BUILDING ENVELOPE CONSULTANTS, LLC

Columbia Area Office
1611 Chapin Road
Chapin, SC 29036
(803) 260-4532
(803) 422-7493

Charleston Area Office
226 N. Live Oak Drive
Moncks Corner, SC 29461
(843) 499-2756
(352) 397-8208

wmbeconsultants.com

Addendum No. 1

Date Issued: April 12, 2024

Project Name: SCC – P. Dan Hull Building Roof Replacement
Project Number: H59-6273 - PD

WMBE Project Number: 2023-47

Attachments:

1. Questions and Answers
2. Drawing Page – Additional Unit removal
3. Areas of Suspected Existing Wet Roof Insulation
4. Laydown Plan
5. PLM Results.
6. TEM results

This addendum modifies the Contract Documents as stated herein and shown on any accompanying drawings or attachments and is part of the Contract Documents.

Bidder shall acknowledge receipt of all addenda issued in the space provided on the Bid Form. Failure to acknowledge addenda may result in the bidders bid being rejected as non-responsive.

This addendum consists of 19 pages including attachments.

1. Changes to Bidding Requirements:
    a. None.
2. Changes to Specifications:
    a. None
3. Changes to Drawings:
    a. Additional Drawing sheet provided in addendum for additional mechanical units and associated penetrations to be removed.

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Questions and Answers

1. Question: Is any interior protection required inside the building?

   Answer: Yes, Contractor is responsible to protect interior machinery, servers, computers, books, etc. It is the contractor's responsibility to protect all interior conditions under areas of work.

2. Question: What is the wind-up lift pressures?

   Answer: Wind Resistance Design: Installed roof assembly shall meet or exceed the following wind uplift pressures. The tested assembly shall include a Factor of Safety of 2 of the pressures listed below.

   Roof Area(s) : Interior Field (1'): - 17 psf
   Field (1): - 27 psf
   Perimeter (2): - 34 psf
   Corner (3): - 44 psf

3. Question: How many units are abandoned to be removed?

   Answer: In addition to the areas hatched with the cross hatch to be removed on the drawing plans there are approximately a total of (24) pieces / ventilators that are additional items to be removed.

   (21) exhaust fans to remove. (2) HVAC units. One is a green colored "Swamp Cooler" we call it over the Kitchen. The other is the very old, abandoned HVAC unit sitting on the rusted steel above E46 HVAC lab. (1) Roof cap covered with sheet metal above E46 HVAC lab sink.

   Plan is attached for reference marked with a red dot.

4. Question: Are there specific locations expected to have existing wet insulation to be removed and replaced.

   Answer: Plan is attached with areas in red where test cuts will be completed prior to removal using the unit price line item.

5. Question: Can work be completed at night and on the weekends?

   Answer: Yes

6. Question: Where are wall panels to be installed?

   Answer: At all wall locations over 24 inches.

7. Question: Are all the mechanical units that were marked with an "X" to be removed?

   Answer: No

8. Question: Is tectum deck noted on R1.1 as damaged to be replaced as part of Unit Costs?

   Answer: No, to be included in base bid pricing.

9. Question: Existing wall ladders are to remain?

   Answer: No. All ladders shall be replaced with new.

10. Question: Is there any asbestos in the existing roof system or flashing?

    Answer: See attached TEM and PLM results.

11. Question: May contractor work during regular work hours Monday – Friday?

    Answer: Yes, but work shall only occur in areas where classes are not taking place. Class schedule will be discussed and issued to the awarded contractor. All work will take place around the class schedule. The equipment in the classrooms and labs must also be protected from damage.

12. Question: Chimney is to have metal cap and wall panels?

    Answer: Yes, and functioning chimney cap fabricated out of stainless steel.

13. Question: Is all roofing work to be self-performed or may contractor use subcontractors for roofing work?

    Answer: Certified pay roll can be requested by the agency at any time.

14. Question: All roof drains will be replaced, or just 10 selected with locations TBD? Will this be charged as Unit Costs or included in Base Bid?

Answer: All roof drains and overflow drains shall be raised and replaced with new. This will not be a unit price. This is to be included in the base bid and alternate bid based on roof areas in scopes of work.

15. Question: Will contractor be able to access the interior of the building during regular working hours to handle the required drain work?

    Answer: No, this will be after hour work and is to be completed during times when classes are not taking place in classrooms where drain work is taking place

16. Question: Will all roofing work be able to be performed during regular business hours Monday – Friday?

    Answer: All roofing work will be completed over areas where classes are not taking place. Class schedule will be provided. In areas where work is taking place the interior will have flagging and cones set up as required. The equipment in the classrooms and labs must also be protected from damage.

17. Question: Are all retrofit drains being replaced with new roof drain bowels, drain pipe connections, clamping rings, bolts and strainers?

    Answer: Yes.

18. Question: Is the low bid Contractor required to submit a Certified Pay Roll for Employees?

    Answer: The low bid Contractor is subject to submit a Certified Pay Roll.

19. Question: What is required if wood supports for equipment or other items can not be removed or substituted with pre-fabricated supports.

    Answer: Wood blocking will be replaced and wrapped in sheet metal prior to reinstallation.

20. Question: Is a licensed electrician and or plumber to be used and coordinate by the Contractor for any HVAC work to raise units and any plumbing work at roof drains?

    Answer: Yes.

21. Question: Is taper insulation required.

    Answer: Secondary taper is required to enhance positive drainage to roof drain locations. Secondary drainage, crickets, saddles, sumps, etc. to be 2x the primary slope.

22. Question: Are any roof membrane substitution request approved/accepted to be installed over the LWIC pour?

    Answer: Yes. Required 20 year Manufacturer's labor and Material no dollar limit warranty and a 73, mph wind speed rider include.

    - Carlisle's PVC FleeceBACK - 60mil
    - JM PVC FB – 60mil (Johns Manville)

23. Question: Is standing seam joints required for the coping?

    Answer: Yes.

24. Question: Is an underlayment system required behind wall panels.

    Answer: Yes

25. Question: What is the spacing of the hat channels?

    Answer: One at the bottom and top of wall and then spaced at 5' on center.

26. Question: How high does mechanical curbs and penetrations are to be raised?

    Answer: All equipment shall raised to the 8-inch minimum finished height from the top of the finished new roof system. This includes any associated gas lines, electrical , controls, etc.

27. Question: Are new wood nailers required at all perimeter locations and penetration locations?

    Answer: Yes, to match new insulation height and to obtain the minimum flashing height of 8" inches at penetrations.

28. Question: Is the edge condition to be two-piece condition?

    Answer: Yes.

29. Question: Is either prefinished Steel or prefinished Aluminum acceptable for metal details?

    Answer: Pre-finished galvalume or pre-finished aluminum is acceptable.

30. Question: Is a add and deduct price to be included on the bid form for the unit prices

    Answer: yes, add cost and deduct cost to be included. Add cost / deduct cost to be written on bid form.

31. Question: When the Single Ply is installed what will be required for cleaning at the end of the project?

    Answer: The Contractor will be responsible for cleaning the new roof system with recommended product per the system Manufacturer. No pressure washing / no abrasive methods of cleaning will be acceptable. Hand cleaning will include squeegee, mops, rags, etc.

32. Question: Is the Contractor to provide a three-ring binder with printed pages included in the closeout documents with items as listed in specification?

    Answer: Yes, two hard copies and also an electronic copy on a flash drive.

33. Question: In the approved laydown locations how are the grounds to be repaired?

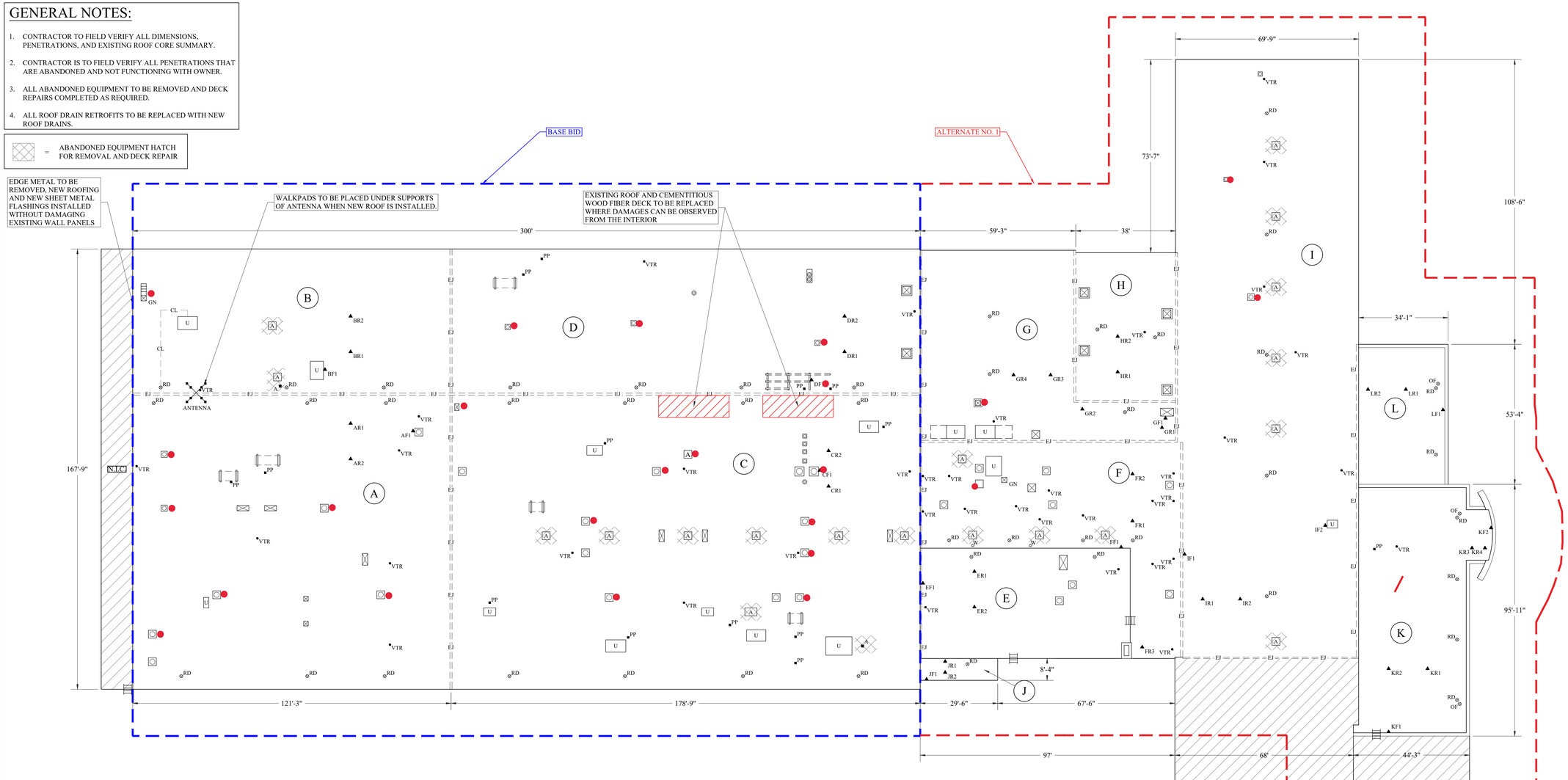
    Answer: Any concrete or paving will be repaired to match existing. Any grass locations will be repaired with sod to match existing grounds.

End of Addendum No. 1

GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, PENETRATIONS, AND EXISTING ROOF CORE SUMMARY.
2. CONTRACTOR IS TO FIELD VERIFY ALL PENETRATIONS THAT ARE ABANDONED AND NOT FUNCTIONING WITH OWNER.
3. ALL ABANDONED EQUIPMENT TO BE REMOVED AND DECK REPAIRS COMPLETED AS REQUIRED.
4. ALL ROOF DRAIN RETROFITS TO BE REPLACED WITH NEW ROOF DRAINS.

= ABANDONED EQUIPMENT HATCH FOR REMOVAL AND DECK REPAIR



EXISTING ROOF CORE SUMMARY

▲XRX CORE NUMBER AND IDENTIFIER
▲XFX FLASHING NUMBER AND IDENTIFIER

AR1 SBUR
PERLITE = 1"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 3-1/2"

AR2 SBUR
PERLITE = 1"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 3-1/2"

BR1 SBUR
PERLITE = 1"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 3-1/2"

BR2 SBUR
PERLITE = 1"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 3-1/2"

CR1 SBUR
PERLITE = 1"
BASE SHEET / VAPOR RETARDER
CEMENTITIOUS WOOD FIBER ROOF DECK
TOTAL THICKNESS = 3-1/2"

CR2 SBUR
PERLITE = 1"
BASE SHEET / VAPOR RETARDER
CEMENTITIOUS WOOD FIBER ROOF DECK
TOTAL THICKNESS = 3-1/2"

DR1 SBUR
PERLITE = 3/4"
POLYISOCYANURATE = 2-1/4"
BASE SHEET / VAPOR RETARDER
METAL ROOF DECK
TOTAL THICKNESS = 3-3/4"

DR2 SBUR
PERLITE = 3/4"
POLYISOCYANURATE = 2-1/4"
BASE SHEET / VAPOR RETARDER
METAL ROOF DECK
TOTAL THICKNESS = 3-3/4"

ER1 SBUR
PERLITE = 3/4"
BASE SHEET / VAPOR RETARDER
GYPSUM OVER METAL FORM
TOTAL THICKNESS = 2-1/4"

ER2 SBUR
PERLITE = 3/4"
BASE SHEET / VAPOR RETARDER
GYPSUM OVER METAL FORM
TOTAL THICKNESS = 2-1/4"

FR1 GBUR
PERLITE = 1-1/2"
BASE SHEET / VAPOR RETARDER
TECTUM / CEMENTITIOUS WOOD FIBER DECK
TOTAL THICKNESS = 2"

FR2 GBUR
PERLITE = 1-1/2"
BASE SHEET / VAPOR RETARDER
TECTUM / CEMENTITIOUS WOOD FIBER DECK
TOTAL THICKNESS = 2"

GR1 GBUR
PERLITE = 3"
BASE SHEET / VAPOR RETARDER
RED ROSEN PAPER
CEMENTITIOUS WOOD FIBER ROOF DECK
TOTAL THICKNESS = 3-1/2"

GR2 GBUR
PERLITE = 3"
BASE SHEET / VAPOR RETARDER
RED ROSEN PAPER
CEMENTITIOUS WOOD FIBER ROOF DECK
TOTAL THICKNESS = 3-1/2"

GR3 GBUR
PERLITE = 3"
BASE SHEET / VAPOR RETARDER
RED ROSEN PAPER
CEMENTITIOUS WOOD FIBER ROOF DECK
TOTAL THICKNESS = 3-1/2"

GR4 GBUR
PERLITE = 3"
BASE SHEET / VAPOR RETARDER
RED ROSEN PAPER
CEMENTITIOUS WOOD FIBER ROOF DECK
TOTAL THICKNESS = 3-1/2"

HR1 GBUR
PERLITE = 3/4"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 3-1/4"

HR2 GBUR
PERLITE = 3/4"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 3-1/4"

IR1 GBUR
PERLITE = 1-1/2"
BASE SHEET / VAPOR RETARDER
TECTUM / CEMENTITIOUS WOOD FIBER DECK
TOTAL THICKNESS = 2"

IR2 GBUR
PERLITE = 1-1/2"
BASE SHEET / VAPOR RETARDER
TECTUM / CEMENTITIOUS WOOD FIBER DECK
TOTAL THICKNESS = 2"

JR1 SBUR
PERLITE = 3/4"
BASE SHEET / VAPOR RETARDER
GYPSUM OVER METAL FORM
TOTAL THICKNESS = 2-1/4"

JR2 SBUR
PERLITE = 3/4"
BASE SHEET / VAPOR RETARDER
GYPSUM OVER METAL FORM
TOTAL THICKNESS = 2-1/4"

KR1 GBUR
PERLITE = 1/2"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 3"

KR2 GBUR
PERLITE = 1/2"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 3"

KR3 GBUR
PERLITE = 3-1/4"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 5-1/2"

KR4 GBUR
PERLITE = 3-1/4"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 5-1/2"

LR1 GBUR
PERLITE = 1/2"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 3"

LR2 GBUR
PERLITE = 1/2"
POLYISOCYANURATE = 2"
METAL ROOF DECK
TOTAL THICKNESS = 3"

1 / R-1.1 OVERALL EXISTING ROOF PLAN
1" = 20'

DESIGNED: DANIEL ATWELL

SPARTANBURG COMMUNITY COLLEGE
P. DAN HULL BUILDING ROOF REPLACEMENT
PROJECT NUMBER: H59-6273
111 COMMUNITY COLLEGE DRIVE
SPARTANBURG, SC 29303

BUILDING ENVELOPE CONSULTANTS, LLC

COLUMBIA AREA OFFICE
1611 CHAPIN ROAD
CHAPIN, SOUTH CAROLINA
EMAIL:CHRIS@WMBECONSULTANTS.COM
EMAIL:DANIEL@WMBECONSULTANTS.COM

CHARLESTON AREA OFFICE
226 N. LIVE OAK DRIVE
MONCKS CORNER, SOUTH CAROLINA
EMAIL:JOE@WMBECONSULTANTS.COM
EMAIL:MAX@WMBECONSULTANTS.COM

NORTH

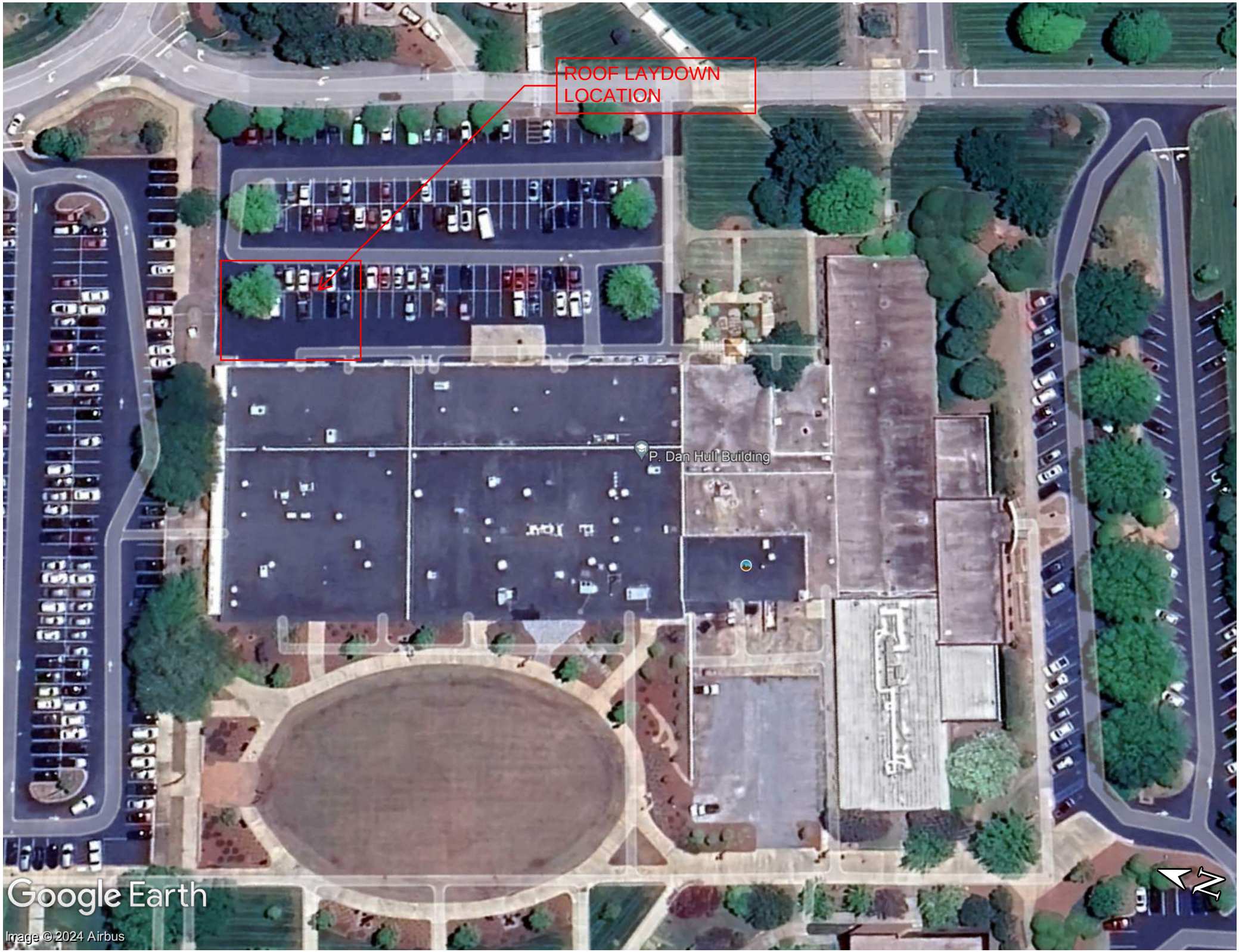
WMBE PROJECT NUMBER: 2023-47

CONSTRUCTION DOCUMENTS

DATE: 3/25/2024

OVERALL EXISTING ROOF PLAN

R-1.1


ROOF LAYDOWN
LOCATION
P. Dan Hull Building
Google Earth
Image © 2024 Airbus
N

RED AREAS ARE ANTICIPATED AREAS OF EXISTING WET ROOF INSULATION THAT WILL BE REMOVED AND REPLACED WITH NEW USING THE UNIT PRICE. TEST CUTS SHALL BE COMPLETED TO CONFIRM.

9751 Southern Pine Boulevard
Charlotte, NC 28273
704-940-1830 Fax 704-565-4929
NVLAP Lab Code 102075-0

POLARIZED LIGHT MICROSCOPY
Performed by EPA 600/R-93/116 Method

Asbestos Analysis Summary

Client Name WMBE Consultants
Client Job SCC P. Dan Hall Bldg 2023-47

1501 Chapin Rd
Chapin SC 29036

Date Received 4/24/2023
Date Analyzed 4/24/2023

Job Number 4335-15-156

Lab ID:	*Sample #:*	*Appearance*	*Comments*	*Asbestos %/Type*	*Non-Asbestos Fibrous %/Type*	*Non-Fibrous %/Type*
23-3386A	ER1	BLACK FIBROUS	ROOF	ND	20 GLASS	80 OTHER
23-3386B	ER1	GREY FIBROUS	INSULATION	ND	98 CELLULOSE	2 PERLITE
23-3387	ER1BS	BLACK FIBROUS		ND	1 CELLULOSE	99 OTHER
23-3388	EF1	WHITE/BLACK FIBROUS		ND	5 GLASS	95 OTHER

Analyzed by: Jane Wasilewski
Additional Comments: Issued 4/24/23

Jane Wasilewski
Laboratory Manager

For heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. ND = None Detected (Asbestos Not Present In Representative Sample). RCF= (Refractory Ceramic Fiber) The results relate only to the items tested.
The sample may not be fully representative of the larger material in question. This report shall not be reproduced except in full with permission from SME, Inc. This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Although Polarized Light Microscopy (PLM/Dispersion Staining) (Method EPA 600/R-93/116) is the specified method for analysis of bulk material samples for asbestos under the EPA Asbestos Hazard Emergency Response Act, there have been reports that this method may not identify asbestos when fiber sizes are extremely small or if they are bound in a resinous material. Such materials include floor tile, mastic and asphaltic roofing. Currently, reanalysis by Transmission Electron Microscopy (TEM) to verify results of <1% or "None Detected" for these materials is recommended.

Job Number 4335-15-156

Lab ID:	*Sample #:*	*Appearance*	*Comments*	*Asbestos %/Type*	*Non-Asbestos Fibrous %/Type*	*Non-Fibrous %/Type*
23-3389A	CR1	BLACK FIBROUS	ROOF	ND	20 GLASS	80 OTHER
23-3389B	CR1	GREY FIBROUS	INSULATION	ND	98 CELLULOSE	2 PERLITE
23-3390	CR1BS	BLACK/TAN FIBROUS		ND	10 GLASS 5 CELLULOSE	85 OTHER
23-3391	CF1	BLACK FIBROUS		ND	5 GLASS	95 OTHER
23-3392A	DR1	BLACK FIBROUS	ROOF	ND	20 GLASS	80 OTHER
23-3392B	DR1	GREY FIBROUS	INSULATION	ND	98 CELLULOSE	2 PERLITE

Analyzed by: Jane Wasilewski

Additional Comments: Issued 4/24/23

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Laboratory Manager

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Job Number 4335-15-156

Lab ID:	*Sample #:*	*Appearance*	*Comments*	*Asbestos %/Type*	*Non-Asbestos Fibrous %/Type*	*Non-Fibrous %/Type*
23-3393	DR1BS	BLACK FIBROUS		ND	15 CELLULOSE	85 OTHER
23-3394	DF1	BLACK FIBROUS		ND	5 GLASS 3 CELLULOSE 2 SYNTHETIC	90 OTHER
23-3395A	IR2	BLACK FIBROUS	ROOF	ND	20 GLASS	80 OTHER
23-3395B	IR2	GREY FIBROUS	INSULATION	ND	98 CELLULOSE	2 PERLITE
23-3396	IR2BS	BLACK FIBROUS		ND	10 GLASS 1 CELLULOSE	89 OTHER
23-3397	IF2	BLACK FIBROUS		ND	5 GLASS	95 OTHER

Analyzed by: Jane Wasilewski

Additional Comments: Issued 4/24/23

Jane Wasilewski
Laboratory Manager

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Job Number 4335-15-156

Lab ID:	*Sample #:*	*Appearance*	*Comments*	*Asbestos %/Type*	*Non-Asbestos Fibrous %/Type*	*Non-Fibrous %/Type*
23-3398A	GR1	BLACK FIBROUS	ROOF	ND	10 GLASS	90 OTHER
23-3398B	GR1	GREY FIBROUS	INSULATION	ND	98 CELLULOSE	2 PERLITE
23-3399	GR1BS	BLACK FIBROUS		ND	10 GLASS	90 OTHER
23-3400	GF1	BLACK FIBROUS		ND	5 GLASS 2 SYNTHETIC	93 OTHER
23-3401A	FR1	BLACK FIBROUS	ROOF	ND	20 GLASS	80 OTHER
23-3401B	FR1	GREY FIBROUS	INSULATION	ND	98 CELLULOSE	2 PERLITE

Analyzed by: Jane Wasilewski

Additional Comments: Issued 4/24/23

Jane Wasilewski
Laboratory Manager

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Job Number 4335-15-156

Lab ID:	*Sample #:*	*Appearance*	*Comments*	*Asbestos %/Type*	*Non-Asbestos Fibrous %/Type*	*Non-Fibrous %/Type*
23-3402A	FR1BS	BLACK/TAN FIBROUS	ROOF	ND	10 GLASS 5 CELLULOSE	85 OTHER
23-3402B	FR1BS	GREY FIBROUS	INSULATION	ND	98 CELLULOSE	2 PERLITE
23-3403	FF1	BLACK FIBROUS		ND	5 GLASS	95 OTHER

Analyzed by: Jane Wasilewski

Additional Comments: Issued 4/24/23

Jane Wasilewski
Laboratory Manager

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BULK SAMPLE
CHAIN OF CUSTODY RECORD 4335-15-156

S&ME
ENGINEERING • TESTING
ENVIRONMENTAL SERVICES

POLARIZED LIGHT MICROSCOPY
PERFORMED BY EPA 600/R-93/116 METHOD

PROJECT NO.	PROJECT NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
2023-47	Spartanburg Community College - P. Dan Hall Building Roof Replacement	Daniel Atwell	4/18/2023	12:00 PM	4/24/23
FACILITY Spartanburg Community College - P. Dan Hall Building		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
SAMPLER(S) Daniel Atwell	**DATE TAKEN** 4/18/2023	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

SAMPLE #	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
ER1 - GBUR	23-3386								
ER1BS - Base Sheet / VR	87								
EF1 - Flashing Sample	88								
CR1 - GBUR	89								
CR1BS - Base Sheet / VR	90								
CF1 - Flashing Sample	91								
DR1 - GBUR	92								
DR1BS - Base Sheet / VR	93								
DF1 - Flashing Sample	3394								
	—								

☐ Same Day ☐ 24 Hour ☐ 48 Hour ☒ 3-5 Day ☐ 6-10 Day

ALL SAMPLES WILL BE DISPOSED OF AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

By signing below, I warrant that I am authorized to enter into this agreement for the client named below, and that I authorize the above analysis subject to the terms and conditions on the reverse hereof.

AUTHORIZED BY _____ 3/17/23 PM (DATE & TITLE)

PRINT NAME Daniel Atwell - Project Manager

This agreement is governed by the terms and conditions on the reverse side hereof.

Analysis charges shall be as included in S&ME, Inc.'s fee schedule in effect at the time of the analysis.

CLIENT INVOICE INFORMATION

ATTN:
Client Name WM Building Envelope Consultants, LLC
Client PO#
Address 1501 Chapin Road
City, State, Zip Chapin, SC, 29036
Phone: (803) 422-7493 FAX:

SEND COPIES OF RESULTS TO

Name, Dept. Daniel Atwell, daniel@wmbeconsultants.com
Co. WM Building Envelope Consultants, LLC
Address 1501 Chapin Road
City, State, Zip Chapin, SC, 29036
Phone: (803) 422-7493 FAX:

WHITE COPY-LABORATORY YELLOW COPY-ACCOUNTING PINK COPY-CLIENT

S&ME
ENGINEERING • TESTING
ENVIRONMENTAL SERVICES

BULK SAMPLE
CHAIN OF CUSTODY RECORD

POLARIZED LIGHT MICROSCOPY
PERFORMED BY EPA 600/R-93/116 METHOD

PROJECT NO.	PROJECT NAME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
2023-47	Spartanburg Community College - P. Dan Hall Building Roof Replacement	Daniel Atwell	4/18/2023	12:00 PM	4/24/23
FACILITY Spartanburg Community College - P. Dan Hall Building		RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
SAMPLER(S) Daniel Atwell	**DATE TAKEN** 4/18/2023	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

SAMPLE #	LAB NUMBER	DATE ANALYZED	ANALYSTS INITIALS	ASBESTOS +	ASBESTOS N/D	ARCHIVE NUMBER	DATE ARCH	ARCHIVER INITIALS	SPECIAL INSTRUCTIONS
IR2 - SBUR	23- 3395								
IR2BS - Base Sheet / VR	96								
IF2 - Flashing Sample	97								
GR1 - SBUR	98								
GR1BS - Base Sheet / VR	3399								
GF1 - Flashing Sample	3400								
FR1 - SBUR	01								
FR1BS - Base Sheet / VR	02								
FF1 - Flashing Sample	3403								

☐ Same Day ☐ 24 Hour ☐ 48 Hour ☒ 3-5 Day ☐ 6-10 Day

ALL SAMPLES WILL BE DISPOSED OF AFTER ANALYSIS UNLESS OTHERWISE REQUESTED

By signing below, I warrant that I am authorized to enter into this agreement for the client named below, and that I authorize the above analysis subject to the terms and conditions on the reverse hereof.

AUTHORIZED BY _____ 3/17/23 PM (DATE & TITLE)

PRINT NAME Daniel Atwell - Project Manager

This agreement is governed by the terms and conditions on the reverse side hereof.

Analysis charges shall be as included in S&ME, Inc.'s fee schedule in effect at the time of the analysis.

CLIENT INVOICE INFORMATION

ATTN:
Client Name WM Building Envelope Consultants, LLC
Client PO#
Address 1501 Chapin Road
City, State, Zip Chapin, SC, 29036
Phone: (803) 422-7493 FAX:

SEND COPIES OF RESULTS TO

Name, Dept. Daniel Atwell, daniel@wmbeconsultants.com
Co. WM Building Envelope Consultants, LLC
Address 1501 Chapin Road
City, State, Zip Chapin, SC, 29036
Phone: (803) 422-7493 FAX:

WHITE COPY-LABORATORY YELLOW COPY-ACCOUNTING PINK COPY-CLIENT

OrderID: 412304309

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 412304309

EMSL ANALYTICAL, INC.
10801 SOUTHERN LOOP BLVD.
PINEVILLE, NC 28134
PHONE: 704-525-2205
FAX:

Company : WM Building Envelope Consultants, LLC	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments**
Street: 1501 Chapin Road	*Third Party Billing requires written authorization from third party*
City: Chapin / **State/Province: SC**	**Zip/Postal Code: 29036** / **Country: USA**
Report To (Name): Daniel Atwell	**Fax #: NA**
Telephone #: 803-260-4532	**Email Address: daniel@wmbeconsultants.com**
Project Name/Number: SCC - P. Dan Hall Building Roof Replacement / 2023-47	
Please Provide Results: ☐ Fax ☒ Email / **Purchase Order: NA**	**U.S. State Samples Taken: SC**

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☒ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☐ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT** (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☒ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: Daniel Atwell **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
GR3	SBUR		4/18/23
LR1	SBUR		
AR1	GBUR		
E1R1	GBUR		
GR3BS	Base Sheet / VR		
E1R1BS	Base Sheet / VR		
LF1	Flashing Sample		
E1F1	Flashing Sample		

Client Sample # (s): 1 - **Total # of Samples:** 8

Relinquished (Client): Daniel Atwell **Date:** 4/18/23 **Time:** 3:00 PM

Received (Lab): **Date:** 4-19-23 **Time:** 1245 UPS

Comments/Special Instructions:

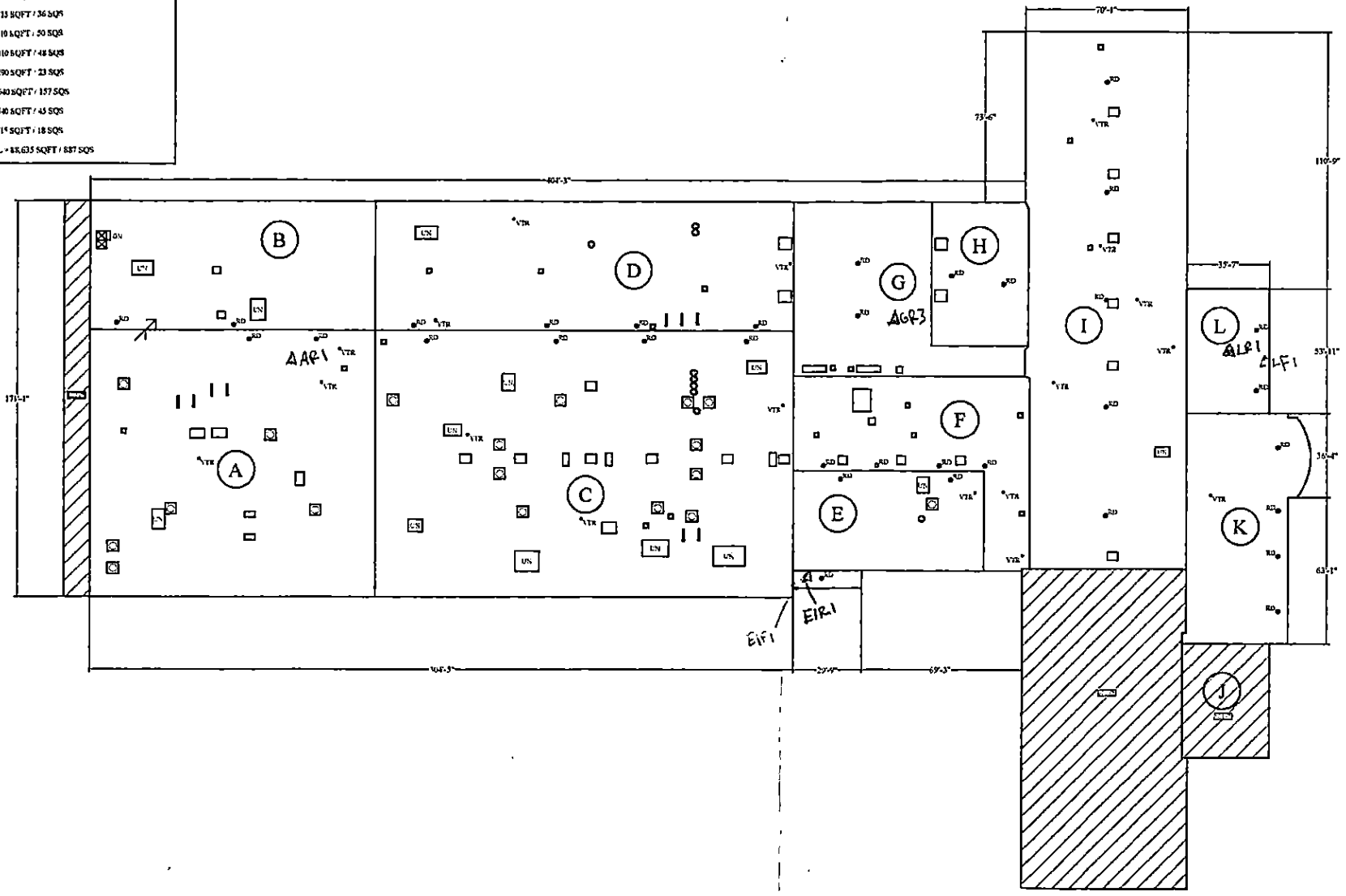
1Z 1A5 493 03 3516 1826

4309

TEM

APPROX. ROOF AREAS:

A = 13,745 SQFT / 138 SQS
B = 6,515 SQFT / 66 SQS
C = 20,655 SQFT / 209 SQS
D = 10,100 SQFT / 101 SQS
E = 3,535 SQFT / 36 SQS
F = 5,010 SQFT / 50 SQS
G = 4,810 SQFT / 48 SQS
H = 2,290 SQFT / 23 SQS
I = 15,640 SQFT / 157 SQS
K = 4,440 SQFT / 45 SQS
L = 1,715 SQFT / 18 SQS
TOTAL = 88,635 SQFT / 887 SQS



1 R-1.3 EXISTING ROOF PLAN 1" = 20'

DESIGNED BY

SPARTANBURG COMMUNITY COLLEGE
P. DAN HULL BUILDING ROOF REPLACEMENT
H59-N227-PD
800 BRISACK RD
SPARTANBURG, SC 29303

BUILDING ENVELOPE CONSULTANTS, LLC
COLUMBIA AREA OFFICE
1411 CHAPIN ROAD
CHAPIN, SOUTH CAROLINA
EMAIL: CHRIS@WABECONSULTANTS.COM
EMAIL: DANIEL@WABECONSULTANTS.COM
CHARLESTON AREA OFFICE
220 N. LIVE OAK DRIVE
MONCKS CORNER, SOUTH CAROLINA
EMAIL: JOE@WABECONSULTANTS.COM
EMAIL: MARK@WABECONSULTANTS.COM

NORTH

PROJECT NUMBER: 2023-07
DESIGN DEVELOPMENT
DATE: 4/10/2023

EXISTING ROOF PLAN

R-1.3

EMSL Analytical, Inc.
10801 Southern Loop Blvd Pineville, NC 28134
Tel/Fax: (704) 525-2205 / (704) 525-2382
http://www.EMSL.com / charlottelab@emsl.com

EMSL Order: 412304309
Customer ID: WMBE42
Customer PO:
Project ID:

Attention: Daniel Atwell
WM Building Envelope Consultants LLC
512 Limestone Point
Chapin, SC 29036

Phone: (803) 422-7493
Fax:
Received Date: 04/19/2023 12:45 PM
Analysis Date: 04/24/2023
Collected Date: 04/18/2023

Project: SCC - P. Dan Hall Building Roof Replacement/ 2023-47

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

Sample ID	Description	Appearance	% Matrix Material	% Non-Asbestos Fibers	Asbestos Types
GR3 *412304309-0001*	SBUR	Black Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
LR1 *412304309-0002*	SBUR	Black Fibrous Homogeneous V	100.0 Other	<0.1 Fibrous_Other	No Asbestos Detected
AR1 *412304309-0003*	GBUR	Black Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
E1R1 *412304309-0004*	GBUR	Black Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
GR3BS *412304309-0005*	Base Sheet / VR	Black Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
E1R1BS *412304309-0006*	Base Sheet / VR	Black Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
LF1 *412304309-0007*	Flashing Sample	Black Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
E1F1 *412304309-0008*	Flashing Sample	Gray Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected

Analyst(s)

Sarah Breneman (8)

Lee Plumley, Laboratory Manager
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. Pineville, NC

Initial report from: 04/24/2023 10:55:52