		100% Other	Cream, Gray Non Fibrous Heterogeneous
71965915PLM_1					Dissolved
B-01-02	Bryant - CMU Wall	None Detected		100% Other	Cream, Gray Non Fibrous Heterogeneous
71965915PLM_2					Dissolved
B-01-03	Bryant - CMU Wall	None Detected		100% Other	Cream, Gray Non Fibrous Heterogeneous
71965915PLM_3					Dissolved
V-01-01	Vance - CMU Wall	None Detected		100% Other	Cream, Gray Non Fibrous Heterogeneous
71965915PLM_4					Dissolved
V-01-02	Vance - CMU Wall	None Detected		100% Other	Cream, Gray Non Fibrous Heterogeneous
71965915PLM_5					Dissolved
V-01-03	Vance - CMU Wall	None Detected		100% Other	Cream, Gray Non Fibrous Heterogeneous
71965915PLM_6					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. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Eloisa Blake (6)

Analyst

Approved Signatory



Scientific Analytical Institute
 4604 Dundas Dr. Greensboro, NC 27407
 Phone: 336.292.3888 Fax: 336.292.3313
 www.sailab.com lab@sailab.com

Lab Use Only 71965915
 Lab Order ID: _____
 Client Code: _____

Company Contact Information	
Company: Affinity Environmental Consulting, LLC	Contact: Mike Cook
Address: P.O. Box 7153	Phone <input type="checkbox"/> : (828) 508-3812
Ashville, NC 28802	Fax <input type="checkbox"/> :
	Email <input checked="" type="checkbox"/> : mcook@affinityenv.com
Billing/Invoice Information	
Company: SAME	90 Min. <input type="checkbox"/> 48 Hours <input type="checkbox"/>
Contact:	3 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>
Address:	6 Hours <input type="checkbox"/> 96 Hours <input type="checkbox"/>
	12 Hours <input checked="" type="checkbox"/> 120 Hours <input type="checkbox"/>
	24 Hours <input type="checkbox"/> 144 ^h Hours <input type="checkbox"/>

Asbestos Test Types	
PLM EPA 600/R-93/116 (PLM)	<input checked="" type="checkbox"/>
Positive stop	<input type="checkbox"/>
PLM Point Count 400 (PT4)	<input type="checkbox"/>
PLM Point Count 1000 (PTM)	<input type="checkbox"/>
PCM NIOSH 7400-A Rules (PCM)	<input type="checkbox"/>
B Rules (PCB) <input type="checkbox"/>	TWA (PTA) <input type="checkbox"/>
TEM AHERA (AHE)	<input type="checkbox"/>
TEM Level II (LII)	<input type="checkbox"/>
TEM NIOSH 7402 (TNI)	<input type="checkbox"/>
TEM Bulk Qualitative (TBL)	<input type="checkbox"/>
TEM Bulk Chatfield (TBS)	<input type="checkbox"/>
TEM Bulk Quantitative (TBQ)	<input type="checkbox"/>
TEM Wipe ASTM D6480-05	<input type="checkbox"/>
TEM Microvac ASTM D5755-02	<input type="checkbox"/>
TEM Water EPA 100.2 (TW1)	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>

PO Number: _____
Project Name/Number: Fayetteville State University

Sample ID #	Description/Location	Volume/Area	Comments
B-01-01	Bryant - CMU wall		
B-01-02	↓		
B-01-03			
V-01-01	VANEF - CMU wall		
V-01-02	↓		
V-01-03			
			Accepted <input checked="" type="checkbox"/>
			Rejected <input type="checkbox"/>

Total # of Samples 6

Relinquished by	Date/Time	Received by	Date/Time
<u>[Signature]</u>	<u>5/19/21</u>	<u>[Signature]</u>	<u>5:20 10:30A</u>

APPENDIX B

Lead Survey XRF Results

XRF PAINT TESTING DATA
 BRYANT and VANCE HALLS
 FAYETTEVILLE STATE UNIVERSITY
 FAYETTEVILLE, NC

Index	Time	Color	Substrate	Component	Location	Building	PbC mg/cm ²	Results
1	5/18/2021 9:18	WHITE	PLASTER	BOOKCASE	EXT STAIR	BRYANT	0.02	Negative
2	5/18/2021 9:19	GREEN	METAL	DOOR	EXT STAIR	BRYANT	0	Negative
3	5/18/2021 9:19	GREEN	METAL	DOOR CASE	EXT STAIR	BRYANT	0.05	Negative
4	5/18/2021 9:19	GREEN	METAL	HANDRAIL	EXT STAIR	BRYANT	4.2	Positive
5	5/18/2021 9:19	GREEN	METAL	HANDRAIL	EXT STAIR	BRYANT	3.4	Positive
6	5/18/2021 9:20	GREEN	METAL	RISER	EXT STAIR	BRYANT	4.8	Positive
7	5/18/2021 9:21	LT GREEN	METAL	GUARD RAIL	EXT STAIR	BRYANT	0	Negative
8	5/18/2021 9:22	WHITE	PLASTER	CEILING	3rd FL	BRYANT	0	Negative
9	5/18/2021 9:23	WHITE	PLASTER	CEILING	303	BRYANT	0	Negative
10	5/18/2021 9:23	WHITE	CMU	WALL	303	BRYANT	0	Negative
11	5/18/2021 9:24	GREEN	METAL	WINDOW SASH	303	BRYANT	0	Negative
12	5/18/2021 9:24	GREEN	METAL	WINDOW SILL	303	BRYANT	0	Negative
13	5/18/2021 9:25	WHITE	METAL	DOOR CASE	303	BRYANT	0.03	Negative
14	5/18/2021 9:25	WHITE	METAL	RADIATOR	3rd FL	BRYANT	0	Negative
15	5/18/2021 9:26	BROWN	WOOD	DOOR	3rd FL RR	BRYANT	0	Negative
16	5/18/2021 9:26	WHITE	PLASTER	WALL	3rd FL RR	BRYANT	0	Negative
17	5/18/2021 9:26	WHITE	PORCELAIN	SINK	3rd FL RR	BRYANT	9.4	Positive
18	5/18/2021 9:27	WHITE	PORCELAIN	SINK	3rd FL RR	BRYANT	6.9	Positive
19	5/18/2021 9:27	BEIGE	CERAMIC	WALL	3rd FL RR	BRYANT	0.4	Negative
20	5/18/2021 9:28	GREEN	CERAMIC	WALL	3rd FL RR	BRYANT	0	Negative
21	5/18/2021 9:28	WHITE	CERAMIC	WALL	3rd FL RR	BRYANT	0.01	Negative
22	5/18/2021 9:28	GREEN	CERAMIC	FLOOR	3rd FL RR	BRYANT	0	Negative
23	5/18/2021 9:28	BEIGE	CERAMIC	FLOOR	3rd FL RR	BRYANT	0	Negative
24	5/18/2021 9:30	ORANGE	METAL	I BEAM	3rd FL RR	BRYANT	10.1	Positive
25	5/18/2021 9:30	ORANGE	METAL	I BEAM	3rd FL RR	BRYANT	10.1	Positive
26	5/18/2021 9:31	BLACK	METAL	JOIST	3rd FL RR	BRYANT	0	Negative
27	5/18/2021 9:31	BLACK	METAL	JOIST	3rd FL RR	BRYANT	0	Negative
28	5/18/2021 9:33	WHITE	PLASTER	CEILING	3rd FL R LAUNDRY	BRYANT	0	Negative
29	5/18/2021 9:33	WHITE	CMU	WALL	3rd FL R LAUNDRY	BRYANT	0	Negative
30	5/18/2021 9:33	GRAY	CERAMIC	RADIATOR	3rd FL R LAUNDRY	BRYANT	0	Negative
31	5/18/2021 9:36	GREEN	METAL	HANDRAIL	3rd FL CONNECTOR	BRYANT	0	Negative
32	5/18/2021 9:37	GREEN	METAL	HANDRAIL	3rd FL CONNECTOR	BRYANT	0.01	Negative
33	5/18/2021 9:37	GREEN	METAL	COLUMN	3rd FL CONNECTOR	BRYANT	-0.18	Negative
34	5/18/2021 9:40	GRAY	CONCRETE	FLOOR	3rd FL CONNECTOR	BRYANT	0	Negative
35	5/18/2021 9:40	WHITE	CONCRETE	CEILING	3rd FL CONNECTOR	BRYANT	0.02	Negative
36	5/18/2021 9:45	GREEN	METAL	DOOR	2nd FL	BRYANT	0	Negative
37	5/18/2021 9:45	GREEN	METAL	DOOR CASE	2nd FL	BRYANT	0.01	Negative
38	5/18/2021 9:46	WHITE	PLASTER	CEILING	2nd FL 230	BRYANT	0	Negative
39	5/18/2021 9:47	WHITE	CMU	WALL	2nd FL 230	BRYANT	0	Negative
40	5/18/2021 9:47	WHITE	METAL	DOOR CASE	2nd FL 230	BRYANT	0.06	Negative
41	5/18/2021 9:48	GREEN	METAL	WINDOW SASH	2nd FL 230	BRYANT	0	Negative
42	5/18/2021 9:48	GREEN	METAL	WINDOW SILL	2nd FL 230	BRYANT	0	Negative
43	5/18/2021 9:48	WHITE	METAL	RADIATOR	2nd FL	BRYANT	0.01	Negative
44	5/18/2021 9:49	BROWN	WOOD	DOOR	2nd FL	BRYANT	0.01	Negative

XRF PAINT TESTING DATA
 BRYANT and VANCE HALLS
 FAYETTEVILLE STATE UNIVERSITY
 FAYETTEVILLE, NC

Index	Time	Color	Substrate	Component	Location	Building	PbC mg/cm ²	Results
45	5/18/2021 9:50	BEIGE	CERAMIC	WALL	2nd FL RR	BRYANT	0.3	Negative
46	5/18/2021 9:50	GREEN	CERAMIC	WALL	2nd FL RR	BRYANT	0	Negative
47	5/18/2021 9:50	BEIGE	CERAMIC	FLOOR	2nd FL RR	BRYANT	0.02	Negative
48	5/18/2021 9:53	GREEN	METAL	HANDRAIL	2nd FL MID STAIR	BRYANT	3.1	Positive
49	5/18/2021 9:53	GREEN	METAL	DOOR	2nd FL MID STAIR	BRYANT	0.01	Negative
50	5/18/2021 9:59	WHITE	CMU	WALL	1st FL	BRYANT	0	Negative
51	5/18/2021 10:00	WHITE	PLASTER	CEILING	1st FL	BRYANT	0	Negative
52	5/18/2021 10:00	WHITE	METAL	DOOR CASE	1st FL	BRYANT	0.09	Negative
53	5/18/2021 10:00	BROWN	WOOD	DOOR	1st FL	BRYANT	0	Negative
54	5/18/2021 10:01	WHITE	CMU	WALL	1st FL	BRYANT	0	Negative
55	5/18/2021 10:05	GREEN	METAL	HANDRAILS	EXTERIOR	BRYANT	0	Negative
56	5/18/2021 10:05	GREEN	METAL	HANDRAILS	EXTERIOR	BRYANT	0.3	Negative
57	5/18/2021 10:07	GREEN	METAL	WINDOW SCREEN	EXTERIOR	BRYANT	0	Negative
58	5/18/2021 10:07	GREEN	METAL	WINDOW	EXTERIOR	BRYANT	0	Negative
59	5/18/2021 10:11	GREEN	METAL	DOOR	MECH RM	BRYANT	0.3	Negative
60	5/18/2021 10:12	GRAY	CMU	WALL	MECH RM	BRYANT	0	Negative
61	5/18/2021 10:13	YELLOW	METAL	BOLLARD	MECH RM	BRYANT	0	Negative
62	5/18/2021 10:14	GREEN	METAL	FENCE	MECH RM	BRYANT	0	Negative
63	5/18/2021 10:50	GREEN	METAL	DOOR	EXTERIOR 108	VANCE	0.1	Negative
64	5/18/2021 10:50	GREEN	METAL	DOOR CASE	EXTERIOR 108	VANCE	0	Negative
65	5/18/2021 10:51	GREEN	METAL	HANDRAIL	EXTERIOR 108	VANCE	0	Negative
66	5/18/2021 10:57	GREEN	METAL	HANDRAIL	EXTERIOR 108	VANCE	0	Negative
67	5/18/2021 10:58	GREEN	METAL	COLUMN	EXTERIOR 108	VANCE	17.1	Positive
68	5/18/2021 10:58	GREEN	METAL	COLUMN	EXTERIOR 108	VANCE	14.9	Positive
69	5/18/2021 10:58	GREEN	METAL	WINDOW	EXTERIOR 108	VANCE	0	Negative
70	5/18/2021 10:59	GREEN	METAL	WINDOW	EXTERIOR 108	VANCE	0	Negative
71	5/18/2021 10:59	GREEN	METAL	DOOR	EXTERIOR 108	VANCE	0	Negative
72	5/18/2021 10:59	GREEN	METAL	DOOR CASE	EXTERIOR 108	VANCE	0	Negative
73	5/18/2021 11:00	WHITE	CONCRETE	CEILING	EXTERIOR 108	VANCE	0.02	Negative
74	5/18/2021 11:00	WHITE	CONCRETE	CEILING	EXTERIOR 108	VANCE	0.06	Negative
75	5/18/2021 11:01	WHITE	METAL	HANDRAIL	CENTER STAIR	VANCE	0.01	Negative
76	5/18/2021 11:01	WHITE	METAL	HANDRAIL	CENTER STAIR	VANCE	7.5	Positive
77	5/18/2021 11:01	WHITE	METAL	RISER	CENTER STAIR	VANCE	2.6	Positive
78	5/18/2021 11:04	WHITE	CMU	WALL	1st FL COMMONS	VANCE	0	Negative
79	5/18/2021 11:06	GREEN	PLASTER	CEILING	1st FL COMMONS	VANCE	0	Negative
80	5/18/2021 11:08	ORANGE	METAL	I BEAM	1st FL COMMONS	VANCE	14.8	Positive
81	5/18/2021 11:09	BLACK	METAL	JOIST	1st FL COMMONS	VANCE	0.01	Negative
82	5/18/2021 11:09	BLACK	METAL	JOIST	1st FL COMMONS	VANCE	0	Negative
83	5/18/2021 11:10	WHITE	WOOD	DOOR	1st FL COMMONS	VANCE	0	Negative
84	5/18/2021 11:10	WHITE	METAL	DOOR CASE	1st FL COMMONS	VANCE	0.15	Negative
85	5/18/2021 11:11	WHITE	METAL	DOOR	1st FL COMMONS	VANCE	0	Negative
86	5/18/2021 11:11	WHITE	METAL	DOOR CASE	1st FL COMMONS	VANCE	0.1	Negative
87	5/18/2021 11:11	WHITE	PLASTER	CEILING	1st FL COMMONS	VANCE	0.14	Negative
88	5/18/2021 11:14	RED	METAL	DOOR	1st FL COMMONS	VANCE	-0.06	Negative

XRF PAINT TESTING DATA
 BRYANT and VANCE HALLS
 FAYETTEVILLE STATE UNIVERSITY
 FAYETTEVILLE, NC

Index	Time	Color	Substrate	Component	Location	Building	PbC mg/cm ²	Results
89	5/18/2021 11:16	RED	CMU	WALL	1st FL 107	VANCE	0.01	Negative
90	5/18/2021 11:16	RED	CMU	WALL	1st FL 107	VANCE	0	Negative
91	5/18/2021 11:16	WHITE	PLASTER	CEILING	1st FL 107	VANCE	0	Negative
92	5/18/2021 11:16	WHITE	PLASTER	CEILING	1st FL 107	VANCE	0	Negative
93	5/18/2021 11:17	WHITE	WOOD	DOOR	1st FL 107	VANCE	0	Negative
94	5/18/2021 11:17	WHITE	METAL	DOOR CASE	1st FL 107	VANCE	0.1	Negative
95	5/18/2021 11:18	GREEN	METAL	WINDOW	1st FL 107	VANCE	0	Negative
96	5/18/2021 11:18	WHITE	PLASTER	CEILING	1st FL 107	VANCE	0.08	Negative
97	5/18/2021 11:19	BLUE	CERAMIC	WALL	1st FL 107 RR	VANCE	0.21	Negative
98	5/18/2021 11:19	BLUE	CERAMIC	FLOOR	1st FL 107 RR	VANCE	0	Negative
99	5/18/2021 11:20	WHITE	PORCELAIN	SINK	1st FL 107 RR	VANCE	8.4	Positive
100	5/18/2021 11:28	WHITE	CMU	WALL	2nd FL 210.	VANCE	0	Negative
101	5/18/2021 11:28	WHITE	CMU	WALL	2nd FL 210.	VANCE	0	Negative
102	5/18/2021 11:29	WHITE	PLASTER	CEILING	2nd FL 210.	VANCE	0	Negative
103	5/18/2021 11:29	GREEN	METAL	WINDOW	2nd FL 210.	VANCE	0	Negative
104	5/18/2021 11:29	WHITE	WOOD	DOOR	2nd FL 210.	VANCE	0	Negative
105	5/18/2021 11:30	WHITE	METAL	DOOR CASE	2nd FL 210.	VANCE	0.08	Negative
106	5/18/2021 11:30	BLUE	CERMIC	WALL	2nd FL 210 RR	VANCE	0.24	Negative
107	5/18/2021 11:31	BLUE	CERMIC	FLOOR	2nd FL 210 RR	VANCE	0	Negative
108	5/18/2021 11:31	WHITE	METAL	RADIATOR	2nd FL 210 RR	VANCE	0	Negative
109	5/18/2021 11:32	GRAY	CERAMIC	FLOOR	2nd FL LAUNDRY	VANCE	0.01	Negative
110	5/18/2021 11:33	WHITE	CMU	WALL	2nd FL LAUNDRY	VANCE	0	Negative
111	5/18/2021 11:33	WHITE	WOOD	DOOR	2nd FL LAUNDRY	VANCE	0	Negative
112	5/18/2021 11:34	WHITE	METAL	DOOR CASE	2nd FL LAUNDRY	VANCE	0.1	Negative
113	5/18/2021 11:35	GREEN	METAL	RAIL	2nd FL EXT	VANCE	0	Negative
114	5/18/2021 11:36	GREEN	METAL	RAIL	2nd FL EXT	VANCE	0	Negative
115	5/18/2021 11:36	WHITE	CONCRETE	CEILING	2nd FL EXT	VANCE	0.02	Negative
116	5/18/2021 11:40	GREEN	METAL	DOOR	2nd FL MECH RM	VANCE	0.01	Negative

APPENDIX C

Photographs

**Hazardous Materials Survey Photographs
Bryant and Vance Halls—Fayetteville State University
Fayetteville, NC**



Photograph 1 - Typical Lead-Based Paint on Stair Components (Railings, Risers, Stringers, etc.) of Bryant Hall.



Photograph 2 - Typical Lead-Containing Coating on Porcelain Sinks Located Throughout Bryant Hall.

**Hazardous Materials Survey Photographs
Bryant and Vance Halls—Fayetteville State University
Fayetteville, NC**



Photograph 3 - Typical Lead-Based Paint on Metal I-Beams Located Throughout Bryant Hall.



Photograph 4 - Typical Lead-Based Painted Support Columns Located Throughout the Exterior of Vance Hall.

**Hazardous Materials Survey Photographs
Bryant and Vance Halls—Fayetteville State University
Fayetteville, NC**



Photograph 5 - Typical Lead-Based Paint on Stair Components (Railings, Risers, Stringers, etc.) of Vance Hall.



Photograph 6 - Typical Lead-Containing Coating on Porcelain Sinks Located Throughout Vance Hall.

**Hazardous Materials Survey Photographs
Bryant and Vance Halls—Fayetteville State University
Fayetteville, NC**



Photograph 7 - Typical Hazardous Waste Containers Including Paints and Cleaning Chemicals Located in the Bryant and Vance Halls.



Photograph 8 - Suspect Underground Fuel Storage Tank (UST) Located at the Rear of Vance Hall.

