BURRIS/WAGNON ARCHITECTS, P.A.
500L EAST WOODROW WILSON AVENUE JACKSON MS 39216 PH 6019697543 FAX 6019699374

20 March 2020

ADDENDUM NO. 2

Re: **GS# 102-267**
Campus Roofing (Package B)
Delta State University
Cleveland, Mississippi

Bid Date: Thursday, March 26, 2020 (2:00 P.M.)

NOTICE TO ALL DOCUMENT HOLDERS:

The following additions, changes, and clarifications to the Specifications for the subject project are to be included as part of the Contract Documents, and thus amend the Scope of Work:

GENERAL

Item No. 1: A PRE-BID CONFERENCE was held on THURSDAY, MARCH 12, 2019, 10:00 A.M., in the Delta State University Physical Facilities Office conference room. See attached two (2) attendance lists, and items discussed and clarified below.

A. Ms. Anna Boggan and Mr. Randy Turner of the Bureau of Building presented a Pre-Bid Meeting agenda (attached as Exhibit "A"), discussed bid date and time, location, parking around Woolfolk Building, and noted that bid acceptance would be based on the Bureau's official time clock at the desk in the lobby of the 14th floor of Woolfolk Building. If sending Bid by FedEx, bid must be received by the advertised Bid Time of 2:00 PM. Ms. Boggan read parts of Section 00100 Instructions to Bidders, and noted that Contractors shall thoroughly review the entire Section 00100, including Bidder's Checklist and all other bidding requirements at Section 00100 Instructions to Bidders, (including, but not limited to the following):

1. The Bureau of Building is the Owner for this Project. The Contract will be between the Bureau and the Contractor.
2. Any modifications to Bid must be made prior to the scheduled Bid time by writing on the outside of the sealed envelope containing the Bid (see Section 00100/3.02).
3. Bid Bonds must also have Power of Attorney attached. Bond is not required if a certified check is used instead. Bid Security is 5%. See Section 00100/2.08.
4. Written words supersede numbers written on Proposal Form.
5. Bidder must acknowledge all addenda on the Proposal Form. Bidder must sign proposal form
6. Out-of-State Contractors shall include their state's reciprocating law in bid envelope, OR a letter stating the Contractor's state has no resident Contractor preference law (**see Section 00100/1.03**).
7. Bidders have 24 hours to review bids and report any problems or irregularities, and also to protest bids (see Section 00100/4.03, 4.04).
8. There are no Davis-Bacon requirements on this Project.
9. Ms. Boggan also noted that bids may be submitted electronically -- Memorandum regarding electronic bidding is attached hereto as Exhibit "B". (Bidder must pre-register in Magic).

B. Ms. Boggan noted that all questions shall be sent directly to the Professional. It was noted that all Addenda shall be a part of the Contract, and there shall be no addenda issued within 48 hours of the Bid: last addendum must be released by 5:00 PM, CST, Monday, March 23, 2020: please send all questions for clarification to Professional before this date/time. Any Bid protests shall be sent directly to the Bureau of Building, Grounds, and Real Property Management within 24 hours of the Bid. Contractor please note on the last page of the Proposal Form, page 8, in the Mechanical/Electrical Contractors section, that the blanks MUST BE FILLED IN.

C. Architect discussed contract time and the Proposal Form, including the fact that all relevant subcontractor blanks must be filled in. Alternates were discussed, and it was noted that Unit Prices described at Drawings, Sht. TS, must be filled in on proposal form.

D. Architect pointed out the Base Bid Assumptions (Sht. TS) that *shall be included in the Base Bid.* (Example: at Assumption #1: 200 sq. ft. x Contractor's cost per square foot= amount to include in Bid for this Assumption #1).

E. Architect discussed the overall planning and specification concepts of the Project, with key issues to be explored further in the Documents by the Contractor, as follow:
   1. The Project is planned as a Base Bid, with two (2) add alternates.
   2. Architect noted that the two (2) dormitories, Lawler-Harkins and Cain-Tatum-Fugler-Hammett, must be complete, as described in the Documents, by August 1, 2020.

F. Architect reviewed Section 01900, including alternate descriptions, and construction timeline for the dormitories. Architect reiterated the discussion regarding reciprocating laws for out-of-state bidders.

G. Chad Moore, P.E. of ERG discussed mechanical scope of work.

H. Architect noted that the next addendum would include a supplemental asbestos report, and an abatement specification, related to the mechanical scope of work.

Item No. 2: **The Bureau of Building has issued (19 March 2020) the comments below regarding the bid process, attending the Bid opening, etc., for Bidder's use, amending some of the details of the bid as discussed in the Pre-Bid (and above):**

- **On Bid opening date, bids will be received and opened in the Conference Room 145 on the 1st floor of the Woolfolk State Office Building instead of the 14th Floor Conference Room. This will allow bidder to avoid us of public elevators. As this space is also significantly larger than our standard bid room, it will also allow bidder to maintain appropriate social distancing.**

- **Bidder will be able to attend the opening, or as an option, via conference call-in phone number. Phone number (888) 822-7517 Access code 4443353.**

- **Certified bid Tabulations will be posted on the Department of Finance and Administration's Bureau of Building, Grounds and Real Property Management Website as soon as available following the bid opening.**

- **Mailed bids and those delivered prior to bid date will be received at 501 North West Street, Suite 1401B (Woolfolk Building) Jackson, MS 39201 as usual.**

In accordance with MISSISSIPPI Code, bids may also be submitted electronically via the State of Mississippi Procurement Portal as previously identified in "advertisement for bids".

SPECIFICATIONS

Item No. 1: **Refer to the Index** and add the following:

A. At Division 2, add Section 02000 - Asbestos Abatement.....1-18

B. At end of Index, add "Appendix B" as follows: "Appendix B: Owner-Furnished Asbestos Survey and Assessment - Lawler-Harkins Halls Mechanical Upgrades.....1-21".

Item No. 2: **Refer to Project Manual, and after Appendix A, add Appendix B, the supplemental ACM report related to mechanical work, attached Exhibit "C".**

Item No. 3: **Refer to Division 2 of Specifications and add Section 02000 – Asbestos Abatement, pp1-18, attached Exhibit "D".**

Item No. 4: **Refer to Section 01900/3.01,** and add the following alternate descriptions:

A. Alternate #1: Add to the Base Bid all labor, materials, overhead, profit, and supervision to re-roof Scott Hall (Sheet 4 of Drawings) in its entirety, including coal tar roof system and shingle roof system, and other elements shown on Drawings.

B. Alternate #2: Add to the Base Bid all labor, materials, overhead, profit, and supervision to re-roof Odealier J. Morgan Laundry (Sheet 6 of Drawings) in its entirety, including modified bituminous roofing system and other elements shown on Drawings.

C. Alternates 3-5 are "Not Used".

Item No. 5: **Refer to the Section 07500** and make the following changes**:**

A. Add paragraph 2.08, clarify that sheetmetal flanges associated with coal tar system shall be primed with Garland "Blackknight Primer".

B. At paragraph 2.25, change "Tuff-Flash" to "Tuff-Flash LO".

Item No. 6: **Refer to the Section 07535** and make the following changes**:**

A. Add paragraph 2.23 as follows: "At all flashing laps, coat laps with Garland "Silverflash".

B. At paragraph 2.10, change "Tuff-Flash" to "Tuff-Flash LO".

DRAWINGS

Item No. 1: **Refer to Sheet TS/Index of Drawings/Architectural Sheet 5** and modify as follows: "Details, Chilled Water Piping Chases Lawler-Harkins First, Second, and Third Floors".

Item No. 2: **Refer to Sheet TS, General Roof Notes, at add note "16."** and modify as follows: "At conclusion of roofing, Contractor shall replace all existing waterstained ceiling tiles throughout building, matching texture and thickness of existing tiles."

Item No. 3: **Refer to Sheet 5** and clarify as follows: at Drawing 15, modify drawing title to "Chilled Water Piping Chases, Lawler-Harkins First and Second Floors". At Drawing 16, modify drawing title to "Chilled Water Piping Chases, Lawler-Harkins Third Floor".

No other items in this addendum.

Sincerely,
Stan Wagnon, AIA
BURRIS/WAGNON ARCHITECTS, P.A.

End of Addendum No. 2

BUREAU OF BUILDING, GROUNDS AND REAL PROPERTY MANAGEMENT

Date: 3/12/2020 **Using Agency:** Delta State University

GS# 102-267 **Project Professional:** Burris/Wagnon Architects, P.A.

Project Name: Campus Roofing (Package B)

Pre-Bid Sign - in - Sheet

NAME:	COMPANY:	PHONE:	FAX:	CELL:	EMAIL:
Stan Wagnon	burris/wagnon	601 969 7543	969 9374		Stan@burriswagnon.com
Earl Collett	Upchurch Plumbing	662-299-1318			Earl@upchurchplumbing.com
Terry Green	Upchurch Plbg	662-418-6911			terry@upchurchplumbing.com
Jason Conley	Jessie Bryant Rfg	901-398-9799	901-393-9820	901-301-9791	jason@jbrmemphis.com
Matt Campbell	GARLAND	901-272-9540			MCAMPBELL@GARLANDIND.com
Lee Walker	Garland	901-438-2784			lwalker@garlandind.com
DAVID FURR	ROOFING SOLUTIONS	225-744-3912		225-454-4999	dfurr@roofingsolutionsla.com
Tony Pace	Metro Mechanical	601-866-9950		601-421-5349	tony@metromechanical.net
Justin Braswell	Robinson Electric	662-719-3704			jb@robinsonelectric.biz
WALLACE DEARING	NORMAN ROOFING	601-934-5800			wallace@normanroofing.com
Steven Place	Robinson Electric	6662-719-3919			Steven@robinsonelectric.biz
JASON KOENENN	Rowell Roofing Inc.	601-734-9494			JKoenenn@rowellroofing.com
CHRIS CRISWELL	E. CORNELL MALONE CORP	601-352-5940			SHANE@ECMALONE.com
Raymond Acy	Acy Mechanical LLC	662-253-4324		662 633-1579	Raymond@acymechanical.com
Josh Boaz	B Fenn Plied, Inc.	901-366-1544	901-757-8428	901-412-9291	josh@bfennplied.com
Levi Eskola	Eskola Roofing	423-318-2196	423-318-2198	423-307-6773	LEskola@Eskolaroofing.com
BRIAN DEZK	SWIFT ROOFING	270-737-2224	[redacted]	502-797-0174	BDEZKE@SWIFTROOFING.NET
Larry Swift	Swift Roofing	270-753-5876	270-753-9452	270-293-9963	LdSwift@Swiftroofing.net
Chris Horton	Jonesboro Roofing	870-219-4206	870-935-7671	870-219-4206	Chorton@Jonesbororoofing.com

SIGN IN SHEET AND AGENDA

Bureau of Building, Grounds and Real Property Management

DATE: 3/12/2020

MEETING FOR: **GS#** 102-267 (PP002) **PHASE:** **I/A and Project Name:** CAMPUS ROOFING (PACKAGE B) DSU

Requested by: _____ **BoB** _____ **Professional** _____ **Using Agency** _____

Purpose of Meeting PRE-BID CONFERENCE

NAME *(PLEASE PRINT)*	COMPANY OR ORGANIZATION	WORK NO.	CELL NO.	EMAIL ADDRESS
ANNA BOGGAN	BoB	601-359-1236		anna.boggan@dfa.ms.gov
RANDY TURNER	BOB	601 941 6068		RANDY.TURNER@DFA.MS.GOV
JIMMY ELDGM.DGS	[redacted] ERG	601-362-3552		JIMMY.BLAN.DGS@ATT.NET
CHAD MOORE	ERG	601-362-3552		cmoore@ergms.com

PRE-BID CONFERENCE

GS# 102-267

Campus Roofing (Package B) – Delta State University

DATE: Thursday, March 12, 2020 **TIME: 10:00 AM**

1. **Open Bid:** Thursday, March 26, 2020, 2:00 PM
   Bureau of Building's Conference Room - 14th Floor

2. Parking & Security - allow ample time for parking and check-in with building security. Be mindful on whether the legislature ***is/is not*** in session (1/2 through 3/30)

3. Telephone and desk, are not provided, for bidders use. Please do not go beyond the yellow signs in certain areas on the floor.

4. Bids are taken; until 1:59:59 PM on Bid Date. The official time clock is located at the Receptionist Desk – 14th Floor. All late bids will be stamped and returned unopen.

5. The Mississippi State Board of Contractors is responsible for issuing Certificates of Responsibility to Contractors. Please ensure that your company information is current and up to date, at the time of bid and throughout the length of the job. Bids over $50,000, must show a Certificate of Responsibility number on the bid and on the face of the envelope containing the bid information

6. Business Name must be exact, as listed, with the MS Secretary of State's Office and the state board of contractors must match.

7. The written bid amounts supersede the numeric amounts and the same for alternates

8. 5% Bid Bond or Certified Check for 5% of the bid amount is required at time of bid. Certified Checks are held; until bid award, as well as if you are not the low bidder and you must request the check in writing with the return address in the request.

9. Make sure to acknowledge all addendum(s) on bid document

10. If applicable, provide Mechanical/Plumbing/Electrical Subcontractors Name along with Certificate of Responsibility Number. If a subcontractor(s) will not be used for the Project, then, N/A should be noted and submitted on the bid document

11. Bidder has 24 hours to notify BoB regarding any mistake with their Bid Submittal

12. All Bid Protest(s), must be submitted to the Bureau of Buildings (BoB)

13. Must hold price for 45 days; as per bid specifications

14. Notice to proceed will occur in approximately 30 days after bid if contracts are correct

15. Out of State Contractors must submit reciprocating construction law for their state of resident. The State Of Mississippi does not have a reciprocating law; but if your state has one, we will use it to evaluate your bid.

16. Bureau of Buildings is the Owner - your Contract will be between BoB and the Contractor

17. Questions regarding the Project ***must*** be submitted; to the Professional, no later than 72 hours prior to bid date

18. If bid; is sent by UPS/ FEDX or USPS, it is the Bidders responsibility to make sure it is delivered and stamped in before 1:59:59 PM on bid date. The bid must in a sealed envelope inside a shipping package so that it is not open with the regular mail. Late bids are stamped in and returned not opened

19. Electronic bid(s); are accepted for all Bureau of Building, Grounds, and Real Property Management (BOB) Projects. To submit an electronic bid; you must registered in MAGIC. To ensure you can submit a bid electronically you must register prior to bid date; registration is required only one time. If you register, you will start receiving auto notifications for BOB construction projects. This does not apply to reverse auction. If anyone wants instructions for how to register, I have a memorandum dated 02/27/18, from the BoB director with instructions on how to do so

20. If you have any questions after today regarding information for bidding, please reference the bidder's checklist in the specifications

Exhibit "B"

STATE OF MISSISSIPPI
GOVERNOR PHIL BRYANT

DEPARTMENT OF FINANCE AND ADMINISTRATION

Laura D. Jackson
EXECUTIVE DIRECTOR

MEMORANDUM

TO: Contractors, through the AGC, ABC, and MBOC

FROM: Calvin R. Sibley, Director
Bureau of Building, Grounds and Real Property Management

DATE: February 27, 2018

SUBJECT: Electronic Construction Bidding per Law effective 1/1/2018

Beginning January of 2018, the Mississippi Department of Finance and Administration / Bureau of Building Grounds and Real Property Management started receiving construction bids electronically as required by House Bill 1106, Laws of 2017. Electronic bids are at the discretion of the Bidder/Supplier. Paper bids WILL STILL BE received as stipulated in the Advertisement / Request for Bids The instrument being used to carry out this is a program called MAGIC which is available to all State of Mississippi departments, agencies, and Bidders/Suppliers. (MAGIC is the State's Accounting System.)

TO BID USING MAGIC: Potential Bidder/Supplier must first register. When the Bidder/Supplier registers themselves, they will automatically receive their Magic sign-in information. (The Bureau of Building, et al, can assist with this, and, if so, will notify the Bidder/Supplier by email of doing so, so they can contact Magic to get their sign-in information for bidding electronically) Construction Bidders/Suppliers who have received awards in recent years through the Bureau of Building, et al, should already have their company information properly entered. Those companies should still verify that their system "Product Code" is set to "90922" [for construction] in order to receive "system generated Bid Notices" for construction projects. (Bid Opportunities will continue to be in the newspaper, on the Magic Portal, and on the Bureau of Building, et al, web.) When registering, a company should enter their company information EXACTLY as shown per the Mississippi Secretary of State's listing and per their W9. Contact Magic at:
http://uperform.magic.ms.gov/gm/folder-1.11.7512?originalContext=1.11.8507 (MS SoS, MBOC, and W9 should all agree.)

TO ADD THE PRODUCT CODE 90922 once in your MAGIC Address Table click the steps below:
1. Click on Suppliers Self Service Tab.
2. Click Company Data.
3. Click the Process Button.
4. Click Add Categories in the Product Categories section
5. Add the product Categories from here.

TO VIEW ADVERTISED PROJECT INFORMATION on line go to DFA Web site and select "Are You Interested in Doing Business with Mississippi" at the top of the page. This takes one to the Procurement Portal. Click on:
1. I sell to Mississippi
2. (RFx) Procurement Opportunities and Public Notifications
3. Advanced Search Options
4. Major Procurement Category: Select Construction
5. Dept/Agency: Select MS DEPT FINANCE AND ADMINISTRATION
6. SEARCH

Another option from the DFA web site is to:
1. Select DFA Offices
2. Select Bureau of Building Grounds and Real Property Management.
3. Just Below "About the Bureau of Building" select BOB Bid Solicitations.
4. Locate the GS# at left of the list and the RFx number at the right.

On both list the RFx number for each project is listed which is required in MAGIC when preparing bids.

For additional information regarding registration in MAGIC, contact MMRS at (601) 359-1343 or by email at mash@dfa.ms.gov .

CRS/pgw

Appendix B:

Owner-Furnished Asbestos Survey and Assessment - Lawler-Harkins Mechanical Upgrades

ASBESTOS SURVEY AND ASSESSMENT

DELTA STATE UNIVERSITY
LAWLER-HARKINS HALLS MECHANICAL UPGRADES
CLEVELAND, MISSISSIPPI

PREPARED FOR:

BURRIS WAGNON ARCHITECTS
500 L EAST WOODROW WILSON AVE.
JACKSON, MISSISSIPPI 39216

PREPARED BY:

PICKERING FIRM, INC.
2001 AIRPORT ROAD, SUITE 201
FLOWOOD, MISSISSIPPI 39232

March 9, 2020
PICKERING PROJECT NO.: 23216.55

Pickering

Service and Good Work…
Our Foundation, Our Future
Since 1946

March 9, 2020

Mr. Stan Wagnon
Burris Wagnon Architects
500 L East Woodrow Wilson Avenue
Jackson, MS 39216

Re: Asbestos Roofs Survey and Assessment
Delta State University-Lawler-Harkins Halls Mechanical Upgrades
Cleveland, Mississippi

Dear Mr. Wagnon:
You requested our services with respect to the presence of Asbestos-Containing Materials (ACM) at the above-referenced property in connection with the planned renovation of the above referenced building.

Following our site inspection and sample collection activities, eight (8) ACMs were identified during this inspection. This conclusion is based on the Environmental Protection Agency's (EPA) definition of an ACM as material composed of "…greater than 1% asbestos." The ACMs identified are as follows:

- **Textured Ceilings located within the interior of the building (HA) LH-01**
- **9"x9" Floor Tile and Mastic located throughout the interior of the building (HA) LH-02**
- **Sheet Rock Joint Compound located within the interior of the building (HA) LH-05**
- **Straight Run Pipe Insulation located within the interior of the building (HA) LH-06**
- **Pipe Elbows and Joint Fittings located within the interior of the building (HA) LH-07**
- **White Duct Connector on HVAC Units located within the mechanical pent houses (HA) LH-08**
- **Black Gasket on HVAC Units located within the mechanical pent houses (HA) LH-09**
- **Black wrap on pipes located within the mechanical pent houses (HA) LH-10**

Please find attached a report of findings that includes ACM material quantities and an estimated removal cost. Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,
PICKERING FIRM, INC.

Willie J. Nester

Willie J. Nester, P. E.
MDEQ Certified Asbestos Inspector

Marcus D Hope

Marcus D. Hope
Environmental Scientist
MDEQ Certified Asbestos Inspector

Attachment:

INDEX

1.0 EXECUTIVE SUMMARY

This asbestos-containing material (ACM) survey was performed to identify and assess the condition of suspect ACMs in order to allow for the mechanical renovations to the existing Lawler-Harkins Halls located on the Delta State University Campus. This report describes the survey tasks and presents our findings and recommendations.

An initial inspection of the buildings and roofs was performed on March 2, 2020. Special precautions and security/access requirements were coordinated with the university's facility management personnel at the time of the site visit. Following this pre-survey inspection, all types of suspect ACM were inspected and the locations of samples were noted on a site plan of the building/roof. It should be noted at the time of the inspection the mechanical penthouse on the Harkins Hall portion of the building was not able to be accessed. Materials within this mechanical penthouse are assumed to be homogenous with materials within the Lawler Hall mechanical penthouse.

A random sampling scheme was designed for sampling all suspect homogeneous materials. A minimum of two (2) samples were collected for each homogeneous area. After samples were collected, they were packaged and delivered to an accredited laboratory for analysis by Polarized Light Microscopy (PLM). Eight (8) homogeneous materials sampled were determined to contain asbestos. This conclusion is based on the EPA definition of an ACM as a material composed of "… greater than 1% asbestos, by weight."

2.0 FINDINGS – ASBESTOS

During the initial asbestos survey, a total of twenty-three (23) bulk material samples were collected. All samples collected were analyzed for asbestos content. According to the analytical results, eight (8) asbestos containing materials were identified. This conclusion is based on the EPA definition of an ACM as a material composed of "… greater than 1% asbestos, by weight." The ACMs identified are as follows:

- **Textured Ceiling (HA) LH-01** located within the interior of the Lawler-Harkins Halls. Laboratory analysis revealed these materials contain approximately 2% chrysotile asbestos. This material is classified as Regulated Asbestos Containing Material, friable ACM according to National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations.

- **9”x9” Floor tile and mastic (HA) LH-02** located throughout the Lawler-Harkins Halls. Laboratory analysis revealed these materials contain approximately 3% and 8% chrysotile asbestos, respectively. This material is classified as Category I, non-friable ACM according to NESHAP regulations.

- **Sheet rock joint compound (HA) LH-05** located throughout the Lawler-Harkins Halls. Laboratory analysis revealed these materials contain approximately 3% chrysotile asbestos. This material is classified as Category II, non-friable ACM according to NESHAP regulations.

- **Straight Run Pipe Insulation (HA) LH-06** located in the stairwells and above the drop ceilings within the Lawler-Harkins Halls. Laboratory analysis revealed these materials contain approximately 25% chrysotile asbestos and 15% amosite asbestos, respectively. This material is classified as a Regulated Asbestos Containing Material, friable ACM according to regulations.

- **Pipe elbows and joint fittings (HA) LH-07** located in the stairwells and above the drop ceilings within the Lawler-Harkins Halls. Laboratory analysis revealed these materials contain approximately 2% chrysotile asbestos and 5% amosite asbestos, respectively. This material is classified as a Regulated Asbestos Containing Material, friable ACM according to NESHAP regulations.
- **White duct connector on HVAC Units (HA) LH-08** located within the mechanical penthouses of Lawler-Harkins Halls. Laboratory analysis revealed these materials contain approximately 4% chrysotile asbestos. This material is classified as Category II, non-friable ACM according to NESHAP regulations.
- **Black Gasket on HVAC Units (HA) LH-09** located within the mechanical penthouses of Lawler-Harkins Halls. Laboratory analysis revealed these materials contain approximately 6% chrysotile asbestos. This material is classified as Category II, non-friable ACM according to NESHAP regulations.
- **Black Pipe Wrap (HA) LH-10** located on pipes within the mechanical penthouses of Lawler-Harkins Halls. Laboratory analysis revealed these materials contain approximately 6% chrysotile asbestos. This material is classified as Category II, non-friable ACM according to NESHAP regulations.

NON-ASBESTOS MATERIAL SAMPLED

The following material contained zero or less than 1% asbestos:

Material (Homogeneous Area No.)

- 2'x2' Ceiling Tiles (LH-03)
- Brown cove base (LH-04)
- Black duct connector on HVAC Unit (LH-11)

3.0 RECOMMENDATIONS

Considering these findings, the NESHAP Regulations 40 CFR 61, Subpart M, requires the removal of ACM before any renovation or demolition takes place that will disturb those materials and render them friable. Therefore, any future expansion, demolition, or renovation activities at the facility that would impact any of these ACMs should follow the NESHAP regulations. Also, it is recommended that the removal work be designed by a certified asbestos project designer. A renovation project of this type will also require a written notification to be submitted to the Mississippi Department of Environmental Quality (MDEQ) 10 days prior to the beginning of the project.

4.0 COST ESTIMATE

The cost estimate table below represents a cost breakdown for the removal of each ACM material identified during the inspection. In developing this cost estimate, we have assumed this material will be included in a single abatement project. The cost estimate does not include abatement design costs or contractor oversight costs.

Cost Breakdown for Removal of ACM (assume all interior ACM removed)

			Removal	
Location	**Material**	**Quantity***	**Unit Cost**	**Total Cost**
Lawler-Harkins Halls	Textured Ceiling	800 Sq. Ft.	$15.00/Sq. Ft.	$12,000.00
Lawler-Harkins Halls	9”x9” Floor Tile and Mastic	1,500 Sq. Ft.	$3.00/Sq. Ft.	$4,500.00
Lawler-Harkins Halls	Sheet Rock Joint Compound	800 Sq. Ft.	$5.00/Sq. Ft.	$4,000.00
Lawler-Harkins Halls	Straight Run Pipe Insulation	200 LF.	$25.00/LF	$5,000.00
Lawler-Harkins Halls	Pipe Elbows and Fittings	15	$20.00 per elbow/fitting	$300.00
Mechanical Penthouse	Air Handlers in Penthouse (Including black pipe wrap)	2 units	$2000.00 per unit	$4,000.00
	Abatement Total			$29,800.00

* Note: These estimates are not to be used for bidding purposes. Contractors must get their own measurements. In addition, this project may not require all ACMs listed to be removed. The contractor should refer to design specification for a more accurate description of ACMs to be removed.

APPENDICES

APPENDIX A
LABORATORY ANALYSIS REPORTS

ASBESTOS RESULTS

EMSL Analytical, Inc.

18369 Petroleum Drive Baton Rouge, LA 70809

Tel/Fax: (225) 755-1920 / (225) 755-1989

http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252001360
Customer ID:	POWE54
Customer PO:	16906
Project ID:	

Attention:	Marcus Hope	**Phone:**	(601) 956-3663
	Pickering, Inc.	**Fax:**	(601) 956-7817
	2001 Airport Road	**Received Date:**	03/04/2020 3:45 PM
	Suite 201	**Analysis Date:**	03/05/2020 - 03/06/2020
	Flowood, MS 39232	**Collected Date:**	03/02/2020
Project:	23216.55 Task 001/DSU Lawler Harkin Inspection		

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
LH-01-01 *252001360-0001*		White Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
LH-01-02 *252001360-0002*		White Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
LH-01-03 *252001360-0003*		White Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
LH-02-01-Floor Tile *252001360-0004*		Beige Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
LH-02-01-Mastic *252001360-0004A*		Black Non-Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
LH-02-02-Floor Tile *252001360-0005*		Beige Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
LH-02-02-Mastic *252001360-0005A*		Black Non-Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
LH-03-01 *252001360-0006*		Gray/White Fibrous Homogeneous	40% Cellulose 15% Glass	45% Non-fibrous (Other)	None Detected
LH-03-02 *252001360-0007*		White/Beige Fibrous Homogeneous	40% Cellulose 15% Glass	45% Non-fibrous (Other)	None Detected
LH-04-01-Cove Base *252001360-0008*		Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
LH-04-01-Glue *252001360-0008A*		Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
LH-04-02-Cove Base *252001360-0009*		Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
LH-04-02-Glue *252001360-0009A*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
LH-05-01-Joint Compound *252001360-0010*		White Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
LH-05-01-Drywall *252001360-0010A*		White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 03/06/2020 16:23:45

EMSL Analytical, Inc.
18369 Petroleum Drive Baton Rouge, LA 70809
Tel/Fax: (225) 755-1920 / (225) 755-1989
http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252001360
Customer ID:	POWE54
Customer PO:	16906
Project ID:	

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
LH-05-02-Joint Compound *252001360-0011*		White Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
LH-05-02-Drywall *252001360-0011A*		White Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
LH-06-01 *252001360-0012*		White Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
LH-06-02 *252001360-0013*		Gray Fibrous Homogeneous		85% Non-fibrous (Other)	15% Amosite
LH-07-01-Wrap *252001360-0014*		Beige Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
LH-07-01-Insulation *252001360-0014A*		Gray Fibrous Homogeneous	10% Glass	85% Non-fibrous (Other)	5% Amosite
LH-07-02-Wrap *252001360-0015*		Beige Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
LH-07-02-Insulation *252001360-0015A*		Gray Non-Fibrous Homogeneous	10% Glass	85% Non-fibrous (Other)	3% Amosite 2% Chrysotile
LH-08-01 *252001360-0016*		Brown Fibrous Homogeneous	80% Glass	20% Non-fibrous (Other)	None Detected
LH-08-02 *252001360-0017*		Brown Fibrous Homogeneous	60% Glass	36% Non-fibrous (Other)	4% Chrysotile
LH-09-01 *252001360-0018*		Black Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
LH-09-02 *252001360-0019*		Black Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
LH-10-01 *252001360-0020*		Black Non-Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
LH-10-02-Pipe Wrap *252001360-0021*		Black Non-Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
LH-10-02-Gasket *252001360-0021A*		Black Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
LH-11-01 *252001360-0022*		Black Fibrous Homogeneous	90% Glass	10% Non-fibrous (Other)	None Detected
LH-11-02 *252001360-0023*		Black Fibrous Homogeneous	90% Glass	10% Non-fibrous (Other)	None Detected

Initial report from: 03/06/2020 16:23:45

EMSL Analytical, Inc.

18369 Petroleum Drive Baton Rouge, LA 70809

Tel/Fax: (225) 755-1920 / (225) 755-1989

http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252001360
Customer ID:	POWE54
Customer PO:	16906
Project ID:	

Analyst(s)

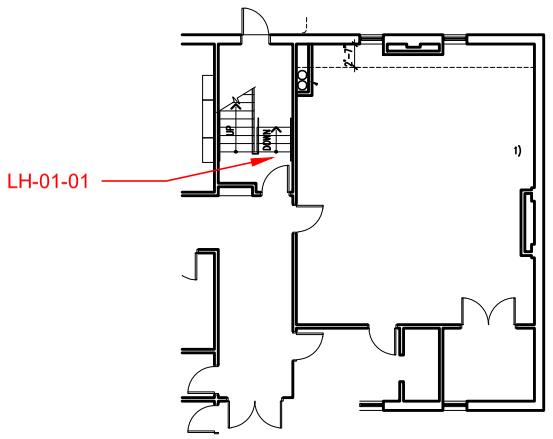
Jurnee West (32)

Jamie Laginess

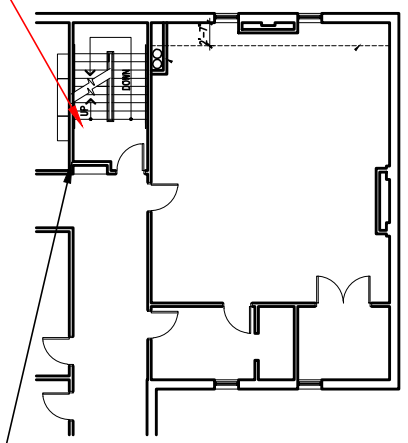
Jamie Laginess, Laboratory Operations Manager
or Other Approved Signatory

Initial report from: 03/06/2020 16:23:45

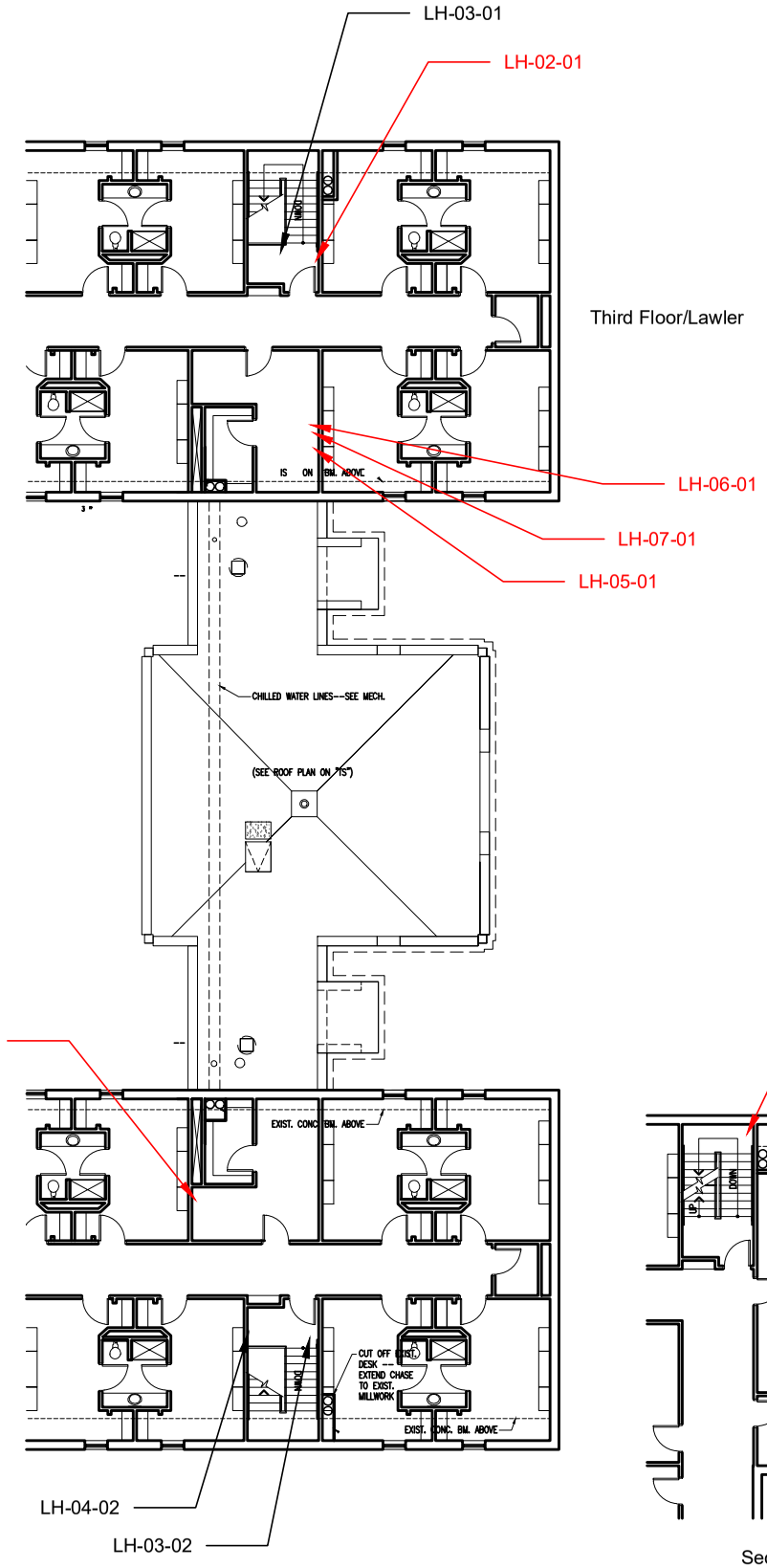
APPENDIX B
SAMPLE LOCATION MAPS



First Floor/Lawler

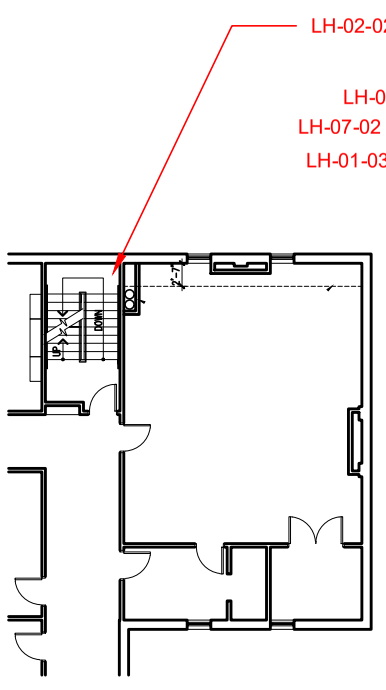


Second Floor/Lawler

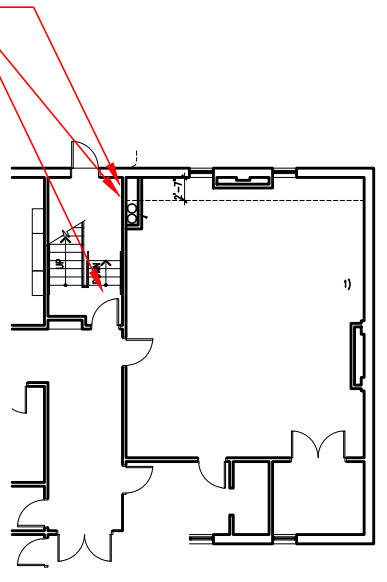


Third Floor/Lawler

Third Floor/Harkins



Second Floor/Harkins



First Floor/Harkins

LEGEND

LH-XX-XX - Bulk Material Sample Location

LH-XX-XX - Positive Bulk Material Sample Location

REVISIONS:

PROJECT #: 23216.56

DATE: March 2020

DRAWN BY: MH

DESIGNER: WN

CHECKED BY: WN

Pickering

Pickering Firm, Inc.
Facility Design • Civil Engineering • Surveying •
Transportation • Natural / Water Resources
2001 Airport Road, Suite 201
Jackson, MS 39232
601.956.3963

Lawler/Harkins Building
Delta State University
Cleveland, Mississippi

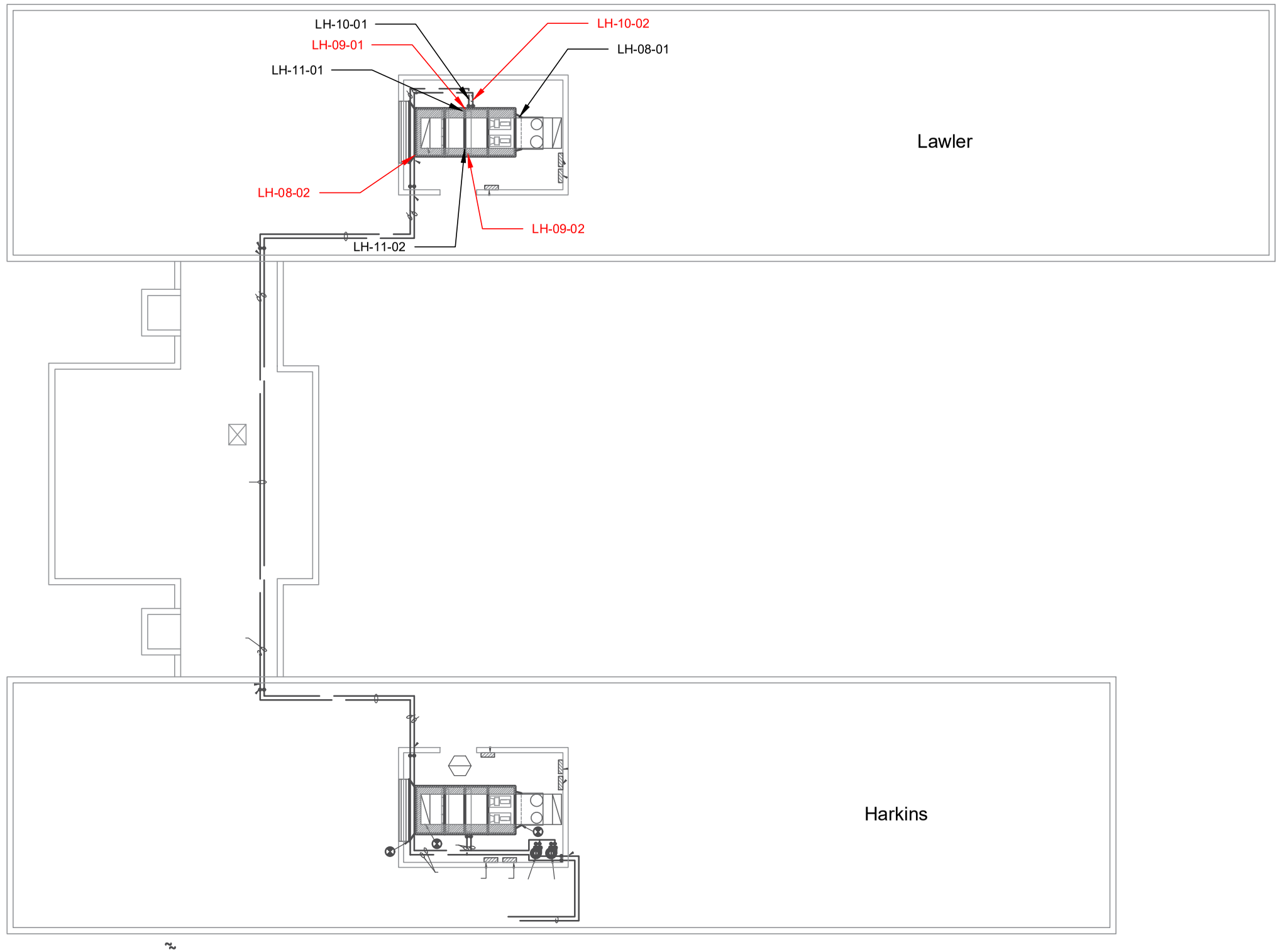
SEAL:

SHEET NUMBER:

1

DESCRIPTION:

Asbestos Sample Location



LEGEND

LH-XX-XX - Bulk Material Sample Location

LH-XX-XX - Positive Bulk Material Sample Location

REVISIONS:

PROJECT #: 23216.56

DATE: March 2020

DRAWN BY: MH

DESIGNER: WN

CHECKED BY: WN

Pickering
Pickering Firm, Inc.
Facility Design • Civil Engineering • Surveying •
Transportation • Natural / Water Resources
2001 Airport Road, Suite 201
Jackson, MS 39208
601.956.3963

Lawler/Harkins Building
Mechanical Penthouse
Delta State University
Cleveland, Mississippi

SEAL:

SHEET NUMBER:

2

DESCRIPTION:

Asbestos Sample Location

APPENDIX C
INSPECTOR CERTIFICATION

State of Mississippi

Department of Environmental Quality

Office of Pollution Control

Certificate of Licensure

In accordance with the Asbestos Abatement Accreditation and Certification Act,
Enacted as 1989 Mississippi Law, Chapter 505

Be it known that

Marcus D Hope

Having submitted acceptable evidence of qualifications and
training and other appropriate information, is hereby granted this

Asbestos Inspector

Certification

Chief, Air Division

Certificate No.: ABI-00008933
Expiration Date: Jan 16th, 2021
Training Expires on Jan 16th, 2021

73186 LIC20200001

STATE OF MISSISSIPPI
TATE REEVES
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHRIS WELLS, INTERIM EXECUTIVE DIRECTOR

January 17, 2020

Willie J. Nester
Pickering Firm
2001 Airport Rd
Suite 201
Flowood, Mississippi 39232

Dear Willie J. Nester:

Re: Certificate Of Licensure
Asbestos Inspector Certification

Enclosed please find the certificate issued to you by the Commission on Environmental Quality for the asbestos abatement category referenced above.

Your certification will expire as referenced on the face of the certificate. During the year of valid certification you should ensure that required refresher training is completed and proof of completion of this training is obtained for submittal when renewal of certification is sought.

Any inquiries regarding this certificate should reference your name, certification number, and category of certification. If you have any questions or if we can be of service, please contact us.

Sincerely,

Chad LaFontaine, P.E.
Chief, Air Division

Enclosure

40546 LIC20200001

State of Mississippi

Department of Environmental Quality

Office of Pollution Control

Certificate of Licensure

In accordance with the Asbestos Abatement Accreditation and Certification Act,
Enacted as 1989 Mississippi Law, Chapter 505

Be it known that

Willie J. Nester

Having submitted acceptable evidence of qualifications and
training and other appropriate information, is hereby granted this

Asbestos Inspector

Certification

Certificate No.: ABI-00002244
Expiration Date: Jan 16th, 2021
Training Expires on Jan 16th, 2021

Chief, Air Division

40546 LIC20200001

SECTION 02000-ASBESTOS ABATEMENT

1.1 Contractor Requirements

A. The Asbestos Abatement Contractor (AAC) shall be licensed by the State of Mississippi as an Asbestos Abatement Contractor.

B. The AAC must be covered by asbestos specific liability insurance in the minimum amount of $1,000,000. The AAC shall present documentation that this coverage has been obtained.

1.2 Scope of Work

A. This specification covers the abatement of asbestos containing materials from building structures and components listed in B and shown on drawing AS-1 and AS-2. **This work is to be conducted in the Lawler and Harkins Halls at the Delta State University in Cleveland, Mississippi.**

B. This project covers the removal and appropriate disposition of all asbestos containing materials within the path of the new chilled water piping to run through the building. The following are the ACMs to be removed:

The AAC shall remove and dispose of the 9” x 9” floor tiles and mastic on the new 2nd and 3rd chilled water chases(See Drawing AS-1).

The AAC shall remove all ACM pipe insulation located in the north side 1st floor chapter room where the new piping will enter the building. Cut any holes in sheetrock wall where new piping may run through these walls.

The AAC shall remove and dispose of the textured ceiling in the 3rd floor north (Harkin) and south (Lawler) laundry room storage closet where the pipes will enter the building from the Harkin HVAC penthouse, and then exit the building onto the roof at Lawler Hall. Also, the AAC will clear off at least a 18” circle of textured ceiling materials where any pipe hangers will be attached to the ceilings with textured finish.

The AAC shall remove the existing black gasket and white duct connector from the air handlers from both the Harkins Hall penthouse and the Lawler Hall Penthouse. This work will require the AAC to demolish or remove some of the air handlers housing. Also remove the black wrapping on the pipes in the Lawler Hall Penthouse. Coordinate this work with the mechanical contractor so the entire air handlers are removed.

C. **Estimated Quantities**

The following asbestos containing materials are to be removed and disposed of as asbestos containing materials. The following estimates are not to be considered as absolute. **The AAC must make his own determination of the amounts of ACM to be removed.**

Floor tile & mastic	50	SQFT
Textured Ceiling	300	SQFT
Pipe insulation in stairwell	40	LNFT
Air handler gasket	80	LNFT
Duct Connector on Air Handlers	80	LNFT
Black wrap on pipe (Lawler Penthouse only)	6	LNFT

1.3 Description of Work

A. The work specified herein shall be the removal of asbestos containing materials by competent persons trained, knowledgeable and qualified in the techniques of abatement, handling and disposal of asbestos-containing and asbestos-contaminated materials and the subsequent cleaning of contaminated areas, who comply with applicable Federal, State, and Local regulations and are capable of and willing to perform the work of this Contract.

B. The AAC will be responsible for furnishing proof to the Project Designer and the Building Owner that the ACM removed as a part of this contract has been in fact disposed of and handled at the disposal site in conformance with 40 CFR 763 Appendix D to Subpart E.

C. The AAC shall supply all labor, materials services, insurance, permits and equipment necessary to carry out the work in accordance with all applicable Federal, State and Local regulations and these specifications.

D. The AAC is responsible for restoring the work area and auxiliary areas utilized during the abatement to conditions equal to or better than original. Any damages caused during the performance of abatement activities shall be repaired by the AAC (e.g. paint peeled off by barrier tape, nail holes, water damage, broken glass, damage to building exterior or grounds) at no additional expense to the Building Owner.

E. The AAC shall coordinate his schedule with the General Contractor on this project.

1.4 Applicable Standards and Guidelines

A. General Requirements

1. All work under this Contract shall be done in strict accordance with all applicable Federal, State and Local regulations, standards and codes governing asbestos abatement and any other trade work done in conjunction with the abatement.

2. The most recent edition of any relevant regulation, standard, document or code shall be in effect. Where conflict among the requirements or with these specifications exists, the most stringent requirements shall be utilized.

3. Copies of all standards, regulations, codes and other applicable documents, including this specification and those listed in Section 1.5.2 shall be available at the worksite in the clean change area of the worker decontamination system.

B. Specific requirements

1. Occupational Safety and Health Administration (OSHA)

a. Title 29 Code of Federal Regulations Section 1910.1001 - General Industry Standard for Asbestos.

b. Title 29 Code of Federal Regulations Section 1910.134 - General Industry Standard for Respiratory Protection.

c. Title 29 Code of Federal Regulations Section 1926 - Construction Industry.

d. Title 29 Code of Federal Regulations Section 1910.2 - Access to Employee Exposure and Medical Records.

e. Title 29 Code of Federal Regulations Section 1910.1200 - Hazard Communication

2. Environmental Protection Agency (EPA)

a. Title 40 Code of Federal Regulations Section 61 Subparts A and M (Revised Subpart B) - National Emission Standard For Asbestos

3. These specifications and any applicable drawings in their entirety, are to be a part of any subcontract let by the General Contractor on this project. The General Contractor will be held responsible for the whole actions by any of his subcontractors or their employees. All sections and provisions of this specification and any drawings that are a part of this specification are to be adhered to by any subcontractor on this project. The General Contractor will be responsible for supervising his subcontractors.

1.5 Submittals and Notices

A. AAC shall:

1. Prior to Commencement of Work:

a. The AAC shall send notification in accordance with 40 CFR Part 61.146 of Subpart M, to the appropriate State or Federal air pollution control agency responsible for the enforcement of the National Emission Standard for Asbestos at least ten (10) days prior to the commencement of any on-site project activity. Provide Project Designer with a copy of the notice.

b. Obtain and submit a copy of the letter from the landfill stating that it is qualified to dispose of asbestos containing material.

c. Submit documentation satisfactory to the Building Owner and Project Designer that the AAC's employees, including foreman, supervisors and any other company personnel or agents who may be exposed to airborne asbestos fibers or who may be responsible for any aspects of abatement activities, have received the appropriate certificates from the Mississippi Department of Environmental Quality.

d. Maintain "ON SITE" and available for inspection at any time by authorized persons copies of all Accreditation Certificates for each and every person working on this Project, for which accreditation is required.

2. Upon completion of Abatement Work

a. Submit job progress reports detailing abatement activities. Include review of progress with respect to previously established milestones and schedules, major problems and action taken, injury reports, equipment breakdown and bulk material and air sampling results conducted by AAC's Air Sampling Professional.

b. Submit copies of all transport manifests, trip tickets and disposal receipts for all asbestos waste materials removed from the work area during the abatement process.

c. Submit copies of worksite entry logbooks with information on worker and visitor access.

d. Submit logs documenting filter changes on respirators, HEPA vacuum, negative pressure ventilation units, and other engineering controls.

e. Submit results of bulk material analysis and air sampling data collected during the course of the abatement, including OSHA compliance air monitoring results.

B. Owner Shall:

1. Prior to Commencement of Work

a. Notify occupants of work areas that may be disrupted by the abatement of project dates and requirements for relocation. Arrangements must be made prior to start, for relocation of equipment and personal possessions to avoid unauthorized access into the work area.

b. Document that Owner's employees who will be required to

enter the work area during abatement have received training equal to that detailed in Part 4, Section 4.1.

c. Provide to the AAC information concerning access, shutdown and protection requirements of certain equipment and systems in the work area.

1.6 Site Security

A. The work area is to be restricted only to authorized, trained and protected personnel. These may include the AAC's employees, employees of Subcontractors, Owner employees and representatives, State and Local inspectors and any other designated individuals. A list of authorized personnel shall be established prior to job start and posted in the clean room of the worker decontamination facility.

B. Entry into the work area by unauthorized individuals shall be reported immediately to the Building Owner by the AAC.

C. A logbook shall be maintained in the clean room area of the worker decontamination system. Anyone who enters the work area must record name, affiliation, time in, and time out for each entry.

D. Access to the work area shall be through a single worker decontamination system. All other means of access (doors, windows, hallways, etc.) shall be blocked or locked so as to prevent entry to or exit from the work area. The only exceptions for this rule are the waste pass-out airlock which shall be sealed except during the removal of containerized asbestos waste from the work area, and emergency exits in case of fire or accident. Emergency exits shall not be locked from the inside, however, they shall be sealed with polyethylene sheeting and tape until needed.

E. AAC should have control of site security during abatement operations whenever possible, in order to protect work efforts and equipment.

F. AAC will have Owner's assistance in notifying building occupants of impending activity and enforcement of restricted access by Owner's employees and other potential occupants.

PART 2

2.1 Materials

A. General (all abatement projects)

1. Deliver all materials in the original packages, containers of bundles bearing the name of the manufacturer and the brand name (where applicable).

2. Store all materials subject to damage off the ground, away from wet or damp surfaces and under cover sufficient enough to prevent damage or contamination.

3. Damaged, deteriorating or previously used materials shall not be used and shall be removed from the worksite and disposed of properly.

4. The AAC shall determine the method of attaching polyethylene sheeting to walls, where required. The manner in which polyethylene sheeting is to be supported shall be selected to minimize damage to equipment and surfaces.

5. Polyethylene sheeting utilized for worker decontamination enclosure shall be opaque white or black in color.

6. Disposal bags shall be of 6-mil polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152 (b) (i) (iv) or OSHA requirement 29 CFR 1910.1001 (g) (2) (ii). Disposal bags will be "TRANSLUCENT" or "CLEAR", **OPAQUE bags not approved.**

7. Disposal drums shall be metal or fiberboard with locking ring tops.

8. Stick-on labels as per EPA or OSHA requirement for disposal drums.

9. Warning signs as required by OSHA 29 CFR 1910 et al, August 10, 1994.

B. Removal

1. Surfactant (wetting agent) shall be a 50/50 mixture of polyoxyethylene ether and polyoxyethylene ester, or equivalent, mixed in a proportion of 1 fluid ounce to 5 gallons of water or as specified by manufacturer. (An equivalent surfactant shall be understood to mean a material with a surface tension of 29 dynes/cm as tested in its properly mixed concentration, using ASTM method D1331-56 - "Surface and Interfacial Tension of Solutions of Surface Active Agents.") Where work area temperature may cause freezing of the amended water solution, the addition of ethylene glycol in amounts sufficient to prevent freezing is permitted.

2. The AAC will submit encapsulating agent to be applied to surface from which asbestos containing material has been stripped to the Project Designer for approval. The AAC will have conducted the necessary tests to prove the adhesion of the material as it is applied to the encapsulated substrate. It is the responsibility of this AAC to insure that the encapsulating material will adhere to the substrate with no detrimental action to said substrate. This AAC is to guarantee the adherence for at least five (5) years after completion of this contract.

2.2 Equipment

A. General (all abatement projects)

1. A sufficient quantity of negative pressure ventilation units equipped with HEPA filtration and operated in accordance with ANSI 29.2-79 (local exhaust ventilation requirements) and EPA guidance document EPA 560/5-83-002 Guidance for Controlling Friable Asbestos-Containing Materials in Buildings Appendix F: Recommended Specifications and Operating Procedures for the Use of Negative Pressure Systems for Asbestos Abatement shall be utilized so as to provide four (4) workplace air changes every hour.

2. Spectacle kits and eyeglasses must be provided for employees who wear glasses and who must wear full facepiece respirators. Respirators shall be provided that have been tested and approved by the National Institute of Occupation Safety and Health for use in asbestos contaminated atmospheres.

3. Full body disposable protective clothing, including head, body and foot coverings consisting of material impenetrable by asbestos fibers ("Tyvek" or equivalent) shall be provided to all workers and authorized visitors in sizes adequate to accommodate movement without tearing.

4. Additional safety equipment (e.g. hard hats meeting the requirements of ANSI Standard Z89.1-1981, eye protection meeting the requirements of ANSI Standard Z87.1-1979, safety shoes meeting the requirements of ANSI Z41.1-1967, disposable PVC gloves), as necessary, shall be provided to all workers and authorized visitors.

5. Non-skid footwear shall be provided to all abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.

6. A sufficient supply of disposable mops, rags and sponges for work area decontamination shall be available.

B. Removal

1. A sufficient supply of scaffolds, ladders, lifts and hand tools (e.g. scrapers, wire cutters, brushes, utility knives, wire saws, etc.) shall be provided as needed.

2. Sprayers with pumps capable of providing 500 pounds per square inch (psi) at the nozzle tip at a flow rate of two (2) gallons per minute for spraying amended water.

3. Rubber dustpans and rubber squeegees shall be provided for cleanup.

4. Brushes utilized for removing loose asbestos containing material shall have nylon or fiber bristles, not metal.

5. A sufficient supply of HEPA filtered vacuum systems shall be available during cleanup.

C. Encapsulation

1. Encapsulant shall be sprayed using airless spray equipment. Nozzle pressure should be adjustable within the 400 to 1500 psi range. (This can be specified depending on the encapsulant's viscosity and solids content. Tip size shall also be specified based on manufacturer's recommendations.)

2. The nature of the encapsulant may affect the requirements for respiratory protection. Vapors that may be given off during encapsulant application must be taken into account when selecting respirators, if types other than air supplied are used.

PART 3

3.1 Execution

A. Work Areas

1. Post caution signs meeting the specifications of OSHA 29 CFR 1910 et al at any location and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from the work area to permit an employee to read the sign and take the necessary protective measures to avoid exposure. Additional signs may need to be posted following construction of workplace enclosure barriers.

2. Provide necessary electric power and access to the electric breakers and switch gear in this work area. Provide temporary power and lighting. Insure safe installation (including ground faulting) of temporary power sources and equipment by compliance with all applicable electrical code requirements and OSHA requirements for temporary electrical systems. All costs for electrical power shall be paid for by the Owner.

3. Shut down and lock out all heating, cooling and air conditioning system (HVAC) components that are in, supply or pass through the work area. (Note: Interiors of existing ductwork may require decontamination. This may be done during the pre-cleaning phase of operations before the ductwork is sealed off or during the final cleaning phase prior to re-engagement of the system. Appropriate equipment and control measures shall be utilized to prevent contamination of building spaces during this operation. Adequate cleaning of ductwork may sometimes be accomplished by drawing high volumes of air through the system using the HEPA filtered negative pressure ventilation units.) Investigate the work area and agree on pre-abatement condition with Building Owner. Seal

all intake and exhaust vents in the work area with tape and 6-mil polyethylene. Also seal any seams in system components that pass through the work area. Remove all HVAC system filters and place in labeled 6-mil polyethylene bags for staging and eventual disposal as asbestos contaminated waste.

4. The AAC shall provide sanitary facilities for abatement personnel outside of the enclosed work area (containment area) and maintain them in a clean and sanitary condition throughout the project.

   The Owner may allow the use of permanent sanitary facilities at his option. If Owners Facilities are used by this AAC he will be responsible for maintaining them in a clean condition. Upon leaving the job site clean the entire sanitary facility and leave it in spotless condition and odor free.

5. AAC shall connect to existing Owner system if available. Otherwise the contractor shall provide his own water for this project.

6. Seal off all windows, doorways, elevator openings, corridor entrances, drains, ducts, grilles, grates, diffusers, skylights and any other openings between the work area and uncontaminated areas outside of the work area (including the outside of the building, tunnels and crawl spaces) with 4-mil polyethylene sheeting and tape. (See Section 3.1.4 - Isolating work area from occupied areas)

7. Cover floors in the work area with polyethylene sheeting (except where floor tile is being removed).

B. Worker De-con Unit

1. Worker change room shall be provided at all locations where workers will enter or exit the work area. One system at a single location for each contained work area is preferred. These systems may consist of existing rooms outside of the work area, if the layout is appropriate, that can be enclosed in plastic sheeting and are accessible from the work area. When this situation does not exist, enclosure systems may be constructed out of metal, wood or plastic support as appropriate.

2. Plans for construction, including materials and layout, shall be submitted as shop drawings and approved by the Owner’s representative prior to work initiation. Worker decontamination enclosure systems constructed at the worksite shall utilize 6-mil opaque black or white polyethylene sheeting or other acceptable materials for privacy.

3. The worker decontamination enclosure system for areas with friable asbestos shall consist of at least a clean room, a shower room, and an equipment room, each separated from each other and from the work area by airlocks. For floor tile and

mastic removal, the shower may be omitted and the clean room and equipment room can be combined into one change room.

4. Entry to and exit from all airlocks and decontamination enclosure system chambers shall be through curtained doorways consisting of two (2) sheets of overlapping polyethylene sheeting. One sheet shall be secured at the top and left side, the other sheet at the top and right side.

5. Access between any two (2) rooms in the de-con unit or the work area shall be through an airlock with at least three (3) feet separating each curtained doorway. Pathways into (from clean to contaminated) and out from (contaminated to clean) the work area shall be clearly designated.

6. Clean room shall be sized to adequately accommodate the work crew. Benches shall be provided as well as hooks for hanging up street clothes. (Lockers may be provided for valuables, however, workers may be requested to secure valuables in their cars.)

7. A shower room located between the change room and the equipment room, will be required for the cooler room and crawlspace abatement. Each showerhead shall be supplied with hot and cold water adjustable at the tap. The shower enclosure shall be constructed to insure against leakage of any kind. An adequate amount of soap, shampoo and towels shall be supplied by the AAC and available at all times. Shower water shall be drained, collected and filtered through a system with at least five (5) micron particle size collection capability. (Note: Shower rooms will not be required for removal of non-friable, NESHAP Category I material.) If a shower room is required, then a separate equipment room will be required between the shower room and the work area.

8. The equipment room shall be used for storage of equipment and tools at the end of a shift after they have been decontaminated using a HEPA filtered vacuum and/or wet cleaning techniques as appropriate. Replacement filters (in sealed containers until used) for HEPA vacuums and negative pressure ventilation equipment, extra tools, containers of surfactant and other materials and equipment that may be required during the abatement may also be stored here as needed.

C. Isolation of the work area from occupied areas of the building.

1. The contaminated work area shall be separated from uncontaminated, occupied areas of the building by the construction of air tight barriers.

2. Walls shall be constructed of wood or metal framing to support barriers in all openings larger than 4 feet X 8 feet.

3. A sheeting material (plywood, drywall) of at least 3/8 inch thickness shall be applied to work side of barrier.

4. Cover both sides of partition with a double layer of 6-mil polyethylene sheeting with staggered joints and seal in place.

5. Caulk edges of partition at floor, ceiling, walls and fixtures to form an air tight seal.

6. Make-up air shall be filtered, where necessary, to prevent migration of construction debris into the work area.

D. Maintenance of workplace barriers and worker decontamination enclosure systems

1. Following completion of the construction of all polyethylene barriers and decontamination system enclosures, allow overnight settling to insure that barriers will remain intact and secured to walls and fixtures before beginning actual abatement activities.

2. All polyethylene barriers inside the workplace, in the worker decontamination enclosure system, in the waste container pass-out airlock and at partitions constructed to isolate the work area from occupied areas shall be inspected at least twice daily, prior to the start of each day's abatement activities and following the completion of the day's abatement activities. Document inspections and observations in the daily project log.

E. The negative air units must be started before any asbestos containing material is disturbed. After abatement procedures within the containment area have begun, the unit should run continuously to maintain a constant negative pressure until the area has passed clearance. The unit should not be turned off at the end of the work shift or when removal operations are interrupted temporarily for any reason.

G. Once constructed and reinforced as necessary, with negative pressure ventilation units in operation as required, test enclosure for leakage utilizing smoke tubes. Repair or reconstruct as needed. Provide filtration for make-up air where dusty conditions exist outside the work area.

H. Clearly identify and maintain emergency and fire exits from the work area.

I. Commencement of work shall not occur until:

1. Enclosure systems have been constructed and tested.

2. Negative pressure ventilation systems are functioning adequately.

3. All pre-abatement submissions, notifications, postings and permits have been provided and are satisfactory to the Building Owner and Project Designer (See Section 1.5).

4. All equipment for abatement, clean-up and disposal are on hand.

5. All worker training (and certification) is completed.

6. AAC receives written permission from Building Owner to commence abatement.

3.2 Workplace Entry and Exit Procedures

A. Personnel entry and exit

1. All workers and authorized personnel shall enter the work area through the worker change room.

2. All personnel who enter the work area must sign the entry log, located in the clean room, upon entry and exit.

3. All personnel shall proceed first to the clean room, remove all street clothes and appropriately don respiratory protection (as deemed adequate for the job conditions) launderable and/or disposable coveralls, head covering and foot covering. Hard hats, eye protection and gloves shall also be utilized if required. Clean respirators and protective clothing shall be provided and utilized by each person for each separate entry into the work area.

5. Personnel wearing designated personal protective equipment shall proceed from the clean room through the shower room, if required, and equipment room to the main work area.

6. Before leaving the work area all personnel shall remove gross contamination from the outside of respirators and protective clothing by brushing and/or wet wiping procedures. Each person shall clean bottoms of protective footwear in the walk-off pan just prior to entering the equipment room.

7. Personnel shall proceed to equipment room where they remove all protective equipment except respirators. Deposit disposable (and launderable) clothing into appropriately labeled containers for disposal (and laundering.)

3.3 Removal Procedures

A. Clean and isolate the work area in accordance with Section 3.1.

B. Wet all asbestos containing material with an amended water solution using equipment capable of providing a fine spray mist, in order to reduce airborne fiber concentrations when the material is disturbed. Saturate the material to the substrate, however, do not allow

excessive water to accumulate in the work area. Keep all removed material wet enough to prevent fiber release until it can be containerized for disposal.

C. Saturated asbestos containing material shall be removed in manageable sections. Removed material should be containerized before moving to a new location for continuance of work. Surrounding areas shall be periodically sprayed and maintained in a wet condition until visible material is cleaned up.

D. Material removed from building structures or components shall not be dropped or thrown to the floor. Material should be removed as intact sections or components whenever possible and carefully lowered to the floor. For materials between 15 and 50 feet above the ground they may be containerized at elevated levels or dropped onto inclined chutes or scaffolding for subsequent collection and containerization.

E. Containers (6-mil polyethylene bags or drums) shall be sealed when full. Wet material can be exceedingly heavy. Double bagging of waste material is required. Bags shall not be overfilled. They should be securely sealed to prevent accidental opening and leakage by tying tops of bags in an overhand knot or by taping in gooseneck fashion. Do not seal bags with wire or cord.

F. Asbestos containing waste with sharp-edged components (e.g. nails, screws, metal lathe, tin sheeting) which would tear the polyethylene bags and sheeting shall be placed into drums for disposal.

G. After completion of all stripping work, surfaces from which asbestos containing materials have been removed shall be wet brushed and sponged or cleaned by some equivalent method to remove all visible residue.

H. Clean-up shall proceed in accordance with Section 3.5.

3.4 Clearance Air Monitoring

A. Aggressive sampling shall be performed with portable fans circulating air in the work area to simulate actual use conditions. Negative pressure ventilation units shall not be de-energized during this period.

B. The AAC shall hire an independent air monitoring firm to conduct PCM clearance air testing. The average concentrations of airborne fibers shall be less than 0.01 Fibers/CC for CLEARANCE release of the work area. One PCM clearance tests shall be performed for each containment area.

C. Areas exceeding this level shall be re-cleaned using procedures in Section 3.5 and re-tested until satisfactory levels are obtained. The owner shall be responsible for the cost of all initial testing for clearance. If the AAC fails a clearance test, then the AAC will be responsible for the cost of all subsequence clearance test required to clear the abatement area. TEM cassettes that are

overloaded with dust and debris to the extent that the samples are unreadable shall be considered to have failed.

3.5 Disposal Procedures

A. As the work progresses, to prevent exceeding available storage capacity on-site, sealed and labeled containers of asbestos containing waste shall be removed and transported to the prearranged disposal location.

B. Disposal must occur at an authorized site in accordance with regulatory requirements of NESHAP and applicable State and Local guidelines and regulations.

C. All dump receipts, trip tickets, transportation manifests or other documentation of disposal shall be delivered to the Building Owner for his records. A recommended record keeping format utilizes a chain-of- custody form which includes the names and addresses of the Generator (Building Owner), AAC, pickup site, and disposal site, the estimated quantity of the asbestos waste and the type of containers used. The form should be signed by the Generator, the AAC, and the Disposal Site Operator, as the responsibility for the material changes hands. If a separate hauler is employed, his name, address, telephone number and signature should also appear on the form.

D. Transportation to the landfill

1. Once drums, bags and wrapped components have been removed from the work area, they shall be loaded into an enclosed truck for transportation.

2. When moving containers, utilize hand trucks, carts and proper lifting techniques to avoid back injuries. Trucks with lift gates are helpful for raising drums during truck loading.

3. The enclosed cargo area of the truck shall be free of debris and lined with TWO (2) LAYERS OF 6-mil polyethylene sheeting to prevent contamination from leaking or spilled containers. Floor sheeting shall be installed first and extend up the side walls a minimum of TWENTY-FOUR (24) inches. Wall sheeting shall be overlapped and securely taped into place.

4. Drums or bags shall be placed on level surfaces in the cargo area and packed tightly together to prevent shifting and tipping. Large structural components shall be secured to prevent shifting and bags placed on top. Do not throw containers into truck cargo area.

5. Personnel loading asbestos containing waste shall be protected by disposable clothing including head, body and foot protection and at a minimum, half-facepiece, air-purifying, dual cartridge respirators equipped with high efficiency filters.

6. Any debris or residue observed on containers or surfaces outside of the work area resulting from clean-up or disposal activities shall be immediately cleaned-up using HEPA filtered vacuum equipment and/or wet methods as appropriate.

7. Large metal dumpsters are sometimes used for asbestos waste disposal. These should have doors or tops that can be closed and locked to prevent vandalism or other disturbance to the bagged asbestos debris and wind dispersion of asbestos fibers. Unbagged material shall not be placed in these containers. These containers shall not be used for non-asbestos waste. Bags shall be placed, not thrown, into these containers to avoid splitting.

E. Disposal at the landfill

1. Upon reaching the landfill, trucks are to approach the dump location as closely as possible for unloading of the asbestos containing waste.

2. Bags, drums and components shall be inspected as they are off-loaded at the disposal site. Material in damaged containers shall be repacked in empty drums or bags as necessary. (Local requirements may not allow the disposal of asbestos waste in drums. Check with appropriate agency and institute appropriate alternative procedures.)

3.6 Reestablishment of the Work Area and Systems

A. Reestablishment of the work area shall only occur following the completion of clean-up procedures and after clearance air monitoring has been performed and documented to the satisfaction of the Building Owner.

B. Polyethylene barriers shall be removed from walls and floors at this time, maintaining decontamination enclosure systems and barriers over doors, windows, etc., as required.

C. The AAC shall visually inspect the work area for any remaining visible residue. Evidence of contamination will necessitate additional cleaning requirements in accordance with Section 3.5.

D. Additional air monitoring shall be performed in accordance with Section 3.6 if additional clean-up is necessary.

E. Following satisfactory clearance of the work area, remaining polyethylene barriers may be removed and disposed of as asbestos contaminated waste.

F. At the discretion of the AAC, mandatory requirements for personal protective equipment may be waived following the removal of all barriers.

G. Re-secure mounted objects removed from their former positions during

area preparation activities.

H. Relocate objects that were removed to temporary locations back to their original positions.

I. Reestablish HVAC, mechanical and electrical systems in proper working order. Remove contaminated HVAC system filters and dispose of as asbestos contaminated waste. Decontaminate filter assembly using HEPA vacuums and wet cleaning techniques. Install new filters in HVAC systems. Dispose of old filters as asbestos waste.

J. Repair all areas of damage that occurred as a result of abatement activities.

K. The AAC will touch up or repaint any and all areas from which paint has been removed or damaged in the process of removing tape or other methods used in attachment of polyethylene sheets or other barriers.

L. The AAC will remove all traces of materials used to attach barrier material to the building structure. Care must be exercised when attaching barrier materials to porous building materials such as brick or cement block. All evidence of attachment or encapsulant materials must be removed upon completion of project.

3.7 Air Sampling Professional (ASP)

A. The AAC shall engage the services of an independent Air Sampling Professional to conduct Air sampling procedures in accordance with all pertinent OSHA, EPA, NIOSH or other regulations. The AAC’s ASP shall also perform area air monitoring while interior abatement work is performed. The project designer must approve the AAC’s ASP before work is to commence.

B. The AAC's ASP shall conduct air sampling in accordance with the NIOSH Standard Analytical Method for Asbestos in Air P&CAM 239 and/or Method 7400 or other acceptable methods as otherwise agreed upon.

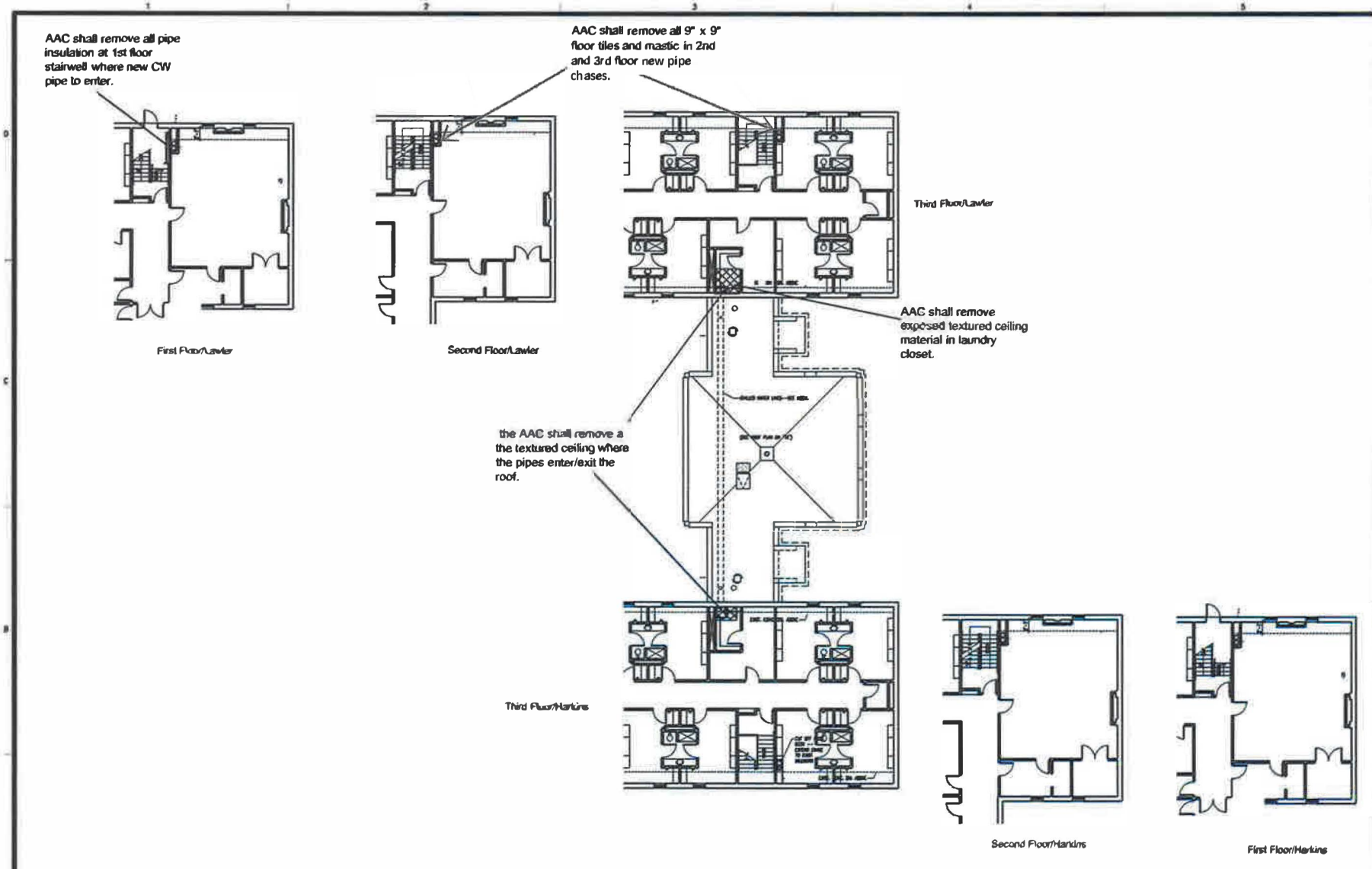
C. The AAC's ASP shall be experienced and knowledgeable about the methods for asbestos air sampling and be able to select representative numbers and locations of samples.

D. The AAC's ASP shall have adequate liability insurance to protect against errors and omissions in the performance of support activities.

3.8 PERSONNEL MANAGEMENT

A. The AAC shall exercise complete control over all actions of his employees while on the project site or while off site from the start of work to completion of the entire project.

END OF SECTION



LEGEND

- Location of ACM floor tile and mastic to be abated.
- Location of ACM textured ceiling to be abated in laundry room closet

REVISIONS

PROJECT #: 23216.56
DATE: March 2020
DRAWN BY: MH
DESCRIBE: BK
CHECKED BY: MB

Pickering

Pickering Firm, Inc.
Facility Design • Civil Engineering • Surveying • Transportation • Natural / Water Resources
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Jackson, MS 39208
601.948.3101

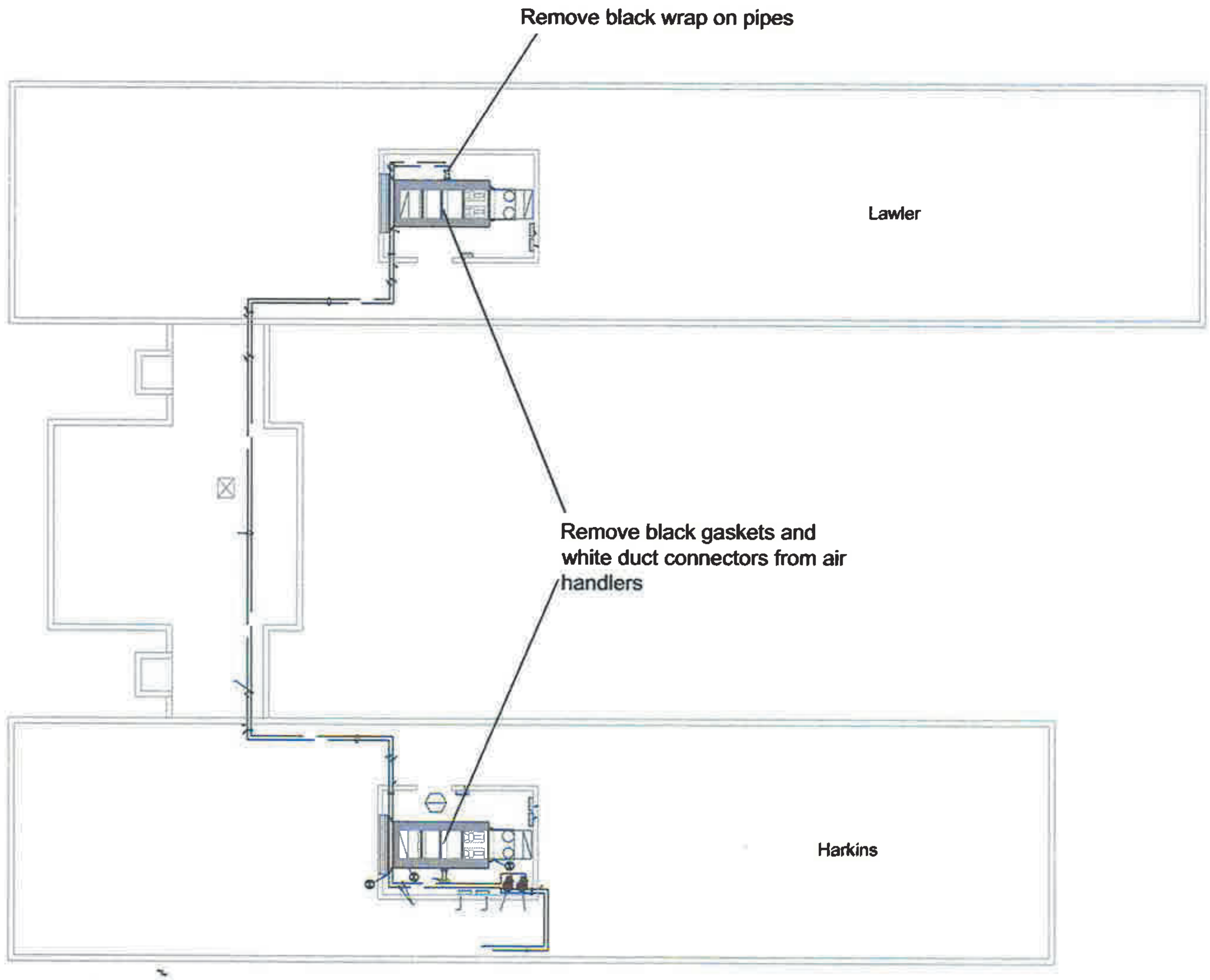
Lawler/Harkins Building
Delta State University
Cleveland, Mississippi

SEAL:

SHEET NUMBER:

AS-1

DESCRIPTION:
Asbestos Sample Location



REVISIONS:

PROJECT #: 23216.56
DATE: March 2020
DRAWN BY: MH
DESIGNER: MH
CHECKED BY: MH

Pickering
Pickering Firm, Inc.
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Mechanical Penthouse
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SEAL:

SHEET NUMBER:

AS-2

DESCRIPTION:
Asbestos Sample Location