

Roanoke County Schools

Three Year AHERA Reinspection

Arnold R Burton Vo-Tech
Facility 001

Reinspection Date: January 30, 2008

Baratta & Associates, Inc
PO Box 293
Vinton, Virginia 24179
540-890-4875

Michael Baratta, PE
Virginia Asbestos Inspector License: 3303-000065
Virginia Asbestos Management Planner License: 3304-000208

Baratta & Associates, Inc.

Virginia Department of Education
Energy and Facilities Service

LEA Roanoke County Schools
School Arnold R Burton Vo-Tech
Building Main

Building Name	Location	Check here for the presence of:				No ACBM
		ACBM		Suspect ACBM		
		Friable	Non- friable	Friable	Non- friable	
Arnold R Burton Vo-Tech (01)	1760 Boulevard					
Building A	Academic	X				
Building B	East Shop		X			
Building C	West Shop					X

Inspector:

Name: Michael Baratta Signature _____ Date _____

Accreditation Number: 3303 000065 Agency: Virginia DPOR


Virginia Department of Education
Energy and Facilities Services

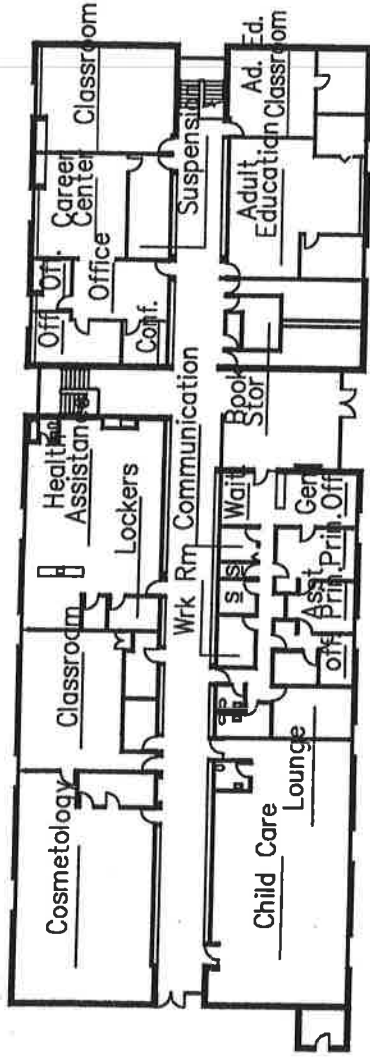
LEA Roanoke County Schools
School: 001 Arnold R Burton Vo-Tech
Building: Buildings A, B & C

DETERMINATION OF EACH
SAMPLE AREA

H-K appeared to have ignored positive samples from the water heater breeching in the Building A Mechanical Room (samples 11, 12 & 13). We assigned the breeching pipe run TSI homogeneous area A01A and the breeching fitting TSI homogeneous area A01B. We resampled them. Some uncertainty existed as to the description of the floor tiles in Building B (B02 & B03). We subdivided the H-K homogeneous areas into two subgroups to reflect the tiles and mastics and then resampled them. Other TSI samples were also obtained in January 2008

Homogeneous Area	Material	Sample Number	Location
A01A	HW heater flue pipe run TSI	A01A-1	Pipe near NE corner
		A01A-2	Riser at water heater
		A01A-3	Horizontal pipe at chimney
A01B	HW heater flue fitting TSI	A01B-1	Horizontal ELL at water heater
		A01B-2	Vertical ELL at water heater
		A01B-3	Horizontal ELL at chimney
A06	Other fitting TSI in Building A mechanical Room	A06-1	Horizontal ELL near NE corner
		A06-2	Horizontal ELL in South section
		A06-3	Valve in vertical riser at SE corner
B02A	Floor tile 12"x12" tan with brown streaks	B02A-1	Hall at 320, SW corner at lockers
		B02A-2	Hall at 311, SW corner at lockers
B02B	Tan mastic for B02A	B02B-1	Hall at 320, SW corner at lockers
		B02B-2	Hall at 311, SW corner at lockers
B03A	Floor tile 12"x12" beige with tan	B03A-1	Hall at 320, SW corner
		B03A-2	310, near center of room
B03B	Black mastic for B03A	B03B-1	Hall at 320, SW corner
		B03B-2	310, near center of room
C02	Domestic HW fitting TSI on fiberglass insulate pipe runs	C02-1	Criminal Justice Janitor Closet SE ELL
		C02-2	Criminal Justice Janitor Closet SW ELL
		C02-3	458A at hot water heater
C08	Other fitting TSI in Building C	C08-1	Vertical ELL Near E side of 430
		C08-2	Roof drain near SW corner of 430
		C08-3	Steam loop near SW corner of 430

Name: Michael Baratta Signature  Date 2/2/08
Accreditation Number: 3303 000065 Agency: Virginia DPOR

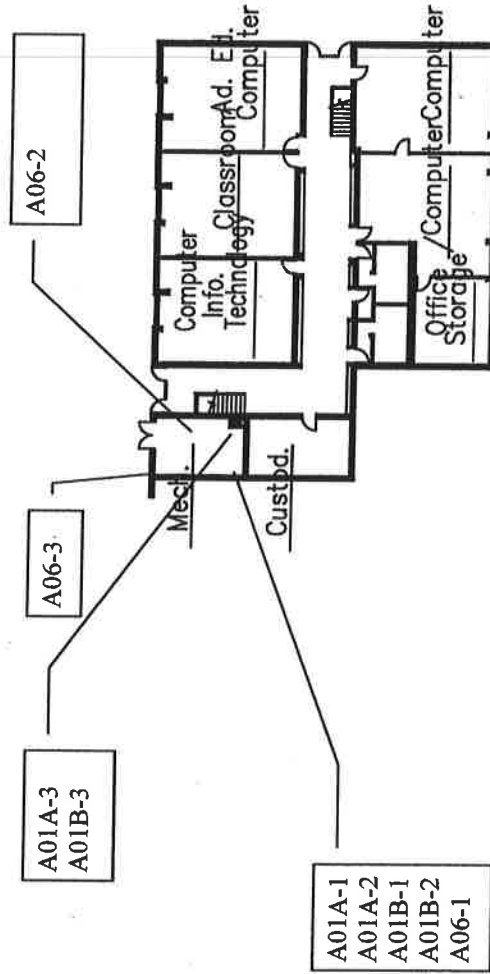


A01A Breaching TSI on HW heater pipe runs
 Samples A01A-1, A01A-2, A01A-3

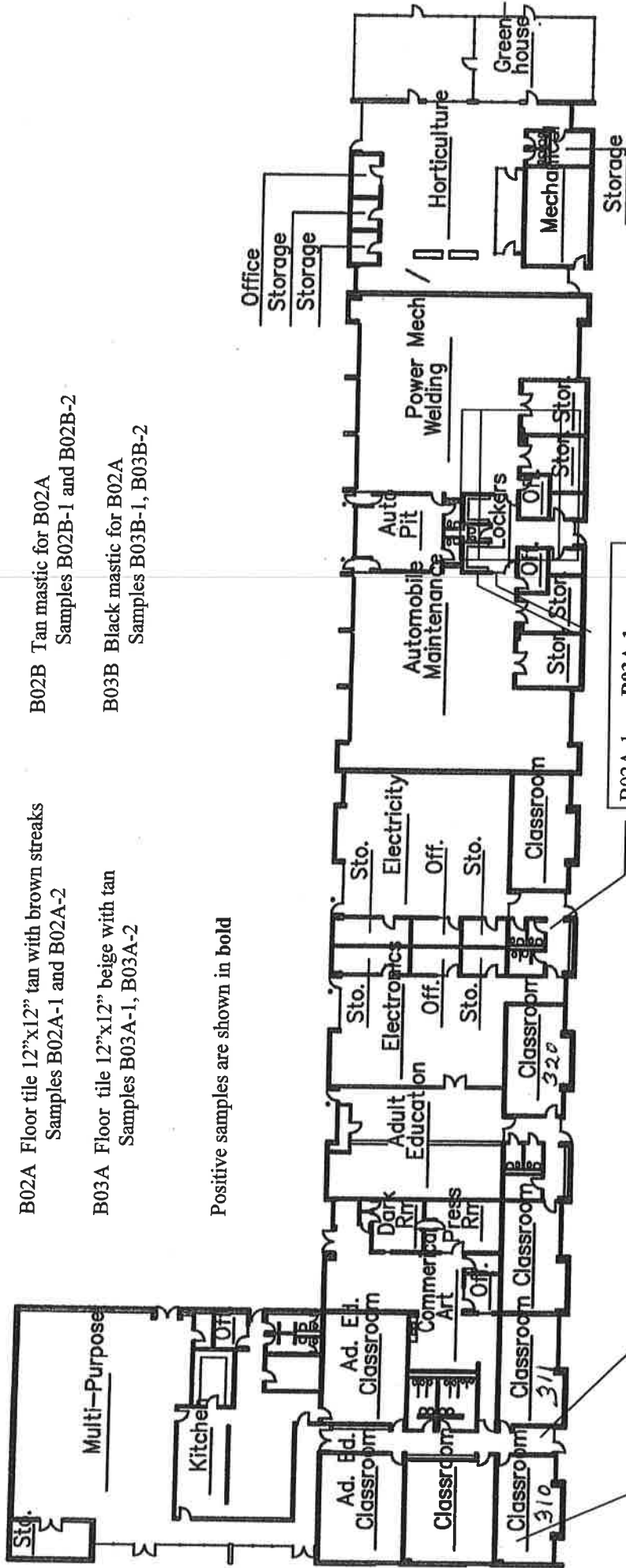
A01B Breaching TSI on HW heater pipe fittings
 Samples A01B-1, A01B-2, A01B-3

A06 Fitting TSI
 Samples A06-1, A06-2, A06-3

*Positive samples are shown in bold



AHERA Three Year Inspection Building B
 Arnold R. Burton Vo-Tech Sample Locations
 Roanoke County Schools L001
 Sample Date: January 30, 2008



B02A Floor tile 12"x12" tan with brown streaks
 Samples B02A-1 and B02A-2

B03A Floor tile 12"x12" beige with tan
 Samples B03A-1, B03A-2

Positive samples are shown in bold

B02B Tan mastic for B02A
 Samples B02B-1 and B02B-2

B03B Black mastic for B02A
 Samples B03B-1, B03B-2

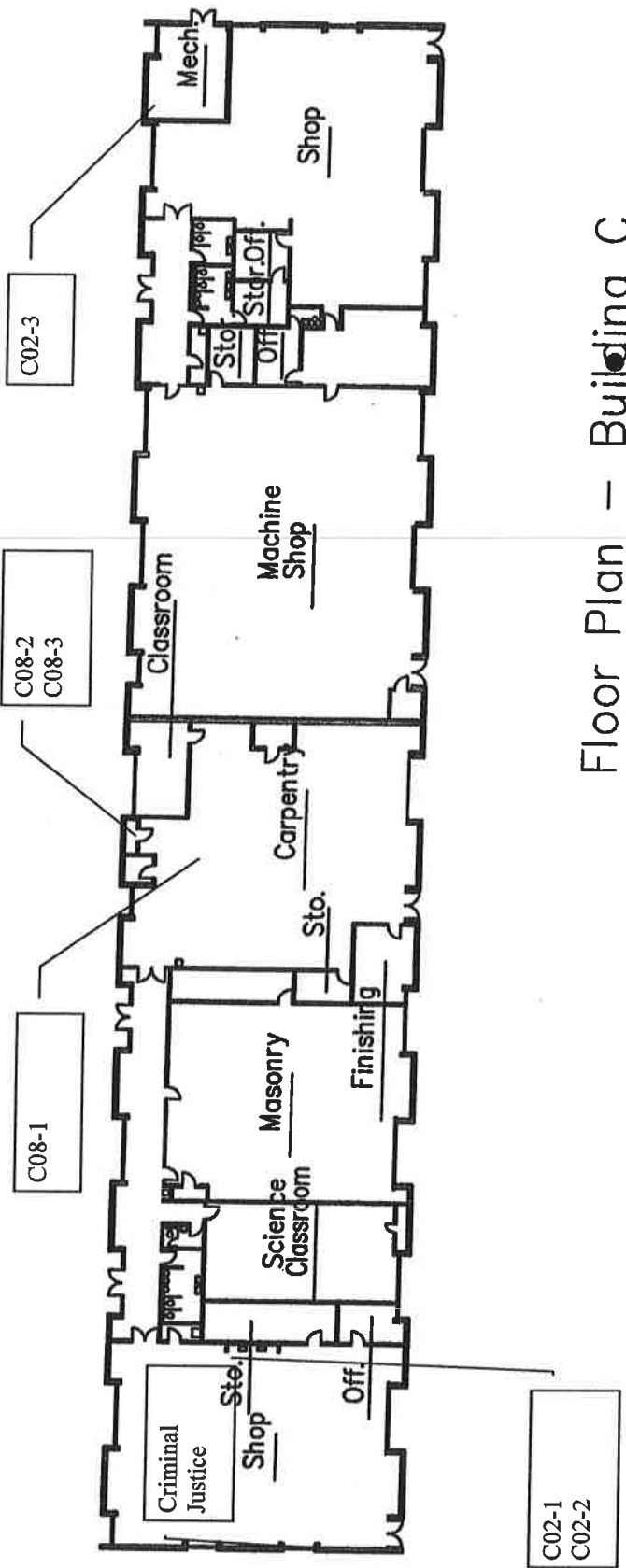
B02A-1
B02B-1
B03A-1
B03B-1

B02A-2
B02B-2

B03A-2
B03B-2

Floor Plan - Building B

AHERA Three Year Inspection Building C
 Arnold R. Burton Vo-Tech Sample Locations
 Roanoke County Schools L001
 Sample Date January 30, 2008



Floor Plan – Building C

C02 Domestic hot water fitting TSI
 Samples C02-1, C02-2, C02-3

C08 Other fitting TSI
 Samples C08-1, C08-2, C08-3

***Positive samples shown in bold**

Virginia Department of Education
Energy and Facilities Services

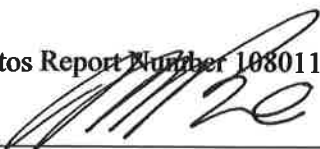
LEA Roanoke County Schools
School: 001 Arnold R Burton Vo-Tech
Building: Building A, B & C
Sample Date: January 30, 2008
Analysis Date: January 31, 2008
Analysis Method: PLM EPA 6000/M4-82-020

BULK SAMPLE ANALYSIS

Homogeneous Area	Sample Number	Material	Asbestos Content
A01A	A01A-1	HW heater flue pipe run TSI	50 % chrysotile 15 % amosite
	A01A-2		70 % amosite
	A01A-3		70 % amosite
A01B	A01B-1	HW heater flue fitting TSI	70 % amosite
	A01B-2		70 % amosite
	A01B-3		60 % chrysotile 4 % amosite
A06	A06-1	Other fitting TSI in Building A mechanical Room	None detected
	A06-2		None detected
	A06-3		None detected
B02A	B02A-1	Floor tile 12"x12" tan with brown streaks	None detected
	B02A-2		None detected
B02B	B02B-1	Tan mastic for B02A	None detected
	B02B-2		None detected
B03A	B03A-1	Floor tile 12"x12" beige with tan	2 % chrysotile
	B03A-2		None detected
B03B	B03B-1	Black mastic for B03A	3 % chrysotile
	B03B-2		3 % chrysotile
C02	C02-1	Domestic HW fitting TSI on fiberglass insulate pipe runs	None detected
	C02-2		None detected
	C02-3		None detected
C08	C08-1	Other fitting TSI in Building C	None detected
	C08-2		None detected
	C08-3		None detected

NAD – no asbestos detected

See attached AmeriSci PLM Bulk Asbestos Report Number 108011734

Name: Michael Baratta Signature  Date 2-8-09
Accreditation Number: 3303 000065 Agency: Virginia DPOR



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

PLM Bulk Asbestos Report

Baratta & Associates, Inc.
Attn: Michael Baratta
1150 Shady Run Road

Vinton, VA 24179

Date Received 01/31/08 AmeriSci Job # 108011734
Date Examined 01/31/08 P.O. #
Page 1 of 5
RE: L001; Arnold R Burton; 001

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
A01A-1 Location: Flue TSI	108011734-01	Yes	65 % (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Off White, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Chrysotile 50.0 %, Amosite 15.0 % Other Material: Non-fibrous 35 %			
A01A-2 Location: Flue TSI	108011734-02	Yes	70 % (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Off White, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Amosite 70.0 % Other Material: Non-fibrous 30 %			
A01A-3 Location: Flue TSI	108011734-03	Yes	70 % (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Off White, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Amosite 70.0 % Other Material: Non-fibrous 30 %			
A01B-1 Location: Flue Fitting Mud	108011734-04	Yes	70 % (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Off White, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Amosite 70.0 % Other Material: Non-fibrous 30 %			
A01B-2 Location: Flue Fitting Mud	108011734-05	Yes	70 % (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Off White, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Amosite 70.0 % Other Material: Non-fibrous 30 %			

See Reporting notes on last page

Client Name: Baratta & Associates, Inc.

PLM Bulk Asbestos Report

L001; Arnold R Burton; 001

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
A01B-3 Location: Flue Fitting Mud	108011734-06	Yes	64 % (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Off White, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Chrysotile 60.0 %, Amosite 4.0 % Other Material: Non-fibrous 36 %			
A06-1 Location: Fitting Mud	108011734-07	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Off White - Lt Gray, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Fibrous glass 15 %, Non-fibrous 85 %			
A06-2 Location: Fitting Mud	108011734-08	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Off White - Lt Gray, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Fibrous glass 15 %, Non-fibrous 85 %			
A06-3 Location: Fitting Mud	108011734-09	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Off White - Lt Gray, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Fibrous glass 12 %, Non-fibrous 88 %			
B02A-1 Location: Floor Tile	108011734-10	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: White, Homogeneous, Non-Fibrous, Floor Tile Asbestos Types: Other Material: Non-fibrous 100 %			
B02A-2 Location: Floor Tile	108011734-11	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: White, Homogeneous, Non-Fibrous, Floor Tile Asbestos Types: Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

L001; Arnold R Burton; 001

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
B02B-1 Location: Floor Tile Mastic	108011734-12	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Lt. Tan, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Cellulose 1 %, Synthetic fibers 3 %, Non-fibrous 96 %			
B02B-2 Location: Floor Tile Mastic	108011734-13	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Lt. Tan, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Cellulose 1 %, Synthetic fibers 4 %, Non-fibrous 95 %			
B03A-1 Location: Floor Tile	108011734-14	Yes	2 % (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile Asbestos Types: Chrysotile 2.0 % Other Material: Non-fibrous 98 %			
B03A-2 Location: Floor Tile	108011734-15	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Beige, Homogeneous, Non-Fibrous, Floor Tile Asbestos Types: Other Material: Cellulose 4 %, Non-fibrous 96 %			
B03B-1 Location: Floor Tile Mastic	108011734-16	Yes	3 % (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Black, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 3.0 % Other Material: Cellulose 3 %, Non-fibrous 94 %			
B03B-2 Location: Floor Tile Mastic	108011734-17	Yes	3 % (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Black, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 3.0 % Other Material: Cellulose 3 %, Non-fibrous 94 %			

Client Name: Baratta & Associates, Inc.

PLM Bulk Asbestos Report

L001; Arnold R Burton; 001

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
C02-1 Location: Domestic HW Fitting Muds	108011734-18	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 18 %, Non-fibrous 82 %			
C02-2 Location: Domestic HW Fitting Muds	108011734-19	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 18 %, Non-fibrous 82 %			
C02-3 Location: Domestic HW Fitting Muds	108011734-20	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Beige, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 18 %, Non-fibrous 82 %			
C08-1 Location: Fitting Mud	108011734-21	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Lt Beige, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 20 %, Non-fibrous 80 %			
C08-2 Location: Fitting Mud	108011734-22	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Lt.Beige, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 20 %, Non-fibrous 80 %			
C08-3 Location: Fitting Mud	108011734-23	No	NAD (by CVES) by C. David Mintz on 01/31/08
Analyst Description: Lt. Beige, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 20 %, Non-fibrous 80 %			

See Reporting notes on last page

Client Name: Baratta & Associates, Inc.

PLM Bulk Asbestos Report

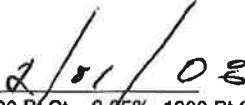
L001; Arnold R Burton; 001

Reporting Notes:

Analyzed by: C. David Mintz



Date



*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 by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 101904-0) and ELAP PLM Analysis Protocol 198.1 for New York friable samples (198.6 for NOB samples)(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.

Reviewed By: _____

Baratta & Associates, Inc.
P.O. Box 293
Vinton, Virginia

LEA Roanoke County Schools
School 001 Arnold R Burton Vo-Tech
Building Building A, B & C

REASSESSMENT OF MATERIALS

Past or Initial Assessment: Hall-Kimbrell April 1989

H-K appeared to have ignored positive samples from the water heater breeching in the Building A Mechanical Room. We assigned the breeching pipe run TSI homogeneous area A01A and the breeching fitting TSI homogeneous area A01B.

Homogeneous Area	Description	Past Assessment Category #	Reassessment Category #
Building A	(Academic Building)		
A01A	HW heater flue pipe run TSI	Not evaluated	1
A01B	HW heater flue fitting TSI	Not evaluated	1
Building B	(East Shop)		
B02A	Floor tile 12"x12" tan with brown streaks	5	Non-ACM
B02B	Tan mastic for B02A	Not evaluated	Non-ACM
B03A	Floor tile 12"x12" beige with tan	5	5
B03B	Black mastic for B03A	Not evaluated	5
Building C	(West Shop)		
C02	Domestic HW fitting TSI on fiberglass insulate pipe runs	1	Removed / Non-ACM*
C06	Floor tile	5	Removed
C07	Floor tile	5	Removed

*C02 - Domestic HW fitting TSI on fiberglass insulate pipe runs in West Shop - H-K reported damaged fitting TSI in the Criminal Justice Janitor Closet. The TSI on the lower ELLs, servicing the sink, had been removed. We sampled the upper ELLs as well as one fitting in Room 458A. Our samples tested to be non-ACM. We therefore, deemed the remaining fittings on the domestic hot water system non-ACM.

AHERA - Physical Assessment Categories - 763.88(a)(2)(b)

- 1 Damaged or significantly damaged TSI-ACBM
- 2 Damaged friable surfacing ACBM
- 3 Significantly damaged friable surfacing ACBM
- 4 Damaged or significantly damaged friable miscellaneous ACBM
- 5 ACBM with potential for damage
- 6 ACBM with potential for significant damage
- 7 Any remaining friable ACBM or friable suspect ACBM

Inspector:

Name: Michael Baratta Signature  Date 2-8-09

Accreditation Number: 3303 000065 Agency: Virginia DPOR

Virginia Department of Education
Energy and Facilities Service

LEA Roanoke County Schools
School Arnold R Burton Vo-Tech
Building: Buildings A, B & C

**RESPONSE ACTIONS
RECOMMENDED**

Total cost to remove \$18,500

Each Location	Recommended Response Actions	Scheduled To Begin	Scheduled To Be Completed	Est. Cost To Remove
Building A - Breeching from hot water heater in Mechanical Room (A01A & A01B)	Repair damaged TSI and place in O & M Plan until removed	none	none	\$2,500
Building B - Floor tile 12"x12" beige with tan and associated black mastic (B03A & B03B)	Place in O & M Plan until removed	none	none	\$16,000

Note Floor Tile System B03A & B03B are confined mostly to the rooms and some halls. These ACMs also exist in some of the small rooms in the south section of Building B.

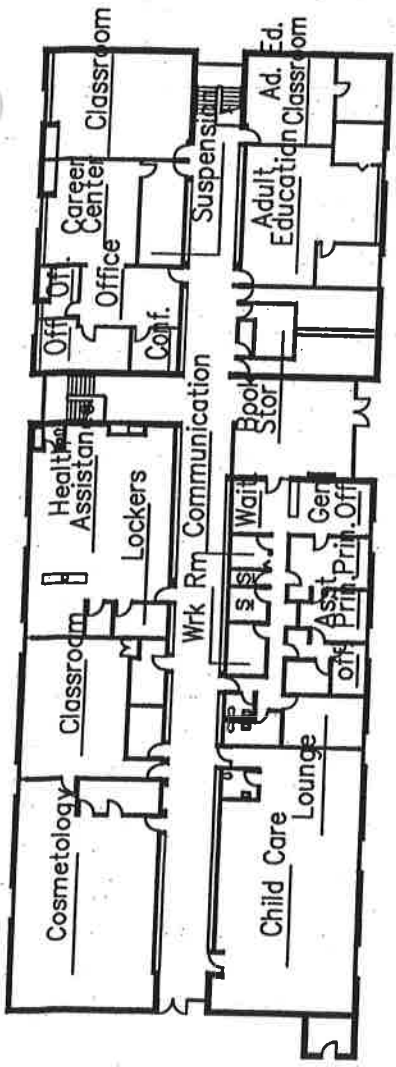
Management Planner:
Name: Michael Baratta Signature  Date 2-8-04
Accreditation Number: 3304 000208 Agency: Virginia DPOR

LOCATION OF ACBMs Arnold R Burton Vo-Tech
 Building A

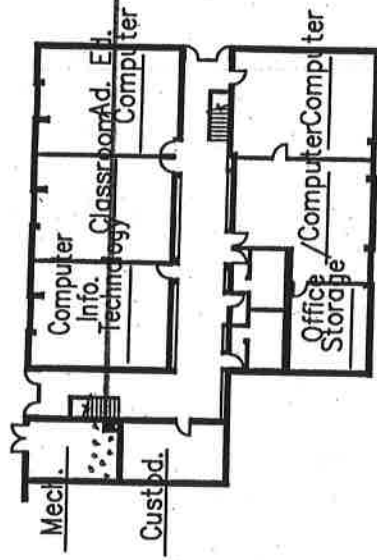
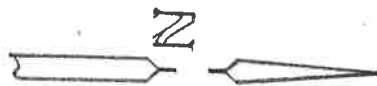
Scale: see drawing

Reinspection Date Jan. 29 & 30, 2008

Arnold R.
 Burton
 Technology
 Center
 1760 Boulevard

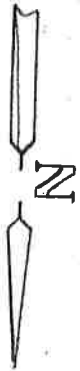


• Upper Floor Plan – Building "A"



• Ground Floor Plan – Building "A"



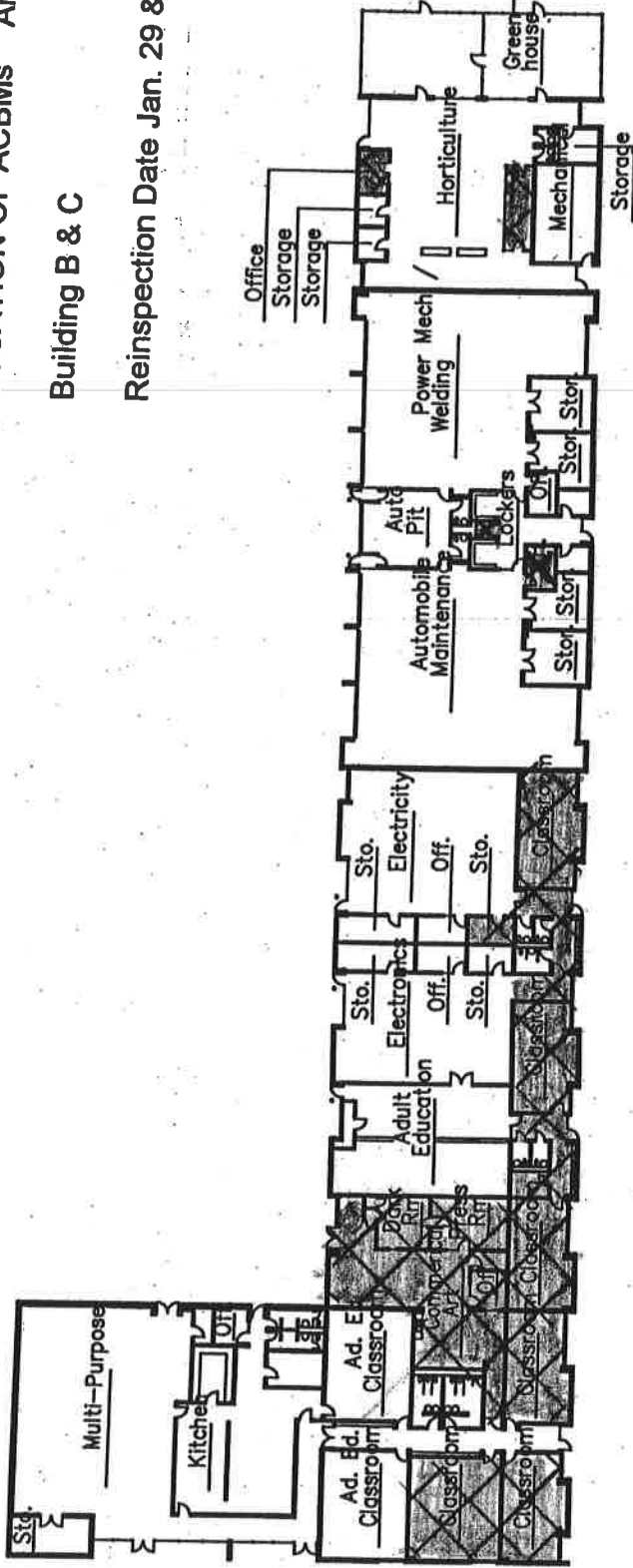


LOCATION OF ACBMs Arnold R Burton Vo-Tech
 Building B & C

Scale: see drawing

Reinspection Date Jan. 29 & 30, 2008

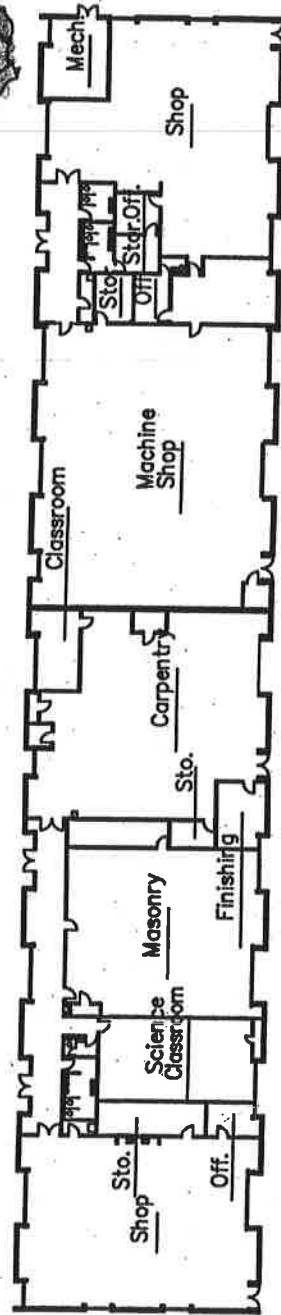
Arnold R.
 Burton
 Technology
 Center
 1760 Boulevard



• Floor Plan – Building B



ACM floor tile 12"x12" beige with tan and associated black mastic



• Floor Plan – Building C

ASBESTOS MANAGEMENT, OPERATIONS AND MAINTENANCE PLAN

Arnold R Burton Vo-Tech
February 4, 2008

This Asbestos Management Operations and Maintenance Plan is based on the three year AHERA Reinspection performed by Baratta & Associates, Inc on January 29 and 30, 2008. It covers procedures to be followed in dealing with the Asbestos-Containing Materials (ACMs) found in the Arnold R Burton Vo-Tech.

SUMMARY

The thermal system insulation (TSI) on the breeching for the gas fired hot water heater in the Building A Mechanical Room is an ACM. Some damaged areas were noted. We recommend the damaged areas be repaired.

The 12"x12" beige with tan floor tiles (and associated black mastic) used in some of the rooms in Building B (East Shop) also tested to be Asbestos Containing Materials. These floor coverings are in good condition. They do not currently present an asbestos related health risk to building occupants in their current condition.

No ACMs were found to exist in Building C (West Shop)

STAFF NOTIFICATION

The School should send all staff members a brief notice stating that Asbestos-Containing Materials exist in Buildings A & B.

ACM IDENTIFICATION

The following products were found to be Asbestos-Containing Materials (ACMs):

HA Number	Material
Academic Building	(mechanical room)
A01A	Hot water flue pipe TSI
A01B	Hot water flue pipe fitting TSI
East Shop	(some classrooms)
B03A	Floor tile, 12"x12" beige with tan
B03B	Black mastic for B03A

CARE OF THE WATER HEATER BREECHING

Repair the damaged areas. Once the damaged areas are repaired, an asbestos warning sticker should be applied to the flue pipe.

The flue pipe is near the ceiling in the rear (north side) of the mechanical room. It is relatively inaccessible. Therefore, the likelihood of future damage is minimized. If the maintenance staff notices this insulation has experienced additional damage, the TSI should be removed.

Any patching, repair work or removal should be carried out by a licensed asbestos abatement contractor.

CARE OF THE FLOOR TILES

No drilling, sanding, or other abrasive or penetrating activities shall be used on the asbestos containing floor tiles. To do so may release asbestos fibers into the environment.

The flooring is tough and non-friable. It is doubtful anything other than forceful vandalism will deteriorate this material to a point where significant fiber release will occur.

PERMIT REQUIREMENTS

Before any work that may require the disturbance of the noted Asbestos Containing Materials is performed, maintenance personnel or contractors shall obtain an Asbestos Work Area Permit from the School System's Asbestos Program Manager.