CLANCY &THEYS CONSTRUCTION COMPANY

2250 Shipyard Blvd., Suite 1
Wilmington, North Carolina 28403
910.392.5220 | www.clancytheys.com
NC License No. 2077

CLARIFICATION NO. 4

North Carolina Aquariums at Fort Fisher Expansion + Renovation

Kure Beach, NC

November 12, 2025

TO ALL BIDDERS:

This Clarification Letter supplements and amends the Bid Manual and shall be taken into account in preparing proposals and shall become part of the Contract Documents. The Bidder shall indicate receipt of this Clarification and any previously issued Clarifications on the Bid Form. Each Pre-Qualified Bidder is responsible for distribution of information conveyed in the Clarification to their sub-bidders and suppliers. This Clarification contains the following items and attachments and shall be incorporated into the Contract Documents.

1. **Clarifications Response Log:**
   - Clarification #2 Response Log 11.11.25 to submitted questions via RFI's.
     - Attached and published
2. **Hazardous Material Report:**
   - Uploaded/Attached per clarification response.
3. **Bid Packages Scope of Work:**
   - Revised to reflect Clarification Responses and Architect/Owner Comments.

End of Clarification 4

Attachments: Fort Fisher Aquarium_Hazardous Material Assessment Report_3-21-2024

Sub Requested Clarification Responses (located in the files tab > 02 Clarifications)

Revised Bid Packages SOW (located in the files tab > 05 Bid Packages)

The Fire Consultants, Inc.

September 12, 2024

Mr. James Mancari
North Carolina Aquariums
3125 Poplarwood Ct, Suite 160
Raleigh, NC 27604

FORT FISHER AQUARIUM EXPANSION PROJECT – HAZARDOUS MATERIALS REVIEW

Dear James:

This letter documents our evaluation and opinion regarding the hazardous material hazard classification, hazardous material inventory, and proposed use for the Ft. Fisher Aquarium Expansion Project located in Kure Beach, NC. The project involves an expansion/addition to the existing Ft. Fisher Aquarium and information available from the aquarium and design team have indicated that the only hazardous material scheduled to be on-site is ozone gas. New ozone generator(s) will be provided for the new exhibits/habitats and the aquarium also has existing ozone generators for existing exhibits. It is our understanding based upon discussions with the engineering firm designing the aquatic animal life support system(s) that the ozone gas mixture is generated within dedicated rooms and piped to the local filtration system for injection into the exhibit water system. The ozone gas mixture is reportedly generated "on-demand" and piped to the exhibits in a closed piping system and therefore, there is no storage or open use conditions. The current project is subject to the requirements of the 2018 North Carolina Fire Code (NCFC) and North Carolina Building Code (NCBC).

The hazardous material information in this letter is summarized from information supplied by the design team and representatives of the facility. TFC used this information to classify the hazardous material(s) provided and is not responsible for materials outside of those presented to us. The chemicals intended to be used or stored in the facility have been classified in accordance with the NCBC and NCFC definitions based upon available and researched Safety Data Sheets (SDS).

HAZARDOUS MATERIAL EVALUATION

The materials used in the ozone gas mixture generation process have been evaluated, for both new and existing systems, with respect to the NCFC and NCBC hazardous materials classification and documented Safety Data Sheet (SDS) information. The results of the classification and the understood use conditions are outlined below.

182 Briarfield Dr.
Apex, NC 27502
ph: (919) 301.0126
fax: (925) 979.9994
internet:
www.thefireconsultants.com

As noted above, the ozone gas mixture is generated “on-demand” and piped to the exhibits. The generators reportedly produce a gas mixture of 6% ozone gas in air. In accordance with available chemical information, the proposed concentration of generated ozone gas is classified as an oxidizing gas and as a toxic material. Available SDS information indicates that ozone gas has a one hour duration toxic concentration (LC_{50}) of between 9 ppm and 20 ppm at 100% concentration which would result in a highly toxic material classification; however, when accounting for the 6% concentration as utilized at the Ft. Fisher Aquarium systems, the one hour duration toxic dose increases to approximately 330 ppm, which categorizes as a toxic gas.

The existing facility has three (3) separate ozone generator systems that are used at reduced capacity or as redundant systems. Regardless, each of the existing generators reportedly have a generation rate capacity of 2.7 lbs/day which is approximately 30 standard cubic feet per hour (scfh) at normal temperature and pressure (NTP). The expansion project includes a new ozone generator system which reportedly has a generation rate capacity of 2.5 lbs/day, which is approximately 27 scfh at NTP. The following summarizes the hazardous material classification and use conditions.

Chemical	**Synonym(s)**	**Classification**	**Quantity**	**Max Storage**	**Max Closed Use**	**Max Open Use**
Ozone Gas (6%) - existing	Triatomic Oxygen (O_3)	Oxidizing Gas Toxic	3 x 30 scf = 90 scf	N/A	90 scf	N/A
Ozone Gas (6%) - new	Triatomic Oxygen (O_3)	Oxidizing Gas Toxic	27 scf	N/A	27 scf	N/A
					Total = 117 scf	

MAXIMUM ALLOWABLE QUANTITY EVALUATION

NCBC Tables 307.1(1) & (2) identify the maximum allowable quantities (MAQ) of hazardous materials that are allowed in a non-Group H occupancy control area. If the quantities exceed these MAQ values, the material(s) need to be split into multiple control areas or the space needs to be classified as a Hazardous (Group H) occupancy. The following table outlines the total quantity of materials in each classification for the facility as well as the total amount allowed per control area by the NCBC. The shown total amount allowed has been increased by 100% for the fully sprinklered building.

Hazard Category	**Storage**		**Use-Closed**		**Use-Open**	
	Qty	**MAQ**	**QTY**	**MAQ**	**Qty**	**MAQ**
Oxidizing Gas	N/A	3000 cf	117 cf	3000 cf	N/A	N/A
Toxic	N/A	1620 cf	117 cf	1620 cf	N/A	N/A

The amounts proposed to be in closed use at the facility are all less than the MAQ for a single control area, and as such, for non-Group H occupancy. The ozone generation equipment reportedly operates in “on-demand” conditions and therefore the maximum capacity generation rates have been utilized as the closed use condition volume(s). The generation rate should be a conservative assumption; however, if specific piping volumes become available, the calculated volumes will be reviewed for corresponding maximum quantities in comparison with the generation rates and maximum allowable quantities.

Reportedly, the ozone generation equipment is located in dedicated ozone rooms equipped with ventilation equipment providing a minimum of 6 air changes per hour and ozone gas detection that shuts down the generator(s). The hazardous material inventory is based on the quantities of the hazardous materials in the building as a whole, and therefore the building is considered a single control area in accordance with Sections 307 and 414 of the NCBC and Chapter 50 of the NCFC.

OTHER CONSIDERATIONS

Given that the closed use amounts of hazardous materials at the facility fall below control area limitations, no specific ventilation, spill control, secondary containment, emergency, or standby power, etc. requirements specifically apply. Chapter 50 of the NCFC provides some general requirements for the storage, handling, and use of hazardous materials. As noted above, the ozone rooms have dedicated exhaust/ventilation and gas detection.

SUMMARY

Based upon the evaluation described above, our opinion is that if the project is designed and operated as described, and the quantity of hazardous materials is maintained below the MAQ for a single control area as defined above, the hazardous material storage approach presented will comply with the applicable requirements of the NCBC for the intended use and occupancy.

Prepared by:

Craig E. Hofmeister, P.E. (NC)

CEH/AJK:ceh

13-1690/ LTCHPN Ft Fisher HazMat review

Limited Hazardous Materials Assessment
NC Aquarium Fort Fisher Addition and Renovation
Kure Beach, North Carolina
S&ME Project No. 23060119

Performed by: Benjamin Best Date: January 29 – February 13, 2024

PREPARED FOR:

NC Department of Natural and Cultural Resources
3125 Popularwood Ct, Suite 160
Raleigh, North Carolina 27604

PREPARED BY:

S&ME, Inc.
3006 Hall Waters Drive, Suite 100
Wilmington, NC 28405

March 21, 2024

March 21, 2024

NC Department of Natural and Cultural Resources
3125 Popular Ct, Suite 160
Raleigh, North Carolina 27604

Attention: Mr. James Mancari, Division Project Manager
James.mancari@ncaquariums.com

Reference: **Limited Hazardous Materials Assessment Report**
NC Aquarium Fort Fisher Addition and Renovation
Kure Beach, North Carolina
S&ME Project No. 23060119

Dear Mr. Mancari:

S&ME, Inc. (S&ME) is pleased to provide the enclosed report detailing our hazardous materials assessment of the NC Aquarium Fort Fisher's Entry Building, the East Wing of the Main Exhibit Building, and the Generator Building located at the 900 Loggerhead Road in Kure Beach, North Carolina. The purpose of the assessments was to identify asbestos containing materials (ACMs), and other hazardous materials in the referenced areas prior to the renovation project. Our services were performed between January 29 and February 13, 2024 in general accordance with S&ME Proposal No. 23060119, dated October 3, 2023, and the Agreement Letter between the State of North Carolina through the Department of Natural and Cultural Resources-North Carolina Aquariums, Raleigh, NC and S&ME, Inc. dated December 21, 2023, as authorized by return of the signed letter of agreement on January 10, 2024. The following report includes the project background, sampling and analysis procedures, findings and results, and conclusions and recommendations, as necessary.

This report is provided for the sole use of the NC Department of Natural and Cultural Resources. Use of this report by any other parties will be at such party's sole risk, and S&ME disclaims liability for any such use or reliance by third parties. The results presented in this report are indicative of conditions only during the time of the assessment and of the specific areas referenced.

S&ME appreciates this opportunity to provide our services to you. Please call if you have questions concerning this report or any of our services.

Sincerely,
S&ME, Inc.

Benjamin C. Best
Associate Project Manager
bbest@smeinc.com

Janet K. Phillips
Senior Industrial Hygienist
jphillip@smeinc.com

Sr. Review by Tom Behnke, P.G., CHMM

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Appendix VII – Photographs of Asbestos-containing Materials

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Appendix X – Photographs of Miscellaneous Hazardous Materials

Appendix XI – Asbestos Personnel Accreditation

Appendix XII – Asbestos Laboratory Results

Appendix XIII – Lead Paint Laboratory Results

Appendix XIV – PCB Caulk Laboratory Results

Executive Summary

S&ME, Inc. (S&ME) conducted a limited hazardous materials assessment on January 29th through February 13th, 2024, of the North Carolina (NC) Fort Fisher Aquarium located at 900 Loggerhead Road in Kure Beach, North Carolina. The limited hazardous materials assessment included the Entry Building, the East Wing of the 1st-3rd Floors of the Main Exhibit Building, and the Generator Building. The roofs of the structures were not included in this assessment at the owner's request. The purpose of the assessment was to identify asbestos-containing materials (ACMs), lead containing paint, and polychlorinated biphenyls (PCBs) in caulk prior to renovations and/or demolition activities associated with the buildings. This assessment also included documentation of material(s) known to include PCBs, Mercury, Chlorofluorohydrocarbons, or other Hazardous Materials/Universal Wastes.

The assessment included the interiors and exteriors of the structures, excluding the roofs. Homogeneous areas (HA) suspected of containing asbestos were identified and sampled in the subject structures that will be impacted by the upcoming renovation/demolition activities.

An ACM is defined by state and Federal regulations as a building material containing greater than one percent (>1%) of one of the six asbestos minerals regulated by the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA).

ACM identified in the assessment are listed in **Table E-1**.

Table E-1 Identified Asbestos-Containing Materials

HA	Material Description	[A]Location	[B]Quantity	[C]Type	[D]Cond/PD	Percent & Type Asbestos
Entry Building						
L[E]	Fire Doors	Rooms: 109, 108, 107, 106, and 103A	5 Doors	Misc.	Good/ High	Assumed
Main Exhibit Building, East Wing 1st-3rd Floors						
AF[E]	Fire Doors	All Interior Doors	125 Doors	Misc.	Good/ High	Assumed
CG	Black Mastic on 4" Chilled Water Line Fiberglass Insulation (Under white canvas)	Chilled Water Lines (Supply and Returns) located in Oceans Classroom Mechanical Room and Storage Room, Hallway Outside Oceans Classroom, Auditorium, and Auditorium Screen Room. The pipes transition to a larger diameter line in the Mechanical Chase.	200 LF	Misc.	Good/ High	5% Chrysotile

HA	Material Description	[A]Location	[B]Quantity	[C]Type	[D]Cond/PD	Percent & Type Asbestos
CN	Black Mastic on 6-8" Chilled Water Line Fiberglass Insulation and under Hard Fittings (Under white canvas)	Mechanical Room (MR) 131, Mechanical Chases between MR 131 and Husbandry 231, Husbandry 231, Exhibit Room 219, Mechanical Chase located South of Screen Room, Mechanical Room Under Auditorium	600 LF	Misc.	Good/High	10% Chrysotile

NOTES

HA = Homogeneous Area SF = Square feet LF = Linear feet CF = Cubic Feet

[A] Refer to Appendix II for sample locations.

[B] Quantities are approximate and should not be used for cost estimates or bidding purposes.

[C] Type: Misc. = Miscellaneous Sur = Surfacing TSI = Thermal System Insulation

[D] Cond = Condition: Good, Fair or Poor PD = Accessible during renovation or demolition, Potential for Disturbance; Low/High

[E] Material is assumed to be asbestos containing material.

The disturbance of painted surfaces containing lead is regulated by the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA). The EPA defines lead-based paint (LBP) as paint having a lead content of greater than or equal to 0.5 weight percent using laboratory analysis. OSHA classifies paint containing any detectable levels of lead as lead paint for purposes of complying with OSHA regulations regarding worker exposure (29 CFR 1926.62 – Lead in Construction). During the lead assessment, paint chip samples were collected from the interior and exterior painted surfaces to determine the presence of lead within the paint or coating. Of the representative paint chip samples collected and analyzed as a part of this assessment, the following data was compiled per building of the components with lead containing paint in **Table E-2**.

Table E-2 Identified Lead Containing Paint

Sample Number	Substrate	Component	Color	Sample Location	Concentration (% by weight)
Entry Building					
PB-10	Concrete	Ceiling	Dark Blue	Lobby	0.0041
Main Exhibit Building, East Wing 1st-3rd Floors					
PB-19	Concrete	Ceiling	Black	Center of 2nd Floor Exhibit Area, on Concrete Beam	0.0035
PB-29	Metal/Steel	Handrails	Black	Auditorium	0.0052
PB-39	CMU Block	Wall	White	2nd Floor, Operations Hallway	0.0091

Sample Number	Substrate	Component	Color	Sample Location	Concentration (% by weight)
				(Also in Rooms of Hallway)	
PB-42	Metal	Doors and Frames	Light Blue, Red, White	2nd Floor Operations Hallway Staff Restroom Door Frame	0.017
PB-57	Drywall	Wall	Dark Blue	Hallway Outside Auditorium (Also, on CMU Block Wall)	0.0047

Table E-3 Identified Hazardous Materials

Hazardous Materials	Material Descriptions	Material Locations	Estimated Quantity
PCB	Fluorescent Light and High Intensity Light Ballast	Entry Building	40
		Main Exhibit Building, East Wing	250
		Generator building	4
Mercury	Fluorescent Light Bulbs (Linear and U-Shape)	Entry Building	50
		Main Exhibit Building, East Wing (Additional lights are stockpiled in the Boiler Room)	600
		Generator building	8
Mercury	High Intensity Bulbs	Entry Building, Exterior	10
		Main Exhibit Building, East Wing (Exterior, Auditorium, and Exhibit Area)	35
Mercury	Ultraviolet Light Bulbs	Main Exhibit Building, East Wing-Husbandry	7
Mercury	Thermostats	Main Exhibit Building, East Wing	4
CFCs/ Refrigerants	Water Fountain	Main Exhibit Building, East Wing	2
CFCs/ Refrigerants	HVAC Equipment	Main Exhibit Building (East Wing)	5
Other Hazardous Materials or Universal Wastes			
	Exit Signs	Entry Building	4

Hazardous Materials	Material Descriptions	Material Locations	Estimated Quantity
Lead Acid Battery		Main Exhibit Building, East Wing	15
Lead Acid Battery	Generator Batteries	Generator Building	2
Petroleum (oil, coolant, and diesel)	Generators	Generator Building	2 Generators
Petroleum	Coolant	Generator Building	3, 5-gallon containers
Aquarium Operation Chemicals	Chlorine Solution	Husbandry 231	55-gallon drum
Aquarium Operation Chemicals	Sodium Thiosulfate Solution	Husbandry 231	55-gallon drum
Aquarium Operation Chemicals	Muriatic Acid	Mechanical Room 131	1-gallon container
Aquarium Operation Chemicals	Citric Acid	Mechanical Room 131	2, 5-gallon containers
Biocide	BromMax 7.1	Main Exhibit Building, East Wing (Mechanical Room 131)	2, 5-gallon containers
Petroleum	Oil	Main Exhibit Building, East Wing (Mechanical Room 131)	2, 5-gallon containers
Alcohol	Hand Sanitizer	Main Exhibit Building, East Wing (Mechanical Room 131)	55-gallon drum
Compressed Gas	Oxygen & nitrogen cylinders	3rd Floor- Room 304 and 305 1st Floor- Husbandry 134	30 Cylinders, various sizes

CFC = chlorofluorocarbon PCB = polychlorinated biphenyls HVAC = heating, ventilation and air-conditioning

Materials presumed to contain asbestos were not sampled but must be treated as asbestos unless later sampling by qualified individuals indicates the materials are not ACM. These materials are listed in Table E-1.

This summary is for convenience only and should not be relied upon without first reading the full contents of this report, including appended materials.

1.0 Introduction

The North Carolina Department of Natural and Cultural Resources (NCDNCR) retained S&ME to conduct a limited hazardous materials assessment in the Fort Fisher Aquarium located at 900 Loggerhead Road in Kure Beach, North Carolina. The assessment was performed by Benjamin Best of S&ME between January 29 through February 13, 2024.

This assessment was performed in general accordance with S&ME Proposal No. 23060119, dated October 3, 2023, and the Agreement Letter between the State of North Carolina through the Department of Natural and Cultural Resources, North Carolina Aquariums, Raleigh, NC, and S&ME, Inc. dated December 21, 2023, as authorized by return of the signed letter of agreement on January 10, 2024. The service was performed at the request of Mr. James Mancari of NCDNCR to Nate Buffum of S&ME by electronic mail on August 21, 2023.

The purpose of the assessment was to identify the presence of hazardous materials that may require removal and/or special disposal requirements prior to the renovation/demolition activities of the subject structures. The assessment included the interior and exterior of the following areas at the Fort Fisher Aquarium, excluding the roofs per the Owners request:

- The Entry Building.
- The East Wing of the 1st, 2nd, and 3rd Floors (Main Exhibit Building), and
- The Generator Building.

The roofs of the referenced areas were excluded as part of this assessment.

1.1 Asbestos

An ACM is defined by State and Federal regulations as a building material containing greater than one percent (>1%) of one of the six asbestos minerals regulated by the Environmental Protection Agency (EPA) and the OSHA.

Demolition and renovation in public and commercial buildings are regulated by OSHA, EPA, and North Carolina. The EPA and North Carolina Health Hazard Control Unit (NC-HHCU) require asbestos assessments, conducted by accredited individuals, prior to renovation and/or demolition projects. Code 40 of Federal Regulations Part 61, Subpart M, Final Rule, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and NC-HHCU require asbestos assessments, followed by the proper removal, and disposal of ACM that is affected by renovation or demolition. The identification of ACMs will aid in the prevention of occupational exposures and/or environmental releases of airborne asbestos. Identification of ACM is also required by OSHA 1926.1101. The EPA, OSHA and NC-HHCU define ACM as materials containing greater than one (1) percent asbestos in a representative sample. However, OSHA also regulates materials containing less than or equal to one percent asbestos.

1.2 Lead

The Environmental Protection Agency (EPA) defines lead-based paint (LBP) as paint having a lead content of greater than or equal to 0.5 weight percent using laboratory analysis. Paint containing detectable lead levels less than 0.5 weight percent using laboratory analysis is considered lead-containing paint (LCP) according to the Occupational Safety and Health Administration (OSHA). OSHA regulates worker exposure to lead regardless of the content of lead in paint. Loose chips, flake, dust, paint residue, paint removed from surfaces or paint dust

accumulations of LBP (excluding residential) must be tested using the Toxicity Characteristic Leachate Procedure (TCLP) to determine if it is hazardous waste. Metals painted with LBP can be recycled without removing the paint.

Demolition activities (e.g. component removal, demolition, sanding, grinding, burning, paint preparation, paint disturbance) involving LBP and LCP are covered under the OSHA Construction Industry Standard for Lead (Title 29 of the Federal Code of Regulations, Part 1926.62). OSHA compliance may require worker training, medical evaluations, personnel protective equipment, exposure assessment, air monitoring, hygiene facilities and practices, and health and safety plans. OSHA regulations do not define a minimum concentration of lead as a threshold for action. Thus, lead concentrations in paint below EPA levels are regulated by OSHA.

The lead assessment is intended to assess the need for the safe and proper management of painted surfaces during renovation or demolition activities associated with this renovation project of the subject buildings. The assessment and the resultant sample data are not meant to assess current or future building occupant exposure or to represent a risk assessment. Sampling of representative painted materials was performed as part of this assessment.

1.3 Polychlorinated Biphenyls (PCB)

1.3.1 Lamp Ballast

PCBs were banned in the United States in 1979. From 1978 to July 1, 1998, the EPA required manufacturers to mark light ballasts that do not contain PCBs with the statement "No PCBs." Since this is no longer a requirement of manufacturers, ballasts installed after 1998 with no identifiable PCB labeling is not considered PCB containing. Ballasts that are encountered during the demolition process that do not exhibit the "No PCBs" labeling that were installed prior to July 1, 1998, are required by the EPA to be disposed of in accordance with 40 CFR 761, subpart D of the Toxic Substance Control Act (TSCA) or sampled to determine the absence or presence of PCB levels. We recommend recycling, high temperature incineration, or disposal of any suspect PCB containing equipment in a hazardous waste landfill. Sampling and testing of suspected PCB containing equipment was not performed as part of this screening.

1.3.2 Caulk and Sealants

PCBs may be present in caulk and other sealant materials used in building construction between 1950 and approximately 1980. PCBs were a common additive to caulk and sealants because of their water and chemical resistance, durability, and elasticity. PCBs were added as a plasticizer in caulk used to seal joints between masonry units and around windows. Materials containing greater than 50 parts per million (ppm) must be disposed of in an EPA Toxic Substance Control Act (TSCA) approved landfill. Sampling and testing of suspected PCB containing caulks and sealants was performed as part of this screening. Samples of PCB caulking were not collected in the Entry Building, based on its 2002 construction date.

1.4 Mercury

Mercury containing items are designated as a Universal Waste by the EPA under 40 CFR 273, the Resource Conservation and Recovery Act (RCRA). The EPA requires the proper handling, shipping and disposal of mercury containing sources as part of the Universal Waste Rule (UWR). The mercury assessment was conducted to identify liquid mercury or mercury vapor containing items associated with the building. Mercury-containing items

include, but are not limited to, thermostats, thermometers, barometers, pressure gauges, switches, batteries, and fluorescent lamp tubes, and other mercury-containing lamps. Sampling and testing of suspect mercury containing items or items was not performed as part of this screening.

1.5 Refrigerants (Chlorofluorohydrocarbons)

The use, management, and release of refrigerants, such as chlorofluorohydrocarbons (CFCs), are regulated under the Clean Air Act (CAA) of 1990. Section 608 of the CAA forbids the venting of regulated refrigerants such as CFC refrigerants, as they deplete the ozone in the atmosphere. The refrigerants assessment was conducted to identify potential CFC containing equipment associated with the structure. Sampling and testing of suspect CFC containing equipment was not performed as part of this screening.

1.6 Other Hazardous Materials and Universal Wastes

Universal Wastes are hazardous wastes that should be removed prior to renovation or demolition but are handled and disposed of differently than other hazardous waste. Universal Waste is handled and disposed of per 40 CFR Part 273 and includes batteries, pesticides, mercury-containing equipment, lamps and aerosol cans. Universal Wastes are typically recycled. Sampling or testing is not performed for Universal Waste items.

2.0 Site and Project Description

2.1 Purpose

The purpose of the assessment was to:

- Inspect the referenced areas for the presence of suspected ACMs, lead-containing paint, mercury-containing products, PCB lighting ballasts and caulk, chlorofluorocarbon (CFC) containing equipment, and Universal Wastes.
- Collect samples of suspect ACMs following a National Emissions Standards for Hazardous Air Pollutants (NESHAPS) protocol for sample collection prior to renovation/demolition activities. Asbestos bulk samples will be analyzed using polarized light microscopy (PLM) in accordance with the EPA's July 1993 method for the determination of asbestos in bulk building materials - EPA 600/R-93/116.
- Collect bulk paint chip samples of primary or representative painted surfaces and other surfaces suspected to be coated with lead containing. Bulk samples will be analyzed at an accredited laboratory by Flame Atomic Absorption (AA) for Total Lead reported in weight percent.
- Collect bulk samples of suspect PCB containing caulking; if present. PCB samples will be analyzed by analytical method EPA 8082A.
- An inventory of other potential hazardous materials and regulated Universal Wastes.
- Visual assessment for readily accessible mold and/or moisture impacted building materials.

An assessment strategy believed by S&ME to be appropriate for this purpose was presented in our proposal and is described in this report. The report should be interpreted only with regard to the specific location and materials referenced.

2.2 Site Description

The **Entry Building** is a single-story structure generally used as the aquarium's front lobby, ticket office, security office, and some administration offices. The building totals approximately 3,700 square feet (SF) and is generally constructed of a concrete sub floor with vinyl floor tile, carpet, ceramic tile, and pavers. Other interior finishes include concrete masonry unit (CMU) block walls, a drywall system, stucco, and suspended ceiling tile system. The exterior is finished with stucco. The HVAC system was located in the mechanical rooms. Based on historic drawings, it is S&ME's understanding that this building was constructed in 2002. The roof was not included as part of this assessment, but access is available via an interior fixed ladder in the mechanical room.

The **Main Exhibit Building, East Wing,** is a three-story structure generally used as aquarium exhibits, administration offices, classrooms, an auditorium, staff offices, mechanical rooms, aquatic husbandries, a gift shop, a water quality lab, and concessions. The first floor is approximately 30,000 SF, the second floor is approximately 30,000 SF, and the third floor is approximately 2,100 SF. Based off historic drawings, it is S&ME's understanding that portions of the first and second stories were constructed in 1973. A large-scale renovation was performed in 2002 with new additions and renovations to the first and second floor. The third story was also constructed in 2002. The Main Exhibit Building, East Wing is generally constructed of a concrete sub floor, with vinyl flooring, carpet, ceramic tile, and epoxy coatings. Other finishes include drywall systems, CMU block walls, stucco, and suspended ceiling tiles. The roof decking is concrete. The exterior is finished with stucco. The HVAC systems and boiler were located in the mechanical rooms. The roofings was not included as part of this assessment, but access is available from the third floor.

The **Generator Building** is an elevated single-story structure containing two diesel fueled generators. The building totals approximately 500 SF and is constructed of a concrete subfloor concrete block walls and a drywall ceiling. The roof was not included as part of this assessment, and a fixed access point was not observed.

3.0 Assessment Methods

3.1 Asbestos Sampling and Analysis

A visual assessment of the referenced structures was performed to determine the HAs of suspect ACMs. Based on EPA definitions used in the Asbestos Hazard Emergency Response Act (AHERA), 40 CFR 763, a HA of asbestos-suspect building material has the same color and texture and is thought to be installed within the same timeframe. S&ME assessed the buildings for suspect ACMs, including thermal system insulation (TSI), surfacing materials, and miscellaneous materials. S&ME collected representative samples of asbestos-suspect building materials from each HA in accordance with the EPA's AHERA protocol and applicable State regulations. Because the buildings will be renovated, S&ME incorporated the National Emissions for Hazardous Air Pollutants (NESHAP) regulatory requirements into the sampling scheme which included suspect exterior building components, with the exception of the roof (at the owner's request).

Information regarding the bulk samples of each HA was collected, recorded on a chain of custody record, and submitted to Eurofins-CEI asbestos laboratory, located in Cary, North Carolina for analysis by Polarized Light Microscopy (PLM), coupled with dispersion staining in general accordance with the EPA 600/R-93/116 Method. Laboratories used for sample analysis are accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards and Technology (NIST). The laboratory

analysis reports the specific type of asbestos mineral identified (if any) and the percentage of asbestos present in each sample.

Although PLM (Method EPA 600/R-93/116) is the recommended method for analysis of bulk material samples for asbestos fibers under the EPA AHERA, there have been reports that this method alone may not identify asbestos when fiber sizes are extremely small or if they are bound in a resinous material. Typical examples of these materials include, but are not limited to; floor tile, flooring and associated mastics, vinyl sheet flooring (linoleum), and mastic/adhesive, roof shingles, asphaltic roof materials, glazing, caulking, cove base mastic and other construction mastics/adhesives and cove base mastic. Currently, reanalysis by Transmission Electron Microscopy (TEM) to verify results of less than one percent or "None Detected" for these materials is recommended by EPA but not currently required in North Carolina. TEM analysis has not been performed as a part of this survey effort.

Suspect ACMs were assessed based on the observed condition (good, fair, or poor) and potential for disturbance due to the scheduled renovation. Suspect ACMs were also categorized based on the EPA's NESHAP regulation categories. Friable ACM is classified as an ACM that can be crumbled to a powder by moderate hand pressure. Non-friable ACM is classified as either Category I Non-friable ACM or Category II Non-friable ACM. Category I and Category II Non-friable ACM are distinguished from each other by their fiber release potential when damaged. Generally, Category I Non-friable ACM, which includes by definition intact ACM roofing materials, gaskets, packing, and resilient floor coverings, is less likely to become friable and release fibers in a damaged state. Category II Non-friable ACM includes all other non-friable ACM excluding Category I that have a high probability of being rendered friable during removal activities or demolition. All Friable ACM, Category I Non-friable ACM that has become friable, Category I Non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or Category II Non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations are considered to be a Regulated Asbestos-Containing Material (RACM). The NESHAP category for each identified ACM is provided in **Table 4-1**. Building materials that were not sampled due to the potential of voiding a warranty were presumed to be an asbestos containment material.

3.2 Sampling and Analysis – Lead Paint and Ceramic Tile Glaze

A visual assessment of the structure was performed to identify combinations of paint suspected of containing lead, based on paint color, building component, and substrate. The EPA defines LBP as paint having a lead content greater than or equal to 0.5 weight percent using laboratory analysis. Paint containing detectable lead levels but less than less than 0.5 weight percent using laboratory analysis is considered LCP and is regulated by OSHA. OSHA does not recognize a threshold level of lead in paint, only the airborne concentration of lead a worker is exposed to when disturbing paint or painted materials. The OSHA regulation does not stipulate a minimum lead content so the presence of any amount of lead, even lead at levels below the detection limit, may cause exposures to lead that will require compliance with the lead regulations. Due to the date of construction, S&ME assumes lead-containing paint will be present in all coatings/paint applied to building components associated with the renovation project. This includes, but is not limited to, walls, doors, ceilings, floors, ceramic tile, piping, windows, and other painted surfaces.

Paint (chip) samples were collected from representative interior and exterior painted components associated with the referenced buildings by physically removing a small portion (approximately two square inches) from the substrate using a cutting or coring tool. Each sample was placed into a sealed and labeled container, and sample

locations and descriptions were recorded. The paint chip samples were submitted to Eurofins-CEI, located in Cary, North Carolina, a National Lead Laboratory Accreditation Program accredited laboratory, for analysis.

3.3 Sampling and Analysis – Polychlorinated Biphenyls (PCBs)

3.3.1 Lamp Ballast

S&ME observed and documented the location of lamp ballast associated with fluorescent lamp fixtures in the structures at the Fort Fisher Aquarium for the presence of potential PCB containing ballast. PCBs are regulated by the EPA under 40 CFR 761, TSCA. The identification of these materials will determine proper handling and disposal of identified PCB containing sources. Sampling or testing of suspected PCB containing lamp ballasts was not performed as part of this screening.

3.3.2 Caulk

S&ME performed a visual assessment of readily accessible caulk that may contain PCBs at concentrations greater than 50 parts per million (ppm). The visual assessment included evaluation of the condition of the caulk, i.e., peeling, cracking, flaking, brittleness. Bulk samples of representative caulk were collected. Samples were then shipped to Pace Analytical Services in Huntersville, North Carolina for analysis of PCBs by EPA Method SW-846 8082. Samples of PCB caulking were not collected in the Entry Building, based on its 2002 construction date.

3.4 Mercury

A visual assessment was conducted by observing thermostats, fluorescent lamps, and any apparent items that may contain mercury. Mercury is designated as a Universal Waste by the EPA under 40 CFR 273, the Resource Conservation and Recovery Act (RCRA) and requires proper handling and disposal of mercury containing items. The identification of these materials will aid in the prevention of occupational exposures and/or environmental releases of mercury and provide information to facilitate proper disposal of mercury containing items in accordance with EPA Universal Waste requirements. Sampling or testing of mercury sources was not performed as part of this screening; however, S&ME visually assessed thermostats and other potential mercury components.

3.5 Refrigerants (Chlorofluorohydrocarbons)

A visual assessment was performed for the presence of cooling or refrigeration equipment that may contain chlorofluorohydrocarbons (CFCs). The use, management, and release of ozone depleting substances, such as CFCs, used as refrigerants are regulated under the Clean Air Act (CAA) of 1990. Sampling or testing was not performed as part of this screening.

4.0 Results

4.1 Asbestos Sampling Results

Based on the assessment, the materials listed in **Table 4-1** are identified as ACM.

Table 4-1 Identified Asbestos-Containing Materials

HA	Material Description	[A]Location	[B]Quantity	[C]Type	[D]Cond/PD	Percent & Type Asbestos
Entry Building						
L[E]	Fire Doors	Rooms: 109, 108, 107, 106, and 103A	5 Doors	Misc.	Good/ High	Assumed
Main Exhibit Building, East Wing 1st-3rd Floors						
AF[E]	Fire Doors	All Interior Doors	125 Doors	Misc.	Good/ High	Assumed
CG	Black Mastic on 4" Chilled Water Line Fiberglass Insulation (Under white canvas)	Chilled Water Lines (Supply and Returns) located in Oceans Classroom Mechanical Room and Storage Room, Hallway Outside Oceans Classroom, Auditorium, and Auditorium Screen Room. The pipes transition to a larger diameter line in the Mechanical Chase.	200 LF	Misc.	Good/ High	5% Chrysotile
CN	Black Mastic on 6-8" Chilled Water Line Fiberglass Insulation and under Hard Fittings (Under white canvas)	Mechanical Room (MR) 131, Mechanical Chases between MR 131 and Husbandry 231, Husbandry 231, Exhibit Room 219, Mechanical Chase located South of Screen Room, Mechanical Room Under Auditorium	600 LF	Misc.	Good/ High	10% Chrysotile

HA = Homogeneous Area SF = Square feet LF = Linear feet CF = Cubic Feet

[A] Refer to Appendix II for sample locations.

[B] Quantities are approximate and should not be used for cost estimates or bidding purposes.

[C] Type: Misc. = Miscellaneous Sur = Surfacing TSI = Thermal System Insulation

[D] Cond = Condition: Good, Fair or Poor PD = Accessible during renovation or demolition, Potential for Disturbance; Low/High

[E] Material is assumed to be asbestos containing material.

Materials presumed to contain asbestos were not sampled but must be treated as asbestos unless sampling indicates the materials are not ACM. The materials are listed in **Table 4-1**.

The summary of bulk asbestos results is provided in **Appendix I**. Figures showing the bulk sample locations are provided in **Appendix IV**. Representative photographs of ACMs are provided in **Appendix VII**. A copy of the asbestos inspector's license/accreditation is provided in **Appendix XI**. The laboratory reports and chain of custody records are provided in **Appendix XII**.

4.2 Lead

4.2.1 Laboratory Analysis

Based on the assessment and testing performed of the suspect paints in the buildings, 45 of 76 samples were reported with detectable levels of lead. Five (5) sample locations met or exceeded the EPA definition of LBP (0.5% by weight) and are bolded text in **Table 4-2**.

Table 4-2: Identified Lead Containing Paint

Sample Number	Substrate	Component	Color	Sample Location	Concentration (% by weight)
Entry Building					
PB-10	Concrete	Ceiling	Dark Blue	Lobby	0.0041
Main Exhibit Building, East Wing 1st-3rd Floors					
PB-19	Concrete	Ceiling	Black	Center of 2nd Floor Exhibit Area, on Concrete Beam	0.0035
PB-29	Metal/Steel	Handrails	Black	Auditorium	0.0052
PB-39	CMU Block	Wall	White	2nd Floor, Operations Hallway (Also in Rooms of Hallway)	0.0091
PB-42	Metal	Doors and Frames	Light Blue, Red, White	2nd Floor Operations Hallway Staff Restroom Door Frame	0.017
PB-57	Drywall	Wall	Dark Blue	Hallway Outside Auditorium	0.0047

Sample Number	Substrate	Component	Color	Sample Location	Concentration (% by weight)
				(Also on CMU Block Wall)	

OSHA does not stipulate a minimum lead content so the presence of any amount of lead is regulated within the standard. OSHA considers paint a *potential* hazard if it contains any amount of lead by dry weight when analyzed using ASTM D335-85A "Standard Method to Test for Low Concentrations of Lead in Paint by Atomic Absorption Spectroscopy (AAS)". This standard applies to areas that may be disturbed during the demolition activities.

Workers scheduled to perform the demolition activities will disturb the lead-containing paint and will need to be trained on the hazards of lead per the requirements outlined in 29 CFR 1926.62. This training includes a detailed description of the hazards to the developing fetus in pregnant women exposed to lead and the importance of personal hygiene, including decontamination procedures for controlling the spread of the lead hazard. The workers are also required to be trained according to 29 CFR 1910.1200 (Hazard Communication). All personnel working with lead are to be medically qualified as required by 29 CFR 1926.62, having completed, and passed the physical examination specified therein.

OSHA also requires employers to perform an initial exposure assessment of their workers to assess their exposure to lead-containing dust. Workers are to be protected during the exposure assessment period and, if high levels of lead are found in the air, they must continue to wear personal protective equipment and use engineering controls to reduce the airborne lead levels. The employer must demonstrate that worker exposure is below the 30 $\mu g/m^3$ eight-hour time weighted average action level to eliminate further exposure assessment of a specific task.

The summary of lead sample results is provided in **Appendix II**. Figures showing the lead sample locations are provided in **Appendix V**. Representative photographs of lead containing paint are provided in **Appendix VII**. The laboratory reports and chain of custody records are provided in **Appendix XIII**.

4.3 PCB Sampling Results

4.3.1 Lamp Ballast

Fluorescent and/or high intensity light ballasts were identified on the interior and exterior of the buildings. All ballasts should be inspected prior to disposal/recycling to verify the presence/absence of PCBs. Ballasts should be assumed to be PCB-containing unless specified by the manufacturer's label as containing "No PCBs." No sampling or testing was performed as part of this visual assessment. The approximate quantity of light ballasts was identified in each building:

- Entry Building (40)
- Main Exhibit Building, East Wing (250)
- Generator Building (4)

4.3.2 *Caulk and Sealants*

Three bulk samples of exterior caulks were collected from the buildings to determine the potential presence of PCBs. The laboratory results for the PCB bulk samples are summarized in **Table 4-2**.

Table 4-2: Summary of PCB Sample Results

Sample ID No.	Description	Location	PCB Concentration (Parts Per Million)	Approximate Quantity
PCB-1	Gray/Tan Caulk	Generator Building- Door and window/vent caulk	ND	N/A
PCB-2	Gray/Tan Caulk	Main Exhibit Building, East Wing- Exterior door, windows, and expansion caulk of older section.	ND	N/A
PCB-3	Tan Caulk	Main Exhibit Building, East Wing- Between stucco panels of older section.	ND	N/A

The summary of PCB caulk sample results is provided in **Appendix III**. Figures showing the PCB caulk sample locations are provided in **Appendix VI**. Representative photograph of PCB caulk sampling is provided in **Appendix IX**. The laboratory reports and chain of custody records are provided in **Appendix XIV**.

4.4 Mercury

Fluorescent lamp tubes and/or high intensity light bulbs were identified in the buildings. Standard fluorescent light bulbs range from 8 to 14 milligrams of mercury. Note, light tubes with green tips do contain between 3.5-4 milligrams of mercury. The approximate quantity of light bulbs was identified in each building:

- Entry Building (60)
- Main Exhibit Building, East Wing (635)
- Generator Building (8)

Four (4) older thermostats were observed in the interior of the Main Exhibit Building, East wing. The covers hard to dismantle, so they were not removed.

4.5 Refrigerants (Chlorofluorohydrocarbons)

Five compressors were observed on the exterior of the Main Exhibit Building, East Wing. Two water fountains were also observed in the Main Exhibit Building, East Wing. The refrigerant type was not confirmed on the exterior of the units. If the compressors or water fountains contain R-22, a hydrochlorofluorocarbon (HCFC) refrigerant, the gas should be captured from the unit prior to disposal or disconnecting close-loop pressurized lines. No sampling or testing was performed as part of this visual assessment.

4.6 Other Hazardous and Universal Wastes

S&ME made observations for Universal Wastes or other potentially hazardous waste within the buildings at the time of the assessment. Universal waste are common wastes with hazardous properties that must be managed and have landfill disposal restrictions. Examples of Universal Waste include electronic devices, batteries, and mercury containing equipment or lighting. Handling, transportation, and disposal is simplified under the Universal Waste regulation in the California Code of Regulations Title 22, Division 4.5 Chapter 11. An inventory and estimated quantity of other hazardous materials and/or Universal Wastes is provided below:

Hazardous Materials	Material Descriptions	Material Locations	Estimated Quantity
Lead Acid Battery	Exit Signs	Entry Building	4
		Main Exhibit Building, East Wing	15
Lead Acid Battery	Generator Batteries	Generator Building	2
Petroleum (oil, coolant, and diesel)	Generators	Generator Building	2 Generators
Petroleum	Coolant	Generator Building	3, 5-gallon containers
Aquarium Operation Chemicals	Chlorine Solution	Husbandrys	55-gallon drum
Aquarium Operation Chemicals	Sodium Thiosulfate Solution	Husbandry 231	55-gallon drum
Aquarium Operation Chemicals	Muriatic Acid	Mechanical Room 131	1-gallon container
Aquarium Operation Chemicals	Citric Acid	Mechanical Room 131	2, 5-gallon containers
Biocide	BromMax 7.1	Main Exhibit Building, East Wing (Mechanical Room 131)	2, 5-gallon containers
Petroleum	Oil	Main Exhibit Building, East Wing (Mechanical Room 131)	2, 5-gallon containers
Alcohol	Hand Sanitizer	Main Exhibit Building, East Wing (Mechanical Room 131)	55-gallon drum
Compressed Gas	Oxygen & nitrogen cylinders	3rd Floor- Room 304 and 305 1st Floor- Husbandry 134	30 Cylinders, various sizes

Representative photographs of miscellaneous hazardous materials are provided in **Appendix X**.

5.0 Conclusion and Recommendations

5.1 Asbestos

ACM was identified in areas to be affected by the renovation. The fire doors in the building were not sampled due to the potential of voiding warranties, and compromising their fire ratings. S&ME recommends an NC asbestos accredited inspector to assess the doors prior to removal.

Due to the planned renovation, we recommend proper removal and disposal of the ACM by a licensed and accredited asbestos abatement contractor, prior to activities that may disturb an ACM. State and Federal regulations should be carefully considered in order to verify compliance before any actions are initiated that may disturb an ACM. If additional suspect ACMs not included in this report are discovered and will be disturbed by the demolition activities, bulk samples must be collected by an accredited asbestos inspector and analyzed for asbestos content, prior to disturbance of the suspect material(s).

Removal of Category I Non-friable ACM may not be required by state and federal regulations if the probability is low it will be rendered friable (or otherwise regulated) during demolition. Likewise, removal of Category II Non-friable ACM may not be required if the probability is low that the material will become crumbled, pulverized, or reduced to powder during demolition. The demolition/renovation procedures must follow NESHAP and NC-HHCU regulations and the debris contaminated with asbestos must be disposed of as regulated asbestos containing waste. Therefore, we recommend the removal of all ACM in areas affected by the renovation and/or demolition prior to renovation and/or demolition.

5.2 Lead

Lead containing paint (LCP) was identified in areas that will be impacted by the demolition. If these materials are not removed as whole components and scheduled to be disturbed, the OSHA Lead in Construction regulation requires specific work practice procedures to minimize potential worker exposures.

Demolition activities (e.g., component removal, demolition, sanding, grinding, burning, paint preparation, paint disturbance) involving LBP and LCP are covered under the OSHA Construction Industry Standard for Lead (Title 29 of the Federal Code of Regulations, Part 1926.62). OSHA compliance may require worker training, medical evaluations, personnel protective equipment, exposure assessment, air monitoring, hygiene facilities and practices, and health and safety plans. The quantities reported by laboratory analysis may be useful in determining the relative risk associated with various demolition tasks. For example, disturbances to paints with low lead levels may be less likely to result in airborne lead exposures in excess of the OSHA Action Level.

Lead containing paint or lead-based paint should not be removed from materials or components unless necessary to reuse the material or component. The identified materials coated with lead-containing paint or lead-based paint can remain in place during demolition.

The OSHA Lead in Construction Standard stipulates a maximum worker exposure limit, referred to as the Permissible Exposure Limit (PEL), of 50 micrograms per cubic meter ($\mu g/m^3$) over an eight-hour time weighted average (TWA). The standard requires monitoring the lead level in the worker's blood (workers blood lead level) when exposed to airborne lead at or above the Action Level of 30 $\mu g/m^3$ over an eight-hour TWA. OSHA requires the employer to make an initial determination of whether an employee's exposure to lead exceeds the Action

Level over an eight-hour TWA. Monitoring at the breathing zone of the employee is required unless the employer has objective data demonstrating the employees will not be exposed to lead in excess of the Action Level.

North Carolina solid waste disposal regulations do not stipulate disposal requirements for components coated with lead-containing paint or lead-based paint, meaning the construction debris can be discarded in a construction and demolition landfill. If the paint is removed from the substrate/component, samples must be collected and tested using the Toxicity Characteristic Leaching Procedure (TCLP) to determine the waste stream.

5.3 Polychlorinated Biphenyls (PCBs)

PCBs are regulated by the EPA under 40 CFR 761. The production of PCBs has been banned since 1979 and may be present in electrical capacitors, sealants, hydraulic oils, and transformers commonly found in buildings. Materials with greater than 50 ppm PCB content are considered PCB contaminated waste while materials with greater than 500 ppm PCB are considered PCB containing.

5.3.1 Lamp Ballast

The EPA requires proper disposal of equipment containing PCBs per 40 CFR 761 subpart D of the TSCA. Light ballasts encountered that do not exhibit "No PCBs" labeling and were installed prior to 1998, must also be recycled, incinerated, or disposed of in an EPA TSCA-approved landfill.

5.3.2 Caulk and Sealants

TSCA defines PCB bulk product waste as waste derived from manufactured products containing PCBs in a non-liquid state in which the concentration at the time of designation for disposal is greater than or equal to 50 parts per million (ppm), which includes, but is not limited to, caulking and sealants. It should be noted that S&ME did not assess other building material surfaces during this assessment. Materials not tested should be tested prior to disposal.

According to TSCA, the materials sampled during this assessment were reported by the laboratory as none detect and are not categorized as PCB bulk product waste material and may be discarded as normal construction debris.

5.4 Mercury

The fluorescent lamp tubes located in the referenced structure's light fixtures inherently contain low levels of mercury and must be recycled or properly disposed as mercury sources. High Intensity Discharge (HID) Bulbs that may contain mercury were observed. Additionally, older HVAC thermostats were observed that may contain mercury. Mercury is designated as a Universal Waste by the EPA under 40 CFR 273, from the Resource Conservation and Recovery Act (RCRA). If the light tubes, bulbs, or thermostats will not be reused, S&ME recommends the light tubes and bulbs be removed and properly recycled or disposed of prior to demolition activities in accordance with federal, state, and local regulations.

If any mercury sources that were not previously identified are discovered during destructive work activities, we recommend removal, handling and disposal as a Universal Waste.

5.5 Refrigerants (Chlorofluorohydrocarbons)

The use, management, and release of ozone depleting substances used as refrigerants are regulated under the Clean Air Act (CAA) of 1990. Section 608 of the CAA forbids the venting of regulated refrigerants such as CFC, HCFC, or blended refrigerants. All regulated refrigerants associated with the buildings and equipment must be recovered for reuse or proper disposal prior to severing pressurized systems or disposal of equipment.

5.6 Other Hazardous Materials

Prior to demolition of the structures, Universal Wastes and other identified potentially hazardous waste must be removed from the structure. Licensed electrical and mechanical contractors should be used to remove the identified equipment where necessary. Universal Waste and other hazardous waste should be removed prior to demolition and disposed of in an EPA TSCA-approved landfill.

6.0 Assumptions and Limitations

This report is provided for the sole use of the Client. Use of this report by any other parties will be at such party's sole risk, and S&ME disclaims liability for any such use or reliance by third parties. The results presented in this report are indicative of conditions only during the time of the sampling period and of the specific areas referenced. Under no circumstances is this report to be used as a bidding document, or as a project design or specification.

S&ME performed the services in accordance with generally accepted practices of reputable environmental consultants undertaking similar studies at the same time and in the same geographical area. S&ME has endeavored to meet this standard of care. No other warranty, expressed or implied, is intended or made with respect to this report or S&ME's services. Users of this report should consider the scope and limitations related to these services when developing opinions as to risks associated with the site.

The possibility exists that suspect materials were undetected in inaccessible or concealed areas such as under carpeting or multiple flooring layers, and inside pipe chases or wall voids. If additional suspect materials are discovered during the planned destructive activities, bulk samples must be collected by a North Carolina accredited asbestos inspector and analyzed for asbestos content.

The findings of the lead paint assessment were based largely on visual observations of the primary painted surfaces. The findings do not warrant that all painted surfaces containing lead have been identified; different underlying painted surfaces which contain lead could exist under similar top layers. Also, apparent similarly painted surfaces may vary in actual lead content.

This assessment was not performed to satisfy the requirements of Housing and Urban Development (HUD) regulations for lead hazard evaluation and control in federally associated housing. Additionally, this assessment was not a risk assessment or inspection for child occupied buildings performed by Environmental Protection Agency (EPA) accredited lead inspectors or risk assessors.

S&ME tried to identify hazardous materials or potentially hazardous wastes that should be removed prior to renovation or demolition and disposed of in accordance with state and federal regulations. Other hazardous materials or potentially hazardous waste may be present and identified during renovation or demolition. If

additional hazardous materials or potentially hazardous wastes are identified, they should be disposed of in accordance with state and federal regulations pertaining to Universal Waste and hazardous waste.

Appendices

Appendix I – **Summary of Asbestos Sampling**

Entry Building

SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	Entry Building: Single story concrete structure. Interior includes concrete masonry unit block walls, partitioned drywalls, and concrete roof decking. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 1-30-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
A	**Type:**	Carpet Adhesive	Rm. 101, Rm. 103, Rm. 103A, Office,	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Blue/tan							
	Size:								
	Other:	Under Dark Blue carpet							
B	**Type:**	CMU Wall Block Coating	Rm. 101, Rm. 103, Rm. 103A, Rm. 107,Rm. 108, Rm. 108 Restroom	3,000	SF	II	Sur	Good	High
	Texture:	Yes							
	Color:	Painted							
	Size:								
	Other:								
C	**Type:**	Textured Ceiling Tile	Rm. 101, Rm. 103, Rm. 103A	N/A	SF	F	Misc	Good	High
	Texture:	Heavy texture							
	Color:	White							
	Size:	2'x2'							
	Other:								

Sample Information				
Sample Number	**Building Floor**	**[6]Location**	**Layer**	**Percent / Type Asbestos**
A-1	1st	Members Admission/Security Office (Rm. 101)		ND
A-2	1st	Admission Office Closet (Rm. 103A)		ND
B-1	1st	Members Admission/Security Office (Rm. 101)		ND
B-2	1st	Admission Office (Rm. 103)		ND
B-3	1st	Custodial Room (Rm. 107)		ND
B-4	1st	Exterior Men's restroom		ND
B-5	1st	Exterior women's restroom		ND
C-1	1st	Members Admission/Security Office (Rm. 101)		ND
C-2	1st	Admission Office Closet (Rm. 103A)		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

Quantities are approximate and should not be used for cost estimates or bidding purposes.

ND = None Detected NA = Not Applicable HA = Homogenous Area

[1]**Quantity**: SF = Square Feet LF = Linear Feet CF = Cubic Feet

[2]**Category**: F = Friable I = Category I, Non-Friable II = Category II, Non-Friable

[3]**Type**: Misc = Miscellaneous Sur = Surfacing TSI = Thermal System Insulation

[4]**Condition**: Good, Fair, or Poor

[5]**PFD:** Potential for Disturbance due to Renovation or Demolition: Low or High

[6]**Sample Location**: Refer to attached floor plan(s) / field drawing(s) for specific sample locations.

SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	Entry Building: Single story concrete structure. Interior includes concrete masonry unit block walls, partitioned drywalls, and concrete roof decking. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 1-30-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
D	**Type:**	Black cove base and mastic	Rm. 101, Rm. 103, Rm. 103A, Rm. 108, Office	N/A	LF	II	Misc	Good	High
	Texture:								
	Color:	Tan mastic							
	Size:								
	Other:								
E	**Type:**	Interior and Exterior caulk	Windows/doors- Rm. 101, Rm.103,same as exterior	N/A	LF	II	Misc	Good	High
	Texture:								
	Color:	White/painted							
	Size:								
	Other:								
F	**Type:**	Drywall system	Lobby, Rm. 103, Rm. 103A, Rm.107, Rm. 106, Rm. 108, Rm. 108 Restroom, Rm. 109, Office	2,200	SF	F	Sur / Misc	Good	High
	Texture:	Smooth							
	Color:								
	Size:								
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
D-1	1st	Admission Office Closet (Rm. 103A)	Cove Base	ND
			Mastic	ND
D-2	1st	Members Admission/Security Office (Rm. 101)	Cove Base	ND
			Mastic	ND
E-1	1st	Lobby at Entrance to Otter Exhibit		ND
E-2	1st	Lobby at Entrance to Front Vestibule		ND
F-1	1st	Admission Office Closet (Rm. 103A)	Drywall/JC	ND
F-2	1st	Custodial Room (Rm. 107)	Drywall/JC	ND
F-3	1st	Storage Room (Rm.109)	Drywall/JC	ND
F-4	1st	Mech. Room (Rm. 106) just joint compound	JC	ND
F-5	1st	Mech. Room (Rm. 106) just joint compound	JC	ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

Quantities are approximate and should not be used for cost estimates or bidding purposes.

	ND = None Detected	NA = Not Applicable	HA = Homogenous Area
[1]**Quantity**:	SF = Square Feet	LF = Linear Feet	CF = Cubic Feet
[2]**Category**:	F = Friable	I = Category I, Non-Friable	II = Category II, Non-Friable
[3]**Type**:	Misc = Miscellaneous	Sur = Surfacing	TSI = Thermal System Insulation
[4]**Condition**:	Good, Fair, or Poor		
[5]**PFD:**	Potential for Disturbance due to Renovation or Demolition: Low or High		
[6]**Sample Location**:	Refer to attached floor plan(s) / field drawing(s) for specific sample locations.		

SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	Entry Building: Single story concrete structure. Interior includes concrete masonry unit block walls, partitioned drywalls, and concrete roof decking. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 1-30-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
G	**Type:**	Mastic on HVAC Components	Rm. 106	N/A	LF	II	Misc	Good	High
	Texture:								
	Color:	Gray							
	Size:								
	Other:								
H	**Type:**	Textured Ceiling Tile	Rm. 108, Lobby, Rm. 108 Restroom, Office	N/A	SF	F	Misc	Good	High
	Texture:	Yes							
	Color:	Cream							
	Size:	2'x2'							
	Other:								
I	**Type:**	Floor Tile and Mastic	Rm. 108, under carpet in office	N/A	SF	I	Misc	Good	High
	Texture:	Smooth							
	Color:	Cream							
	Size:	12"							
	Other:	Tan mastic							

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
G-1	1st	Mech. Room (Rm. 106)		ND
G-2	1st	Mech. Room (Rm. 106)		ND
H-1	1st	First Aid Room (Rm. 108)		ND
H-2	1st	Lobby, In front of Rm. 107		ND
I-1	1st	First Aid Room (Rm. 108)	Floor Tile	ND
			Mastic	ND
I-2	1st	First Aid Room (Rm. 108)	Floor Tile	ND
			Mastic	ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

Quantities are approximate and should not be used for cost estimates or bidding purposes.

ND = None Detected NA = Not Applicable HA = Homogenous Area

[1]**Quantity**: SF = Square Feet LF = Linear Feet CF = Cubic Feet

[2]**Category**: F = Friable I = Category I, Non-Friable II = Category II, Non-Friable

[3]**Type**: Misc = Miscellaneous Sur = Surfacing TSI = Thermal System Insulation

[4]**Condition**: Good, Fair, or Poor

[5]**PFD:** Potential for Disturbance due to Renovation or Demolition: Low or High

[6]**Sample Location**: Refer to attached floor plan(s) / field drawing(s) for specific sample locations.

SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	Entry Building: Single story concrete structure. Interior includes concrete masonry unit block walls, partitioned drywalls, and concrete roof decking. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 1-30-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
J	**Type:**	Ceramic Tile Grout	Rm. 108 Restroom- floor and wall	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Cream							
	Size:								
	Other:								
K	**Type:**	Fire Caulk	Penetrations through walls above ceiling grid, and in mechanicals room, storage room	N/A	LF	II	Misc	Good	High
	Texture:								
	Color:	Red							
	Size:								
	Other:								
L	**Type:**	Fire Doors	Rm. 109, Rm. 108, Rm.107,Rm. 103A, Room 106	5	Doors*	II	Misc	Good	High
	Texture:								
	Color:								
	Size:								
	Other:								

Sample Information				
Sample Number	**Building Floor**	**[6]Location**	**Layer**	**Percent / Type Asbestos**
J-1	1st	First Aid Bathroom (Rm.110) Wall		ND
J-2	1st	First Aid Bathroom (Rm.110) Wall		ND
K-1	1st	Custodial Room (Rm. 107)		ND
K-2	1st	Mech. Room (Rm. 106)		ND
		Not sampled, could void warranty		Assumed

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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[3]**Type**:	Misc = Miscellaneous	Sur = Surfacing	TSI = Thermal System Insulation
[4]**Condition**:	Good, Fair, or Poor		
[5]**PFD:**	Potential for Disturbance due to Renovation or Demolition: Low or High		
[6]**Sample Location**:	Refer to attached floor plan(s) / field drawing(s) for specific sample locations.		

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Date of Assessment:	1-29-24 to 1-30-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
M	**Type:**	Interior and exterior wall texture	Lobby, Exterior	3,600	SF	F	Sur	Good	High
	Texture:								
	Color:	Painted-white/tan							
	Size:								
	Other:	Stucco							
N	**Type:**	Ceramic Wall Tile Grout	Exterior Restrooms, 3rd floor bathrooms	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	White							
	Size:								
	Other:								
O	**Type:**	Ceramic Floor Tile Grout	Exterior Restrooms, 3rd floor restrooms	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Gray							
	Size:								
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
M-1	1st	Interior, East wall		ND
M-2	1st	Interior, West wall		ND
M-3	1st	Vestibule, north wall		ND
M-4	1st	Exterior, Near men's restroom door		ND
M-5	1st	Exterior, Nw corner		ND
N-1	1st	Exterior men's restroom (Rm.104)		ND
N-2	1st	Exterior men's restroom (Rm.104)		ND
O-1	1st	Exterior men's restroom (Rm.104)		ND
O-2	1st	Exterior men's restroom (Rm.104)		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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[3]**Type**: Misc = Miscellaneous Sur = Surfacing TSI = Thermal System Insulation

[4]**Condition**: Good, Fair, or Poor

[5]**PFD:** Potential for Disturbance due to Renovation or Demolition: Low or High

[6]**Sample Location**: Refer to attached floor plan(s) / field drawing(s) for specific sample locations.

SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	Entry Building: Single story concrete structure. Interior includes concrete masonry unit block walls, partitioned drywalls, and concrete roof decking. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 1-30-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
P	**Type:**	Ceiling Tile	Exterior Restrooms	N/A	SF	F	Misc	Good	High
	Texture:								
	Color:	White							
	Size:	2'x2'							
	Other:	Pinholes							
Q	**Type:**	Omit Homogenous Area							
	Texture:								
	Color:								
	Size:								
	Other:								
R	**Type:**	Ceiling tile	Entrance to Otter exhibit	N/A	SF	F	Misc	Good	High
	Texture:								
	Color:	White							
	Size:	2'x2'							
	Other:								

Sample Information				
Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
P-1	1st	Exterior women restroom (Rm.105)		ND
P-2	1st	Exterior men's restroom (Rm.104)		ND
R-1	1st	Entrance to otter exhibit		ND
R-2	1st	Entrance to otter exhibit		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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[3]**Type**: Misc = Miscellaneous Sur = Surfacing TSI = Thermal System Insulation

[4]**Condition**: Good, Fair, or Poor

[5]**PFD:** Potential for Disturbance due to Renovation or Demolition: Low or High

[6]**Sample Location**: Refer to attached floor plan(s) / field drawing(s) for specific sample locations.

Main Exhibit Building, East Wing

SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	East Wing Building (1st-3rd Floors): Three story structure, constructed of concrete sub floor, concrete roof deck, concrete block walls, drywall partitioned walls. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 2-8-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
AA	**Type:**	Carpet Adhesive	1st-2nd Floor Exhibit Areas, Rm. 204, same adhesive under gray carpet in directors room	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Blue							
	Size:								
	Other:	Blue/ dark blue carpet							
AB	**Type:**	Ceramic floor tile grout	1st-2nd Floors, Exhibit Areas	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Gray							
	Size:								
	Other:								
AC	**Type:**	Ceramic floor tile grout	2nd floor public restrooms	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Gray							
	Size:	4"							
	Other:	Tan,blue, red ceramic floor tile							

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
AA-1	2nd	Vestibule (246)		ND
AA-2	1st	Bottom of 1st floor staircase, Viewing Area (139)		ND
AB-1	2nd	Salt marsh gallery floor		ND
AB-2	1st	Ocean gallery		ND
AC-1	2nd	Men's Restroom	Gray Layer	ND
			White Layer	ND
AC-2	2nd	Women's restroom	Gray Layer	ND
			White Layer	ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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[5]**PFD:** Potential for Disturbance due to Renovation or Demolition: Low or High

[6]**Sample Location**: Refer to attached floor plan(s) / field drawing(s) for specific sample locations.

SUMMARY OF ASBESTOS SAMPLING

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S&ME Project Number:	23060119	**Description of Structure:**	East Wing Building (1st-3rd Floors): Three story structure, constructed of concrete sub floor, concrete roof deck, concrete block walls, drywall partitioned walls. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 2-8-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD	Sample Information: Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
AD	**Type:**	Carpet adhesive	Administrative office Suite, sensory & support classrooms, Animal Bin Room,	N/A	SF	II	Misc	Good	High	AD-1	2nd	Conference room		ND
	Texture:									AD-2	2nd	Rm. 203B		ND
	Color:	Tan adhesive												
	Size:													
	Other:	Green carpet w/brown,blue,white mix												
AE	**Type:**	Floor Tile	Admin. Break room	N/A	SF	I	Misc	Good	High	AE-1	2nd	Breakroom (229)	Floor Tile	ND
	Texture:												Mastic	ND
	Color:	White w/ green specs								AE-2	2nd	Breakroom (229)	Floor Tile	ND
	Size:	12"											Mastic	ND
	Other:													
AF	**Type:**	Fire Doors	All doors			II	Misc	Good	High			Not sampled, because it would void		Assumed
	Texture:			Doors								any warranty		
	Color:	Painted												
	Size:													
	Other:													

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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[3]**Type**:	Misc = Miscellaneous	Sur = Surfacing	TSI = Thermal System Insulation
[4]**Condition**:	Good, Fair, or Poor		
[5]**PFD:**	Potential for Disturbance due to Renovation or Demolition: Low or High		
[6]**Sample Location**:	Refer to attached floor plan(s) / field drawing(s) for specific sample locations.		

SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	East Wing Building (1st-3rd Floors): Three story structure, constructed of concrete sub floor, concrete roof deck, concrete block walls, drywall partitioned walls. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 2-8-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD	Sample Information: Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
AG	**Type:**	Floor tile	2nd Floor E exit hallway, 227 (operations), Rm. 303, storage room 137,	N/A	SF	I	Misc	Good	High	AG-1	2nd	2nd floor, North Exit Hallway	Floor Tile	ND
	Texture:												Mastic	ND
	Color:	White w/ blue specs								AG-2	2nd	Operations (227)	Floor Tile	ND
	Size:	12"											Mastic	ND
	Other:													
AH	**Type:**	Floor Tile	Ocean classrooms,under carpet in corridor	N/A	SF	I	Misc	Good	High	AH-1	2nd	Oceans classroom	Floor Tile	ND
	Texture:												Mastic	ND
	Color:	Blue								AH-2	2nd	Oceans classroom	Floor Tile	ND
	Size:	12"											Mastic	ND
	Other:													
AI	**Type:**	Carpet adhesive	Auditorium	N/A	SF	II	Misc	Good	High	AI-1	2nd	NW entrance		ND
	Texture:									AI-2	1st	SE corner		ND
	Color:	Tan mastic												
	Size:													
	Other:	Multi-color, mostly dark blue/ purple												

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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[3]**Type**:	Misc = Miscellaneous	Sur = Surfacing	TSI = Thermal System Insulation
[4]**Condition**:	Good, Fair, or Poor		
[5]**PFD:**	Potential for Disturbance due to Renovation or Demolition: Low or High		
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SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	East Wing Building (1st-3rd Floors): Three story structure, constructed of concrete sub floor, concrete roof deck, concrete block walls, drywall partitioned walls. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 2-8-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
AJ	**Type:**	Cove base mastic	Exhibit Deign room	N/A	LF	II	Misc	Good	High
	Texture:								
	Color:	Brown, brown mastic							
	Size:	4"							
	Other:								
AK	**Type:**	Floor tile	Break room, offices 234-237	N/A	SF	I	Misc	Good	High
	Texture:								
	Color:	Light blue w/ dark blue specs, tan mastic							
	Size:								
	Other:								
AL	**Type:**	Carpet adhesive	Education offices, Rm. 251 (education office)	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Tan carpet, tan mastic							
	Size:								
	Other:	Carpet tiles							

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
AJ-1	2nd	Exhibit design room		ND
AJ-2	2nd	Exhibit design room		ND
AK-1	2nd	Breakroom, behind refrigerator	Floor Tile	ND
			Mastic	ND
AK-2	2nd	Breakroom, near ice machine	Floor Tile	ND
			Mastic	ND
AK-3	2nd	Room 235	Floor Tile	ND
			Mastic	ND
AL-1	2nd	Back left office		ND
AL-2	2nd	Front computer area		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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Date of Assessment:	1-29-24 to 2-8-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
AM	**Type:**	Carpet adhesive	Exhibit design office,	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Khaki carpet							
	Size:								
	Other:								
AN	**Type:**	Ceramic tile grout	Staff Restrooms (on floors) and shower rooms on 2nd Floor (on floors and walls)	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Gray							
	Size:	2" gray tile							
	Other:								
AO	**Type:**	Omit Homogenous Area							
	Texture:								
	Color:								
	Size:								
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
AM-1	2nd	Exhibit design office		ND
AM-2	2nd	Exhibit design office		ND
AN-1	2nd	Left staff restroom		ND
AN-2	2nd	Right shower		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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[4]**Condition**: Good, Fair, or Poor

[5]**PFD:** Potential for Disturbance due to Renovation or Demolition: Low or High

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SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	East Wing Building (1st-3rd Floors): Three story structure, constructed of concrete sub floor, concrete roof deck, concrete block walls, drywall partitioned walls. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 2-8-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
AP	**Type:**	Rubber flooring	Upstairs salt water Quarentine Room(Husbandry 231)	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Green/tan							
	Size:								
	Other:								
AQ	**Type:**	Floor coating	Upstairs salt water Quarentine room, husbandry 231, maybe under HA: AP and AS as well	<1,000	SF	II	Sur	Fair	High
	Texture:								
	Color:	Light blue/gray							
	Size:								
	Other:								
AR	**Type:**	Coating on floor	Upstairs salt water Quarentine room	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Tan							
	Size:								
	Other:								

Sample Information				
Sample Number	**Building Floor**	**[6]Location**	**Layer**	**Percent / Type Asbestos**
AP-1	2nd	Husbandry 231		ND
AP-2	2nd	Husbandry 231		ND
AQ-1	2nd	Husbandry 231		ND
AQ-2	2nd	Husbandry 231		ND
AQ-3	2nd	Husbandry 231		ND
AR-1	2nd	Husbandry Food prep room		ND
AR-2	2nd	Husbandry Food prep room		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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[2]**Category**:	F = Friable	I = Category I, Non-Friable	II = Category II, Non-Friable
[3]**Type**:	Misc = Miscellaneous	Sur = Surfacing	TSI = Thermal System Insulation
[4]**Condition**:	Good, Fair, or Poor		
[5]**PFD:**	Potential for Disturbance due to Renovation or Demolition: Low or High		
[6]**Sample Location**:	Refer to attached floor plan(s) / field drawing(s) for specific sample locations.		

SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	East Wing Building (1st-3rd Floors): Three story structure, constructed of concrete sub floor, concrete roof deck, concrete block walls, drywall partitioned walls. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 2-8-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
AS	**Type:**	Rubber coating on floor and wall	Husbandry 233, East Stairwell flooring, Room 242 on floors,walls, ceiling	3,000	SF	II	Misc	Good	High
	Texture:								
	Color:	Green							
	Size:								
	Other:								
AT	**Type:**	Vinyl flooring	Upstairs salt water Quarentine Room Office	NA	SF	I	Misc	Good	High
	Texture:								
	Color:	Wood appearance							
	Size:								
	Other:								
AU	**Type:**	Drywall	Walls throughout in New Section	>5,000	SF	II	Sur / Misc	Good	High
	Texture:	No							
	Color:	Painted							
	Size:								
	Other:								

Sample Information				
Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
AS-1	2nd	Husbandry 233		ND
AS-2	2nd	Room 242		ND
AS-3	3rd	Stairwell		ND
AS-4	2nd	Room 242		ND
AS-5	2nd	Stairwell		ND
AT-1	2nd	Corner office- last office	Flooring	ND
			Mastic	ND
AT-2	2nd	Corner office- last office	Flooring	ND
			Mastic	ND
AU-1	2nd	Staff Closet (Rm. 243)	Composite	ND
AU-2	2nd	Room R210	Composite	ND
AU-3	1st	Gift shop office	Composite	ND
AU-4	3rd	Divers storage room (305)	Composite	ND
AU-5	2nd	Business managers room (206)	Composite	ND
AU-6	2nd	Hallway to staff parking lot, on classroom hall	Composite	ND
AU-7	2nd	Mechanical room (239)	Composite	ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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Date of Assessment:	1-29-24 to 2-8-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
AV	**Type:**	Drywall system	Walls throughout in Old Section	>5,000	SF	II	Sur / Misc	Good	High
	Texture:	No							
	Color:	Painted							
	Size:								
	Other:								
AW	**Type:**	CMU block wall coating	Walls throughout in New Section	>5,000	SF	II	Sur	Good	High
	Texture:								
	Color:								
	Size:								
	Other:								
AX	**Type:**	CMU Block Wall Coating	Walls throughout in Old Section	>5,000	SF	II	Sur	Good	High
	Texture:								
	Color:	Gray							
	Size:								
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
AV-1	2nd	Women's restroom (207)	Composite	ND
AV-2	1st	Auditorium	Composite	ND
AV-3	2nd	Staff restroom, left side	Composite	ND
AV-4	2nd	Men's bathroom (208) east SE wall corner	Composite	ND
AV-5	2nd	Right staff bathroom, operations hall	Composite	ND
AV-6	1st	SW Ocean Gallery Exhibit Wall	Composite	ND
AV-7	1st	SW Ocean Gallery Exhibit Wall	Composite	ND
AW-1	1st	Bottom of 1st floor staircase, Viewing area 139		ND
AW-2	3rd	3rd Floor, North Wall		ND
AW-3	3rd	3rd Floor, Stairwell, southwall		ND
AW-4	2nd	Mechanical Room (239)		ND
AW-5	2nd	Husbandry (235)		ND
AW-6	1st	Husbandry (134), East Entrance		ND
AW-7	1st	Viewing Area (139), near staircase		ND
AX-1	2nd	Rm.244 (old exterior or new interior)		ND
AX-2	2nd	Auditorium screen room		ND
AX-3	2nd	Hallway outside classroom area		ND
AX-4	2nd	Hallway outside staff restroom		ND
AX-5	1st	Husbandry (148), East wall		ND
AX-6	1st	Husbandry (134), south wall		ND
AX-7	2nd	Oceans classroom, mechanical closet, east wall		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
AY	**Type:**	Epoxy Flooring	3rd floor-around cape fear shoals tank, 1st floor husbandry room	<1,000	SF	II	Misc	Good	High
	Texture:								
	Color:	Rock appearance							
	Size:								
	Other:								
AZ	**Type:**	Omit Homogenous Area							
	Texture:								
	Color:								
	Size:								
	Other:								
BA	**Type:**	Ceramic floor tile grout	1st floor, elevator lobby lobby-near gift shop	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Gray,4" tan tile							
	Size:								
	Other:								

Sample Information				
Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
AY-1	3rd	Water quality lab	Epoxy Flooring	ND
			Mastic	ND
AY-2	3rd	Entrance to 3rd floor area from elevator lobby	Epoxy Flooring	ND
			Mastic	ND
AY-3	1st	Husbandry (134)	Epoxy Flooring	ND
			Mastic	ND
BA-1	1st	Elevator lobby		ND
BA-2	1st	Elevator lobby		ND

Notes

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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
BB	**Type:**	Ceramic wall tile grout	1st floor bathrooms, near gift shop, wall tile 3rd floor showers	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	White							
	Size:								
	Other:								
BC	**Type:**	Ceramic floor tile grout	1st floor bathrooms near gift shops, 3rd floor bathroom/shower area	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Gray							
	Size:								
	Other:								
BD	**Type:**	Ceramic floor tile	Concession area	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Light tan							
	Size:	12"							
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
BB-1	1st	Women's Restroom		ND
BB-2	1st	Mens Restroom		ND
BC-1	1st	Men's restroom		ND
BC-2	1st	Men's restroom		ND
BD-1	1st	Concession		ND
BD-2	1st	Concession		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
BE	**Type:**	Ceramic floor tile	Concession storage room	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Gray							
	Size:	12"							
	Other:								
BF	**Type:**	Cove base and mastic	1st-2nd floor Exhibit area	N/A	LF	II	Misc	Good	High
	Texture:								
	Color:	Black cove base,tan mastic							
	Size:	3"							
	Other:								
BG	**Type:**	Omit Homogenous Area							
	Texture:								
	Color:								
	Size:								
	Other:								

Sample Information				
Sample Number	**Building Floor**	**[6]Location**	**Layer**	**Percent / Type Asbestos**
BE-1	1st	Storage room		ND
BE-2	1st	Storage room		ND
BF-1	2nd	Saltmarsh gallery, southwall		ND
BF-2	1st	To the right of 1st floor bathroom entrance		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
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Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
BH	**Type:**	Wall board	Rm. 244,257,	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	White, plastic like							
	Size:								
	Other:								
BI	**Type:**	Wall board	Rm. 244,257,	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Painted							
	Size:								
	Other:	Concrete like							
BJ	**Type:**	Ceiling tile	2nd floor ne main Hallway around Shadows on the sand tank, rms. R210, R211 classrooms, oceans classroom, gift shop office, teaching room corridor	N/A	SF	F	Misc	Good	High
	Texture:	Deep Textured							
	Color:	White							
	Size:	2'x2'							
	Other:								

Sample Information				
Sample Number	**Building Floor**	**[6]Location**	**Layer**	**Percent / Type Asbestos**
BH-1	2nd	Room 244		ND
BH-2	2nd	Husbandry		ND
BI-1	2nd	Room 244		ND
BI-2	2nd	Room 244		ND
BJ-1	2nd	Hallway in front of men's restroom		ND
BJ-2	2nd	Room R210		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
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Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
BK	**Type:**	Ceiling Tile	2nd floor public restroom	N/A	SF	F	Misc	Good	High
	Texture:	Minor texture							
	Color:	White							
	Size:	2'x2'							
	Other:								
BL	**Type:**	Ceiling Tile	Administrative Offices- 2nd floor, 2nd floor hall for east emergency exit, lounge, animal bin room (223), education office (251), office 234, 235	N/A	SF	F	Misc	Good	High
	Texture:								
	Color:	White							
	Size:	2'x2'							
	Other:	Pinholes							
BM	**Type:**	Wall panels	Auditorium top wall	N/A	SF	II	Misc	Good	High
	Texture:	Fiberous							
	Color:	Painted black							
	Size:								
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
BK-1	2nd	Men's Restroom		ND
BK-2	2nd	Women's Restroom		ND
BL-1	2nd	Reception Room		ND
BL-2	2nd	Room 204		ND
BM-1	2nd	Near NW entrance		ND
BM-2	2nd	Near SW entrance		ND

Notes

Minimum Sampling Requirements		
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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
BN	**Type:**	Pipe insulation- Hard Fittings	Chilled water line in Oceans classroom Mechanical Room, Hallway, Auditorium, Screen Room. (Deteriorating in Mechanical Room, Poor Condition in this location) (See Homogenous Area CG for quantity of black mastic.	N/A	LF	F	TSI	Fair	High
	Texture:								
	Color:	White							
	Size:	4" Insulation							
	Other:	Hard packing, the run is fiberglass. Hot water line appears to be same elbow in the Storage Closet							
BO	**Type:**	Stainless steel sink, undercoat	Sensory classroom, oceans classroom	N/A		F	Misc	Fair	High
	Texture:	Yes							
	Color:	White							
	Size:	2x2							
	Other:	3 sinks							
BP	**Type:**	Interior window caulk	Long vertical windows in 2nd floor east wing, north side of building	N/A	LF	II	Misc	Good	High
	Texture:								
	Color:	White							
	Size:								
	Other:	Pliable							

Sample Information				
Sample Number	**Building Floor**	**[6]Location**	**Layer**	**Percent / Type Asbestos**
BN-1	2nd	Oceans Classroom- Mech. Rm (Water Supply)	Beige	ND
BN-2	2nd	Oceans Classroom- Mech. Rm. (Water Return)	Beige	ND
BN-3	2nd	Oceans Classroom- Storage Rm. (Water Supply)	Silver,Yellow	ND
			Black	**5% Chrysotile**
BO-1	2nd	Oceans Classroom		ND
BO-2	2nd	Room R210		ND
BP-1	2nd	Support Room,(R211)		ND
BP-2	2nd	Oceans classroom		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
BQ	**Type:**	Ceiling tile	2nd floor Exhibit Area (upper landing)	N/A	SF	F	Misc	Good	High
	Texture:	Yes							
	Color:	White							
	Size:	2'x2'							
	Other:	Sand appearance							
BR	**Type:**	Glass tile grout	2nd floor near center stairwell	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Gray							
	Size:								
	Other:								
BS	**Type:**	Stucco	2nd floor, shadows on the sand east wall.	375	SF	II	Sur	Good	High
	Texture:	Yes							
	Color:	Painted							
	Size:								
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
BQ-1	2nd	Upper landing		ND
BQ-2	2nd	Upper landing		ND
BR-1	2nd	2nd floor near center staiwell		ND
BR-2	2nd	2nd floor near center stairwell		ND
BS-1	2nd	Shadows on the sand, east wall		ND
BS-2	2nd	Shadows on the sand, east wall		ND
BS-3	2nd	Shadows on the sand, east wall		ND

Notes

Minimum Sampling Requirements		
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SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	East Wing Building (1st-3rd Floors): Three story structure, constructed of concrete sub floor, concrete roof deck, concrete block walls, drywall partitioned walls. The roof was not included in this assessment.				
Date of Assessment:	1-29-24 to 2-8-24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
BT	**Type:**	Material under carpet	2nd floor corridor outside room: ocean classroom, R211, R210, admin suite, restrooms, auditorium	N/A	SF	II	Misc	Fair	High
	Texture:								
	Color:	Gray							
	Size:								
	Other:								
BU	**Type:**	Black material under carpet	1st floor between photo area and shadows on the sand door	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Black							
	Size:								
	Other:								
BV	**Type:**	Leveling compound	In front of shadows on the sand, 1st floor	N/A	SF	II	Misc	Fair	High
	Texture:								
	Color:	White							
	Size:								
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
BT-1	2nd	Outside oceans classroom		ND
BT-2	2nd	In hallway, near Room 201		ND
BT-3	1st	Hallway door to teaching room, (136)		ND
BU-1	1st	In front of photo exhibit		ND
BU-2	1st	In front of photo exhibit		ND
BV-1	1st	At double door, 1st floor		ND
BV-2	1st	Along east wall, 1st floor		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

Quantities are approximate and should not be used for cost estimates or bidding purposes.

ND = None Detected NA = Not Applicable HA = Homogenous Area

[1]**Quantity**: SF = Square Feet LF = Linear Feet CF = Cubic Feet

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[3]**Type**: Misc = Miscellaneous Sur = Surfacing TSI = Thermal System Insulation

[4]**Condition**: Good, Fair, or Poor

[5]**PFD:** Potential for Disturbance due to Renovation or Demolition: Low or High

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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
BW	**Type:**	Laminate floor	In front of gift shop	N/A	SF	I	Misc	Good	High
	Texture:								
	Color:	Wood appearance							
	Size:								
	Other:								
BX	**Type:**	Stamped flooring	Gift shop	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Brown							
	Size:								
	Other:								
BY	**Type:**	Vinyl flooring	Gift shop office	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Gray							
	Size:								
	Other:								

Sample Information				
Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
BW-1	1st	In front of gift shop	Vinyl Flooring	ND
			Mastic	ND
BW-2	1st	In front of gift shop	Vinyl Flooring	ND
BX-1	1st	Gift shop entrance		ND
BX-2	1st	Gift shop entrance		ND
BY-1	1st	Gift shop office	Flooring	ND
			Tarpaper	ND
BY-2	1st	Gift shop office	Flooring	ND
			Tarpaper	ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
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Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD	Sample Information: Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
BZ	**Type:**	Textured ceiling	Entrance to main building from playground, where restrooms are located.	450	SF	II	Sur	Good	High	BZ-1	1st	Outside restrooms		ND
	Texture:									BZ-2	1st	Outside restrooms		ND
	Color:	Painted black								BZ-3	1st	Outside restrooms		ND
	Size:													
	Other:													
CA	**Type:**	Omit Homogenous Area												
	Texture:													
	Color:													
	Size:													
	Other:													
CB	**Type:**	Ceiling Tile	Exhibit Design office	N/A	SF	F	Misc	Good	High	CB-1	2nd	Exhibit design office		ND
	Texture:	No								CB-2	2nd	Exhibit design office		ND
	Color:	White												
	Size:	2'x2'												
	Other:													

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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[4]**Condition**:	Good, Fair, or Poor		
[5]**PFD:**	Potential for Disturbance due to Renovation or Demolition: Low or High		
[6]**Sample Location**:	Refer to attached floor plan(s) / field drawing(s) for specific sample locations.		

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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
CC	**Type:**	Ceiling Tile	Office 236	N/A	SF	F	Misc	Good	High
	Texture:								
	Color:	White							
	Size:	2'x2'							
	Other:	Pinholes and splices							
CD	**Type:**	Ceiling tile	Office 237	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	White							
	Size:	2x4							
	Other:								
CE	**Type:**	Omit Homogenous Area							
	Texture:								
	Color:								
	Size:								
	Other:								

Sample Information				
Sample Number	**Building Floor**	**[6]Location**	**Layer**	**Percent / Type Asbestos**
CC-1	2nd	Rm. 236		ND
CC-2	2nd	Rm. 236		ND
CD-1	2nd	Rm. 237		ND
CD-2	2nd	Rm. 237		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
CF	**Type:**	Mastic on metal duct	Mechanical room, AHU #12	N/A	SF	II	Misc	Good	High
	Texture:								
	Color:	Gray							
	Size:								
	Other:								
CG	**Type:**	Mastic on Fiberglass Insulation	Chilled water lines (Supply and Return) in Oceans Classroom Mechanical Room, Storage Room, and Hallway, Auditorium, and Screen Room. The pipes switch to larger size in the Mechanical Duct located south of the Screen Room of the Auditorium.	200	LF	II	TSI	Good	High
	Texture:								
	Color:	Black							
	Size:	4" Insulation							
	Other:	Under White Canvas							
CH	**Type:**	Hard Packing on Hot Water Lines	Running to AHU #5 in Oceans Classroom, running to storag Room and into the hallway, Hot Water Return runs above ceiling in Oceans Classroom	N/A	LF	F	TSI	Fair	High
	Texture:								
	Color:	White							
	Size:	4" Insulation							
	Other:								

Sample Information				
Sample Number	**Building Floor**	**[6]Location**	**Layer**	**Percent / Type Asbestos**
CF-1	2nd	Mechanical room, 2nd floor near husbandry (233)		ND
CF-2	2nd	Mechanical room, 2nd floor near husbandry (233)		ND
CG-1	2nd	Mechanical Room (Chilled Water Return)	Black	**5% Chrysotile**
			Silver/Tan wrap	ND
CG-2	2nd	Mechanical Room (Chilled Water Return)	Black	**5% Chrysotile**
			Silver/Tan wrap	ND
CH-1	2nd	Ocean's Classroom-Mechanical Room, Elbow		ND
CH-2	2nd	Ocean's Classroom-Storage Room, Elbow		ND
CH-3	2nd	Ocean's Classroom-Storage Room, Elbow		ND

Notes

Minimum Sampling Requirements		
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Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
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[3]**Type**:	Misc = Miscellaneous	Sur = Surfacing	TSI = Thermal System Insulation
[4]**Condition**:	Good, Fair, or Poor		
[5]**PFD:**	Potential for Disturbance due to Renovation or Demolition: Low or High		
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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
CI	**Type:**	Hard Packing on Heat Line (Joints)	Hallway outside Oceans Classroom (Poor), Hallway outside Operations Office, Hallway Outside Educations Office	N/A	LF	F	TSI	Poor	High
	Texture:								
	Color:	White							
	Size:	7" insulation							
	Other:	white canvas, fiberglass runs.							
CJ	**Type:**	Fireproofing	Sprinkler room, wood shop, rear storage rooms and. Hanging rooms, hallway attached to wood shop	3,200	SF	F	Sur	Poor	High
	Texture:								
	Color:	Brown							
	Size:								
	Other:								
CK	**Type:**	Exterior stucco	Old section (1973 Section)	>5,000	SF	II	Sur	Good	High
	Texture:	Yes							
	Color:	Tan							
	Size:								
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
CI-1	2nd	Near Ceiling deck, Hallway outside Oceans CR		ND
CI-2	2nd	Telephone Room (Rm.209)		ND
CI-3	2nd	Near ceiling deck, outside Room 226		ND
CJ-1	1st	Hallway		ND
CJ-2	1st	Hallway		ND
CJ-3	1st	Hallway		ND
CJ-4	1st	Wood shop		ND
CJ-5	1st	Wood shop		ND
CK-1	1st	East of wood shop		ND
CK-2	1st	NE corner of bldg		ND
CK-3	1st	Left of doors leading to hallway near wood shop		ND
CK-4	1st	East side of building		ND
CK-5	1st	East side of building, right of Auditorium door		ND
CK-6	1st	South side of building		ND
CK-7	2nd	Husbandry, east wall former exterior wall		ND

Notes

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Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
CL	**Type:**	Caulk	Caulk between exterior panels, old section	N/A	LF	II	Misc	Fair	High
	Texture:								
	Color:	White							
	Size:								
	Other:								
CM	**Type:**	Floor Tile	3rd floor lab office	N/A	SF	I	Misc	Good	High
	Texture:								
	Color:	White; blue marks							
	Size:	12"							
	Other:								
CN	**Type:**	Chilled water line hard fitting	Mechanical Room 131, Mechanical Shaft between 131 and Husbandry 231, Husbandry 231, Exhibit Room 219, Mechanical Shaft located South of Screen Room to Mechanical Room under Auditorium. Changes to 4" line after Auditorium Screen Room.	600	LF	F/II	TSI	Poor	
	Texture:								
	Color:	Blue line, white insulation and black mastic.							
	Size:	6-8"							
	Other:	Black mastic is located on fittings and long runs between joints of insulation.							

Sample Information				
Sample Number	**Building Floor**	**[6]Location**	**Layer**	**Percent / Type Asbestos**
CL-1	1st	East-northeast side of building		ND
CL-2	1st	East-northeast side of building		ND
CM-1	3rd	Lab office (Room 303)	Floor Tile	ND
			Mastic	ND
CM-2	3rd	Lab office (Room 303)	Floor Tile	ND
			Mastic	ND
CN-1	1st	Elbow, hard white insulation on fiberglass	Black Mastic	**10% Chrysotile**
			Beige	ND
			Black	ND
CN-2	1st	Elbow, hard white insulation on foam	Black Mastic	**10% Chrysotile**
			Beige	ND
			Black	ND
CN-3	1st	Elbow, hard white insulation on foam	Black Mastic	**10% Chrysotile**
			Beige	ND
			Black	ND

Notes

Minimum Sampling Requirements		
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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD	Sample Information: Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
CO	**Type:**	Heating water line, joint insulation	Mechanical room (134), and possibly else where in building, mechanical room under auditorium seats (1st floor)	30	LF	F	TSI	Fair	High	CO-1	1st	Mechanical room (131)		ND
	Texture:									CO-2	1st	Mechanical room (131)		ND
	Color:	Red line, white insulation								CO-3	1st	Mechanical room (131)		ND
	Size:	5-8"												
	Other:													
CP	**Type:**	Exterior Door Caulk	Old Section Doors	N/A	LF	II	Misc	Fair	High	CP-1	2nd	Northeast Hallway Exterior Door		ND
	Texture:									CP-2	2nd	Operations Hallway Exterior Door		ND
	Color:	tan												
	Size:													
	Other:	Pliable												
CQ	**Type:**	Fire Caulking	Penetrations on CMU Block wall	N/A	LF	II	Misc	Good	High	CQ-1	1st	Sprinkler Room		ND
	Texture:									CQ-2	1st	Husbandry (134)		ND
	Color:	red/purplish												
	Size:													
	Other:	pliable												

Notes

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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD	Sample Information: Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
CR	**Type:**	Omit Homogenous Area												
	Texture:													
	Color:													
	Size:													
	Other:													
CS	**Type:**	Concrete board	Husbandry/ quarantine rooms on 2nd and 1st floors	N/A	SF	II	Misc	Good	High	CS-1	1st	North wall in Husbandry 134		ND
	Texture:									CS-2	1st	North wall in Husbandry 134		ND
	Color:	Painted												
	Size:													
	Other:													
CT	**Type:**	TSI (boiler exhaust pipe)	Mechanical room 131, boilerroom	N/A	SF	F	TSI	Good	High	CT-1	1st	Mechanical Room (131)		ND
	Texture:									CT-2	1st	Mechanical Room (131)		ND
	Color:	Red insulation cover, white insulation								CT-3	1st	Mechanical Room (131)		ND
	Size:	20"												
	Other:													

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
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HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
CU	**Type:**	Chilled water line	Mechanical room husbandry 134, 233, 231, Mechanical (145), Husbandry (148), Sprinkler Room (No Number), Under Auditorium.	N/A	LF	II	TSI	Good	High
	Texture:								
	Color:								
	Size:								
	Other:	On fittings and long runs							
CV	**Type:**	Exterior stucco (new section)		>5,000	SF	II	Sur	Good	High
	Texture:								
	Color:								
	Size:								
	Other:								
CW	**Type:**	Exterior Caulk	New portion of Building- Doors, expansion, and vents	N/A	LF	II	Misc	Good	High
	Texture:								
	Color:								
	Size:								
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
CU-1	1st	Mechanical (131)		ND
CU-2	1st	Mechanical (131)		ND
CU-3	1st	Mechanical (138)		ND
CV-1	3rd	South Wall		ND
CV-2	1st	Right of Storage Room 146		ND
CV-3	1st	Northeast wall		ND
CV-4	1st	Northeast wall		ND
CV-5	1st	East wall		ND
CV-6	1st	East wall		ND
CV-7	1st	Outside southeast exit from Husbandry 136		ND
CW-1	1st	Southeast Exterior Door of Auditorium		ND
CW-2	1st	Southeast Exterior Door from Husbandry 136		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

Quantities are approximate and should not be used for cost estimates or bidding purposes.

ND = None Detected NA = Not Applicable HA = Homogenous Area

[1]**Quantity**: SF = Square Feet LF = Linear Feet CF = Cubic Feet

[2]**Category**: F = Friable I = Category I, Non-Friable II = Category II, Non-Friable

[3]**Type**: Misc = Miscellaneous Sur = Surfacing TSI = Thermal System Insulation

[4]**Condition**: Good, Fair, or Poor

[5]**PFD:** Potential for Disturbance due to Renovation or Demolition: Low or High

[6]**Sample Location**: Refer to attached floor plan(s) / field drawing(s) for specific sample locations.

Generator Building

SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	Generator Building- CMU Block Wall structure, elevated foundation, with a flat roof. The roof was not included in this assessment.				
Date of Assessment:	2/8/24						

HA	Material Description		Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD
AAA	**Type:**	CMU Wall Block Coating	Exterior of Building	1,700	SF	II	Sur	Poor	High
	Texture:								
	Color:	Painted							
	Size:								
	Other:								
AAB	**Type:**	Drywall and Joint Compound	Interior Ceiling	500	SF	II	Sur / Misc	Good	High
	Texture:	No							
	Color:	Brown and white							
	Size:								
	Other:								
AAC	**Type:**	Exterior Door and Window Caulking	Doors and windows on front	N/A	LF	II	Misc	Good	High
	Texture:								
	Color:	tan/white							
	Size:								
	Other:								

Sample Information

Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
AAA-1	1st	East side		ND
AAA-2	1st	North Side		ND
AAA-3	1st	Stairs		ND
AAA-4	1st	West Side		ND
AAA-5	1st	South side		ND
AAB-1	1st	Ceiling	Composite	ND
AAB-2	1st	Ceiling	Composite	ND
AAB-3	1st	Ceiling	Composite	ND
AAC-1	1st	Door		ND
AAC-2	1st	Door		ND

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

Quantities are approximate and should not be used for cost estimates or bidding purposes.

ND = None Detected NA = Not Applicable HA = Homogenous Area

[1]**Quantity**: SF = Square Feet LF = Linear Feet CF = Cubic Feet

[2]**Category**: F = Friable I = Category I, Non-Friable II = Category II, Non-Friable

[3]**Type**: Misc = Miscellaneous Sur = Surfacing TSI = Thermal System Insulation

[4]**Condition**: Good, Fair, or Poor

[5]**PFD:** Potential for Disturbance due to Renovation or Demolition: Low or High

[6]**Sample Location**: Refer to attached floor plan(s) / field drawing(s) for specific sample locations.

SUMMARY OF ASBESTOS SAMPLING

General Information

Project Name:	NC Aquarium Fort Fisher- Addition and Renovation	**Inspector:**	Benjamin Best	**Accreditation / License Number:**	12997	**State:**	North Carolina
S&ME Project Number:	23060119	**Description of Structure:**	Generator Building- CMU Block Wall structure, elevated foundation, with a flat roof. The roof was not included in this assessment.				
Date of Assessment:	2/8/24						

HA		Material Description	Material Location	[1]Quantity	(Units)	[2]Cat	[3]Type	[4]Cond	[5]PFD	Sample Information: Sample Number	Building Floor	[6]Location	Layer	Percent / Type Asbestos
AAD	**Type:**	Interior Caulk for Vents	Around Vents for Generator	N/A	LF	II	Misc	Good	High	AAD-1	1st	Generator Room		ND
	Texture:									AAD-2	1st	Generator Room		ND
	Color:	White												
	Size:													
	Other:													
AAE	**Type:**	TSI	On muffler of Green Generator	N/A	SF	F	TSI	Fair	High	AAE-1	1st	Muffler		ND
	Texture:									AAE-2	1st	Muffler		ND
	Color:	White								AAE-3	1st	Muffler		ND
	Size:													
	Other:	Appears to be just repaired												
AAF	**Type:**	TSI on floor	On floor from muffler of Green Generator.	N/A	SF	F	Sur / Misc	Good	High	AAF-1	1st	Floor under green generator muffler		ND
	Texture:									AAF-2	1st	Floor under green generator muffler		ND
	Color:	white/pink								AAF-3	1st	Floor under green generator muffler		ND
	Size:													
	Other:													

Notes

Minimum Sampling Requirements		
Thermal System Insulation	**Surfacing Materials**	**Miscellaneous Materials**
≥ 3 Samples	< 1,000 SF = 3 Samples	≥ 2 Samples (EPA)
Patch < 6 LF = 1 Sample (EPA)	1,000 SF – 5,000 SF = 5 Samples	≥ 3 Samples (SC)
Patch < 6 LF = 3 Samples (SC)	> 5,000 SF = 7 Samples	

Quantities are approximate and should not be used for cost estimates or bidding purposes.

	ND = None Detected	NA = Not Applicable	HA = Homogenous Area
[1]**Quantity**:	SF = Square Feet	LF = Linear Feet	CF = Cubic Feet
[2]**Category**:	F = Friable	I = Category I, Non-Friable	II = Category II, Non-Friable
[3]**Type**:	Misc = Miscellaneous	Sur = Surfacing	TSI = Thermal System Insulation
[4]**Condition**:	Good, Fair, or Poor		
[5]**PFD:**	Potential for Disturbance due to Renovation or Demolition: Low or High		
[6]**Sample Location**:	Refer to attached floor plan(s) / field drawing(s) for specific sample locations.		

Appendix II – **Summary of Lead Sampling**

Entry Building

Summary of Lead in Paint Sampling

Project Name: NC Aquarium Fort Fisher Aquarium – Addition and Renovation		**Project Number:** 23060119	
Location: Entry Building 900 Loggerhead Road, Kure Beach, NC 28449		**Sampling Date(s):** 1/29/24-1/30/24	**Assessor & State Number:** Benjamin Best/110343

Sample Number	Substrate	Component	Color	Sample Location[1]	Concentration (% by weight)	>LOD[2]
Pb-01	Stucco	Wall	Off-White	Left of otter exhibit entrance	<0.0047	No
Pb-02	CMU	Wall	Light Blue	Rm. 101	<0.0035	No
Pb-03	Drywall	Ceiling	Orange	Right of otter exhibit entrance	<0.0049	No
Pb-04	Drywall	Wall	White	In lobby @ entrance to Rm. 109	<0.0038	No
Pb-05	Metal	Door frame/door	White	Rm.109	<0.0047	No
Pb-06	Concrete	Floor	Yellow	Rm.109	<0.0086	No
Pb-07	Drywall/cmu wall/ metal	Wall/ door/ door frame	Gray/light blue	Rm. 108	<0.0046	No
Pb-08	Ceramic tile	Wall	Tan	Rm. 108 Restroom	<0.0015	No
Pb-09	Ceramic tile	Wall	Green	Rm. 108 Restroom	<0.0020	No
Pb-10	Concrete	Ceiling	Dark Blue	Lobby area, near vestibule to Otter exhibit	0.0041	Yes
Pb-11	Ceramic Tile	Wall	Green	Exterior women's restroom	<0.0022	No

[1]Sample location: Refer to attached sample location drawing for specific sample locations.
[2]LOD = Limit of Detection
[3]: The laboratory notes sample weight below protocol guidelines
[4]: The laboratory notes sample contains substrate, potentially affecting results.

Summary of Lead in Paint Sampling

Project Name: NC Aquarium Fort Fisher Aquarium – Addition and Renovation	**Project Number:** 23060119	
Location: Entry Building 900 Loggerhead Road, Kure Beach, NC 28449	**Sampling Date(s):** 1/29/24-1/30/24	**Assessor & State Number:** Benjamin Best/110343

Sample Number	Substrate	Component	Color	Sample Location[1]	Concentration (% by weight)	>LOD[2]
Pb-12	Ceramic tile	Wall	White	Exterior women's restroom	<0.0024	No
Pb-13	Metal or steel	Exterior poles	White	In front of building	<0.0044	No
Pb-14	Metal/poly	Door frame	Tan	Men's restroom	<0.019[3]	No
Pb-32	Cmu	Wall	Blue	Men's restroom	<0.0042	No
Pb-33	CMU	Wall	White	Men's restroom	<0.0039	No

[1]Sample location: Refer to attached sample location drawing for specific sample locations.
[2]LOD = Limit of Detection
[3]: The laboratory notes sample weight below protocol guidelines
[4]: The laboratory notes sample contains substrate, potentially affecting results.

Main Exhibit Building, East Wing

Summary of Lead in Paint Sampling

Project Name: NC Aquarium Fort Fisher– Addition and Renovation	**Project Number:** 23060119	
Location: East Wing, Main Exhibit Building 900 Loggerhead Road, Kure Beach, NC 28449	**Sampling Date(s):** 1/29/24-2/13/24	**Assessor & State Number:** Benjamin Best/110343

Sample Number	Substrate	Component	Color	Sample Location[1]	Concentration (% by weight)	>LOD[2]
Pb-15	CMU wall, drywall, wall board	Wall	White/orange	Room 244	<0.0035	No
Pb-16	CMU, wood	Wall	Dark blue	Auditorium Screen Room	<0.0040	No
Pb-17	Drywall	Wall	Turquoise, gray, green	Vestibule, between 2nd floor and otter exhibit.	<0.0049	No
Pb-18	Drywall, wood concrete, metal	Walls, cove base, doors and door frames	Grayish blue	Wall of sea turtle conservation exhibit	<0.0044	No
Pb-19	Concrete	Ceiling, conduit, piping,	Black	Middle of 2nd floor exhibit area, on concrete beam	0.0035	Yes
Pb-20	Drywall	Walls	Dark blue/purplish	Middle of 2nd floor exhibit area, on south wall, behind fodder crab display	<0.0039	No
Pb-21	Metal/ steel	Handrails	Silver	Middle of 2nd floor walkway, south of humpback whale	<0.0050	No
Pb-22	Fiberglass	Fish tank	Tan	East side of touch pool	<0.0046	No
Pb-23	Concrete	Structural, and roof deck	Light blue	Room. 257, north concrete beam on ceiling	<0.0042	No
Pb-24	CMU, drywall	Walls	Sea foam green	Room 211	<0.0035	No
Pb-25	Drywall	Walls	Off-white	Administrative suite, behind receptionist desk	<0.0040[4]	No

[1]Sample location: Refer to attached field drawing for specific sample locations.
[2]LOD = Limit of Detection
[3]: The laboratory notes sample weight below protocol guidelines
[4]: The laboratory notes sample contains substrate, potentially affecting results.

Summary of Lead in Paint Sampling

Project Name: NC Aquarium Fort Fisher– Addition and Renovation	**Project Number:** 23060119	
Location: East Wing, Main Exhibit Building 900 Loggerhead Road, Kure Beach, NC 28449	**Sampling Date(s):** 1/29/24-2/13/24	**Assessor & State Number:** Benjamin Best/110343

Sample Number	Substrate	Component	Color	Sample Location[1]	Concentration (% by weight)	>LOD[2]
Pb-26	Wood	Window frame	Off white, light blue, white	Window between admin site and emergency exit	<0.0038	No
Pb-27	Drywall	Walls	Yellow	Sensory room, Room R210	<0.0042	No
Pb-28	Drywall, CMU wall	Walls	Blue	Oceans classroom	<0.0049	No
Pb-29	Metal/ steel	Handrail poles	Black	Auditorium	0.0052	Yes
Pb-30	Drywall	Wall	Green	Support room, Room R211	<0.0038	No
Pb-31	Wood	Interior window frame	White	Long vertical windows in east wing 2nd floor	<0.0046	No
Pb-34	Metal	Wide Door, door frames	Light blue, dark blue, yellow, brown	Men's restroom, 2nd floor (also rm. 210, NE emergency exit hallway door, auditorium)	<0.0040	No
Pb-35	Stucco	Wall	Yellow	Shadows of the sand wall	<0.0035	No
Pb-36	Metal	Door Frame	White, gray	Room 257	<0.0039	No
Pb-37	Drywall	Walls	Off-white	1st floor, shadows of the sand wall	<0.0049	No
Pb-38	Metal	Door and frame	Green, yellow	1st floor door to auditorium	<0.0038	No

[1]Sample location: Refer to attached field drawing for specific sample locations.
[2]LOD = Limit of Detection
[3]: The laboratory notes sample weight below protocol guidelines
[4]: The laboratory notes sample contains substrate, potentially affecting results.

Summary of Lead in Paint Sampling

Project Name: NC Aquarium Fort Fisher– Addition and Renovation	**Project Number:** 23060119	
Location: East Wing, Main Exhibit Building 900 Loggerhead Road, Kure Beach, NC 28449	**Sampling Date(s):** 1/29/24-2/13/24	**Assessor & State Number:** Benjamin Best/110343

Sample Number	Substrate	Component	Color	Sample Location[1]	Concentration (% by weight)	>LOD[2]
Pb-39	CMU	Wall	White	2nd Floor, operations hallway near staff restrooms (Also in Rooms of Operations Hallway)	0.0091	Yes
Pb-40	Wood, wall paneling	Wall	Black/gray, yellow	Auditorium Near 2nd floor entrance	<0.0045	No
Pb-41	Drywall	Wall	Green/purple	2nd floor, operations hallway, staff restroom on left side.	<0.0047	No
Pb-42	Metal	Door and frames	Light blue (also red and white)	2nd floor, operations hallway, staff restroom on left side.	0.017	Yes
Pb-43	CMU	Wall	Gray	3rd floor, beside stairwell door	<0.0039	No
Pb-44	CMU	Wall	Light blue/white	Water quality lab, 3rd. Floor	<0.0042	No
Pb-45	Metal	Door, Door frame	White/gray	Water quality lab office	<0.0034	No
Pb-46	CMU	Wall	White	Husbandry (148)	<0.0041	No
Pb-47	Steel	Beam	Off-white	Husbandry (148)	<0.0039	No
Pb-48	Metal	HVAC duct	White	Husbandry (134)	<0.0092	No
Pb-49	CMU Wall	Wall	White	Husbandry (134) Old section	<0.0040	No

[1]Sample location: Refer to attached field drawing for specific sample locations.
[2]LOD = Limit of Detection
[3]: The laboratory notes sample weight below protocol guidelines
[4]: The laboratory notes sample contains substrate, potentially affecting results.

Summary of Lead in Paint Sampling

Project Name: NC Aquarium Fort Fisher– Addition and Renovation	**Project Number:** 23060119	
Location: East Wing, Main Exhibit Building 900 Loggerhead Road, Kure Beach, NC 28449	**Sampling Date(s):** 1/29/24-2/13/24	**Assessor & State Number:** Benjamin Best/110343

Sample Number	Substrate	Component	Color	Sample Location[1]	Concentration (% by weight)	>LOD[2]
Pb-50	Metal	Door	White	Husbandry (134) going to Mechanical Room	<0.0061	No
Pb-51	Wood	Door	Blue	To Husbandry (134) from Exhibit Room (130)	<0.0039	No
Pb-52	Wood	Door	Wood	Husbandry (134) to Exhibit Room (130)	<0.0045	No
Pb-53	Stucco	Exterior wall	Tan	Old section, exterior wall	<0.0047	No
Pb-54	Stucco	Exterior wall	Tan	New Section, exterior wall	<0.0050	No
Pb-55	Wood	Door	Light blue	Oceans Classroom Door	<0.0050	No
Pb-56	Metal	Door frame	Off-white, light blue	Support Classroom (R211)	<0.0047	No
Pb-57	Drywall	Wall	Dark Blue	Hallway outside Auditorium (2nd Floor) (Also on CMU Wall in this location)	0.0047	Yes
Pb-58	CMU	Wall	Light blue, green	Hallway outside Oceans Classroom	<0.0044	No
Pb-59	Metal	Door frame	Gray	Room 251 in operations hallway	<0.0044	No
Pb-60	CMU	Wall	Sky Blue	1st Floor Viewing Area, East Wall	<0.0036	No
Pb-61	CMU	Wall	Purple	Corridor 136	<0.0043	No

[1]Sample location: Refer to attached field drawing for specific sample locations.
[2]LOD = Limit of Detection
[3]: The laboratory notes sample weight below protocol guidelines
[4]: The laboratory notes sample contains substrate, potentially affecting results.

Summary of Lead in Paint Sampling

Project Name: NC Aquarium Fort Fisher– Addition and Renovation	**Project Number:** 23060119	
Location: East Wing, Main Exhibit Building 900 Loggerhead Road, Kure Beach, NC 28449	**Sampling Date(s):** 1/29/24-2/13/24	**Assessor & State Number:** Benjamin Best/110343

Sample Number	Substrate	Component	Color	Sample Location[1]	Concentration (% by weight)	>LOD[2]
Pb-62	Concrete	Wall	Dark Blue	Room 136	<0.0050	No
Pb-63	Drywall	Wall	Green	Gift Shop	<0.0041	No

[1]Sample location: Refer to attached field drawing for specific sample locations.
[2]LOD = Limit of Detection
[3]: The laboratory notes sample weight below protocol guidelines
[4]: The laboratory notes sample contains substrate, potentially affecting results.

Generator Building

Summary of Lead in Paint Sampling

Project Name: NC Aquarium Fort Fisher– Addition and Renovation		**Project Number:** 23060119	
Location: Generator Building 900 Loggerhead Road, Kure Beach, NC 28449		**Sampling Date(s):** 2/12/24	**Assessor & State Number:** Benjamin Best/110343

Sample Number	Substrate	Component	Color	Sample Location[1]	Concentration (% by weight)	>LOD[2]
Pb-64	Concrete Block	Wall	White	Exterior Stairs	<0.0043	No
Pb-65	Metal	Generator	Green	Generator Room	<0.0035	No
Pb-66	Metal	Generator	Yellow	Generator Room	<0.0039	No

[1]Sample location: Refer to attached field drawing for specific sample locations.
[2]LOD = Limit of Detection
[3]: The laboratory notes samples weight below protocol guidelines.
[4]: The Laboratory notes sample contains substrate, potentially affecting results.

Appendix III – **Summary of PCB Sampling**

Generator Building

PCB Sampling Field Data

Project Number:	23060119	**Date of Inspection:**	2/13/24	**Inspector(s):**	Benjamin Best
Project Name and Location:	NC Aquarium Fort Fisher Addition and Renovation Generator Building			**Assistant(s):**	

Sample #	Sample Type (Caulk, Concrete. Wipe)	Sample Location or Component	Results PPM
PCB-1	Caulk	Generator Building- Door and window/vent caulk	ND

ND: Not Detected at or above adjusted reporting limit.

Main Exhibit Building, East Wing

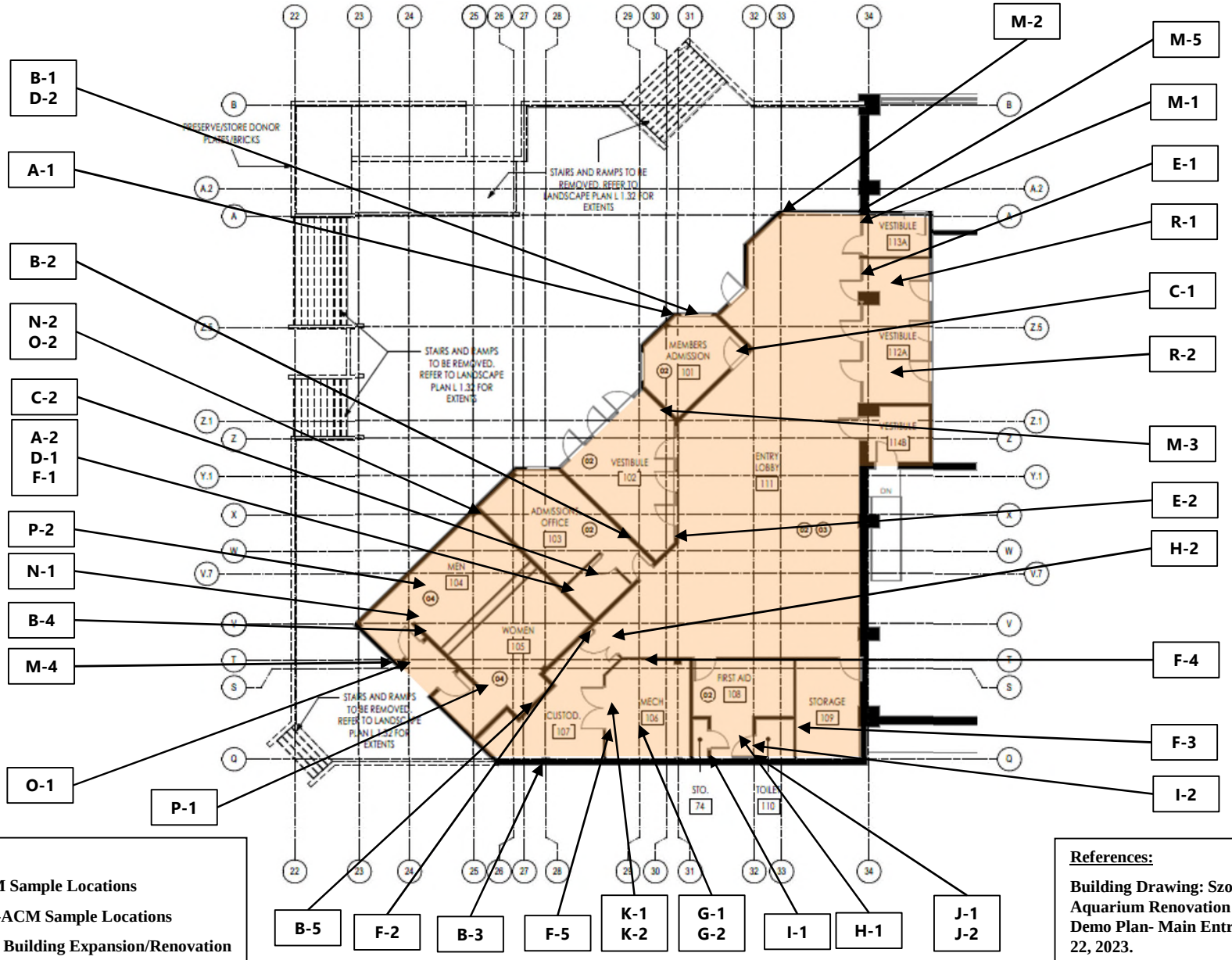
PCB Sampling Field Data

Project Number:	23060119	**Date of Inspection:**	2/13/24	**Inspector(s):**	Benjamin Best
Project Name and Location:	NC Aquarium Fort Fisher Addition and Renovation Main Exhibit Building, East Wing			**Assistant(s):**	

Sample #	Sample Type (Caulk, Concrete. Wipe)	Sample Location or Component	Results PPM
PCB-2	Caulk	Exterior Door, window, expansion caulk (Old Section)	ND
PCB-3	Caulk	Exterior Caulk between exterior stucco panels (old section)	ND

ND: Not Detected at or above adjusted reporting limit.

Appendix IV **– Asbestos Bulk Sample Locations**



LEGEND

A-#	ACM Sample Locations
A-#	Non-ACM Sample Locations
	2002 Building Expansion/Renovation

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, First Floor Demo Plan- Main Entry (AD-1.21 B), dated Sep. 22, 2023.

Asbestos Sample Locations

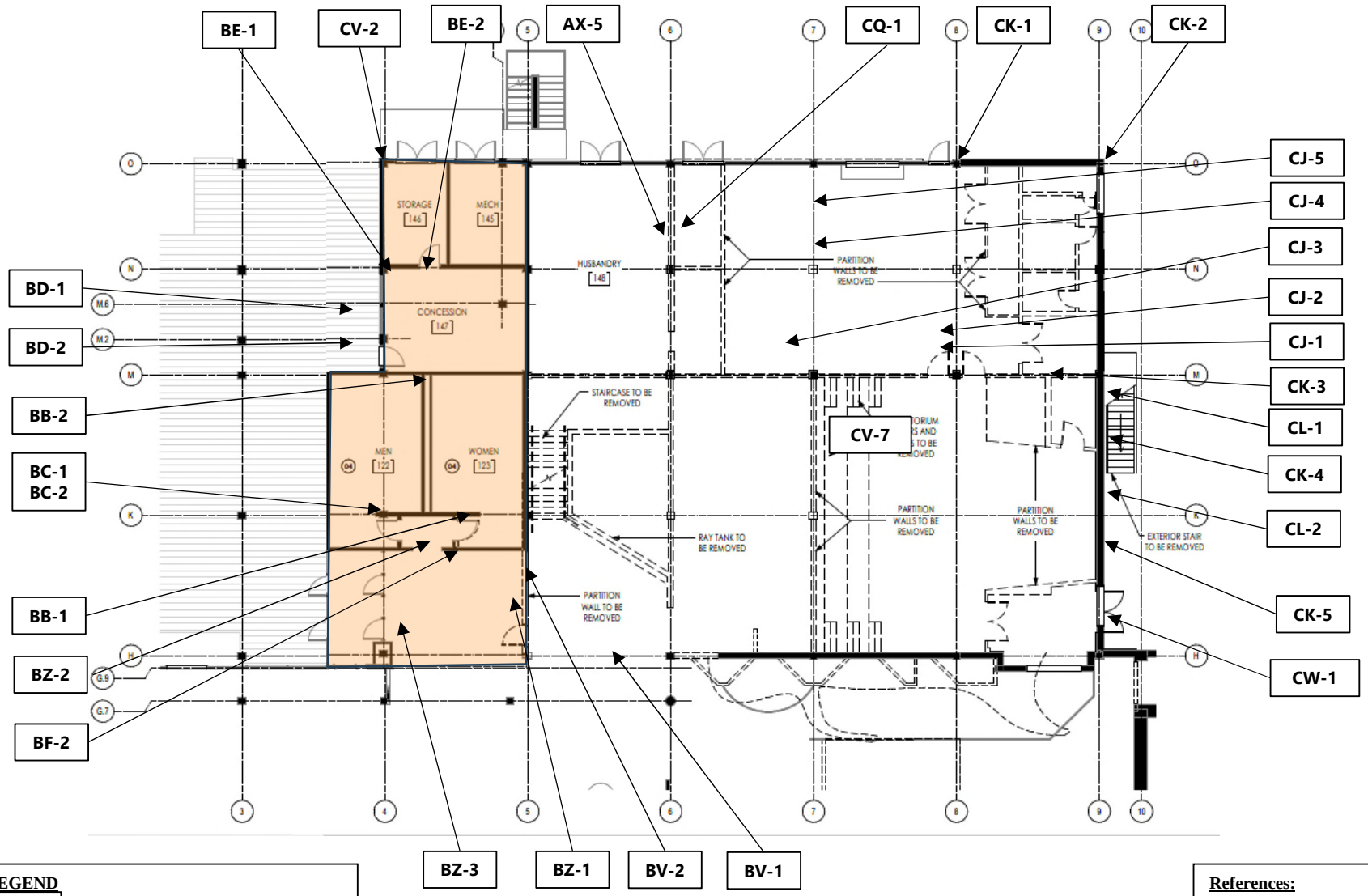
Entry Building (2002)
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 1



LEGEND

A-#	ACM Sample Locations
A-#	Non-ACM Sample Locations
	2002 Building Expansion/Renovation

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Second Floor Demo Plan- Main Entry (AD-1.21 B), dated Sep. 22, 2023.

Asbestos Sample Locations

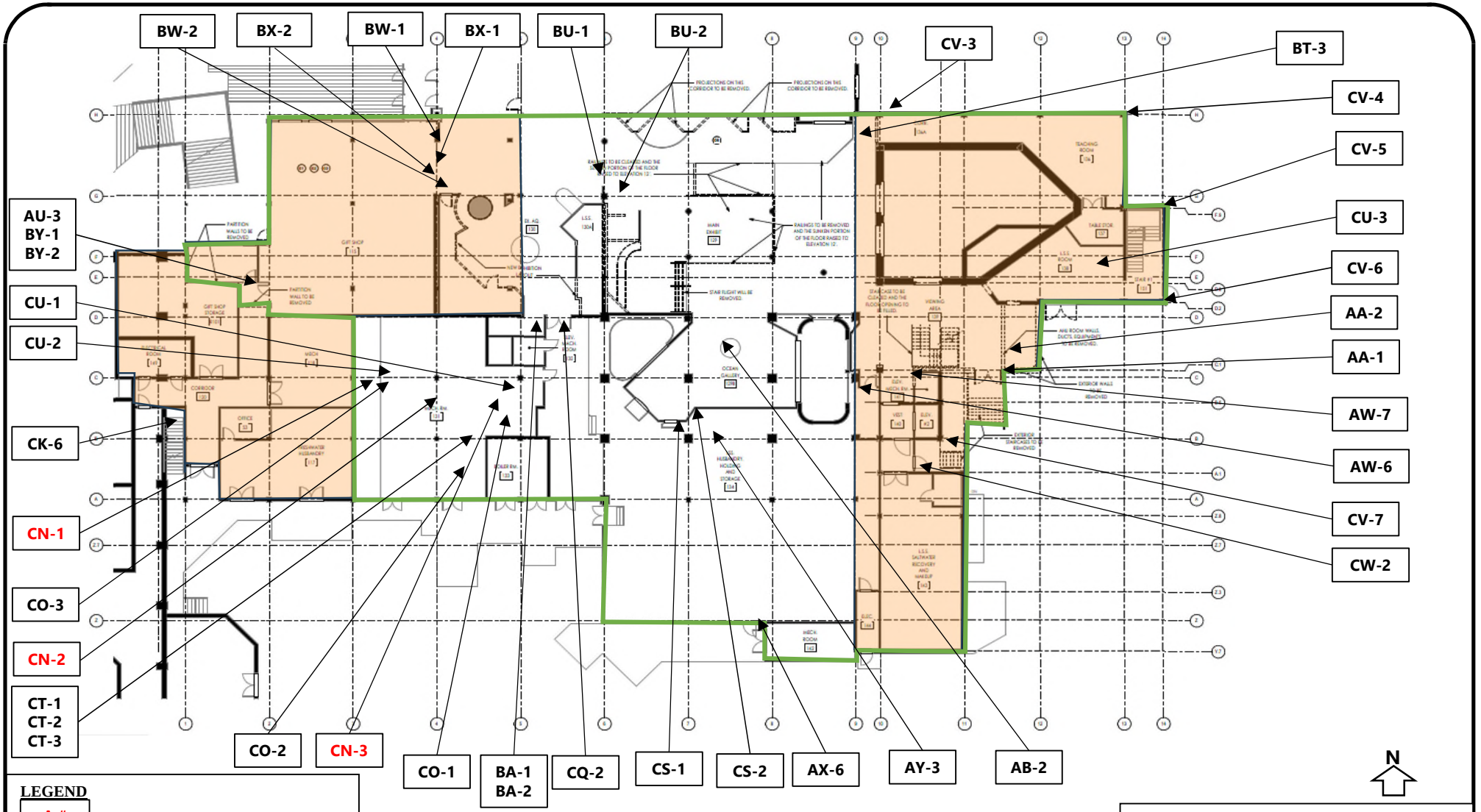
1st Floor East Wing- North Side
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 2



LEGEND

A-#	ACM Sample Locations
A-#	Non-ACM Sample Locations
	2002 Building Expansion/Renovation
	Assessment Area

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Second Floor Demo Plan- Main Entry (AD-1.21 A), dated Sep. 22, 2023.

Asbestos Sample Locations

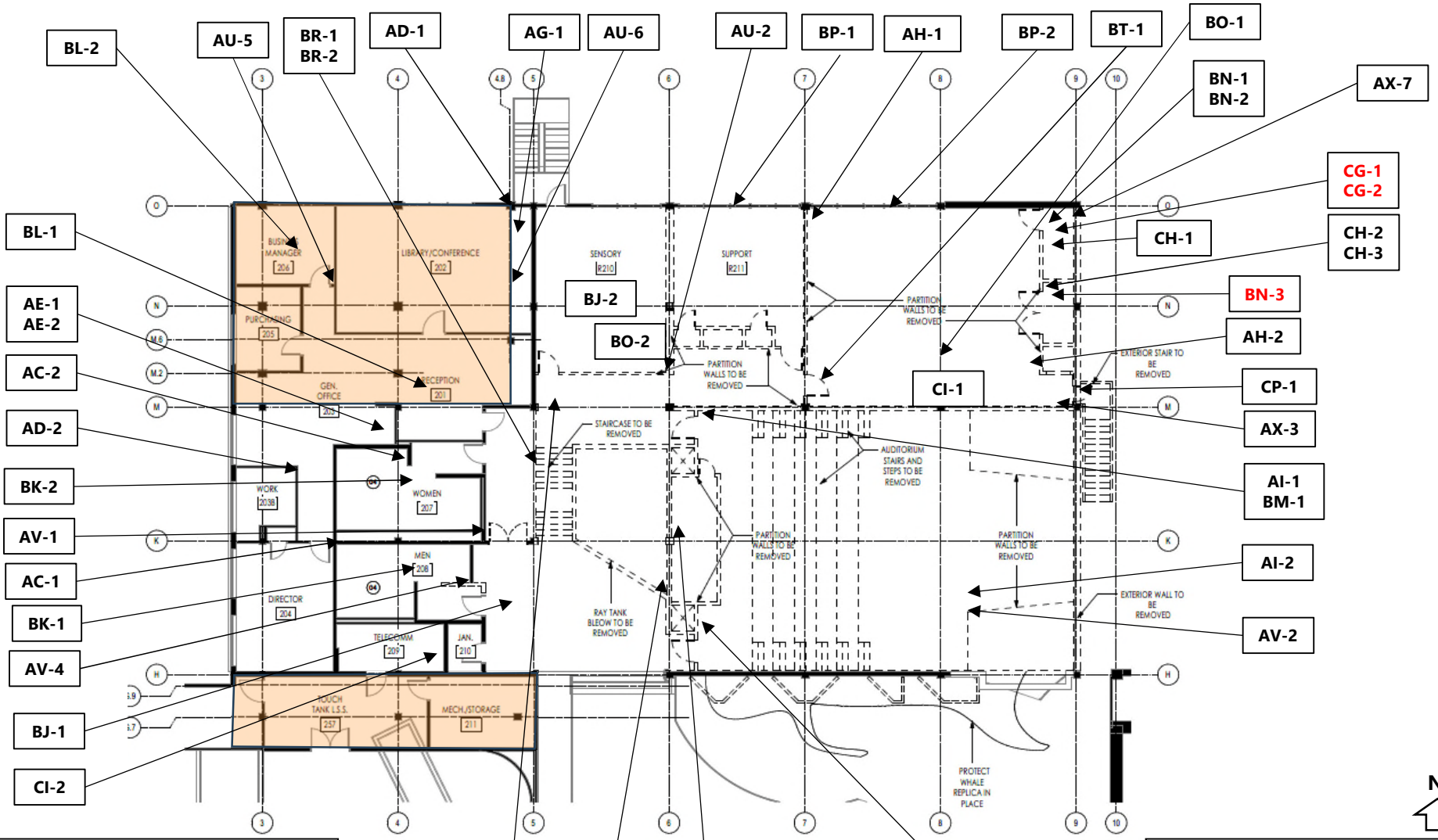
1st Floor East Wing- South Side
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 3



LEGEND

A-#	ACM Sample Locations
A-#	Non-ACM Sample Locations
	2002 Building Addition/Renovation

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Second Floor Demo Plan- Main Entry (AD-1.22 B), dated Sep. 22, 2023.

Asbestos Sample Locations

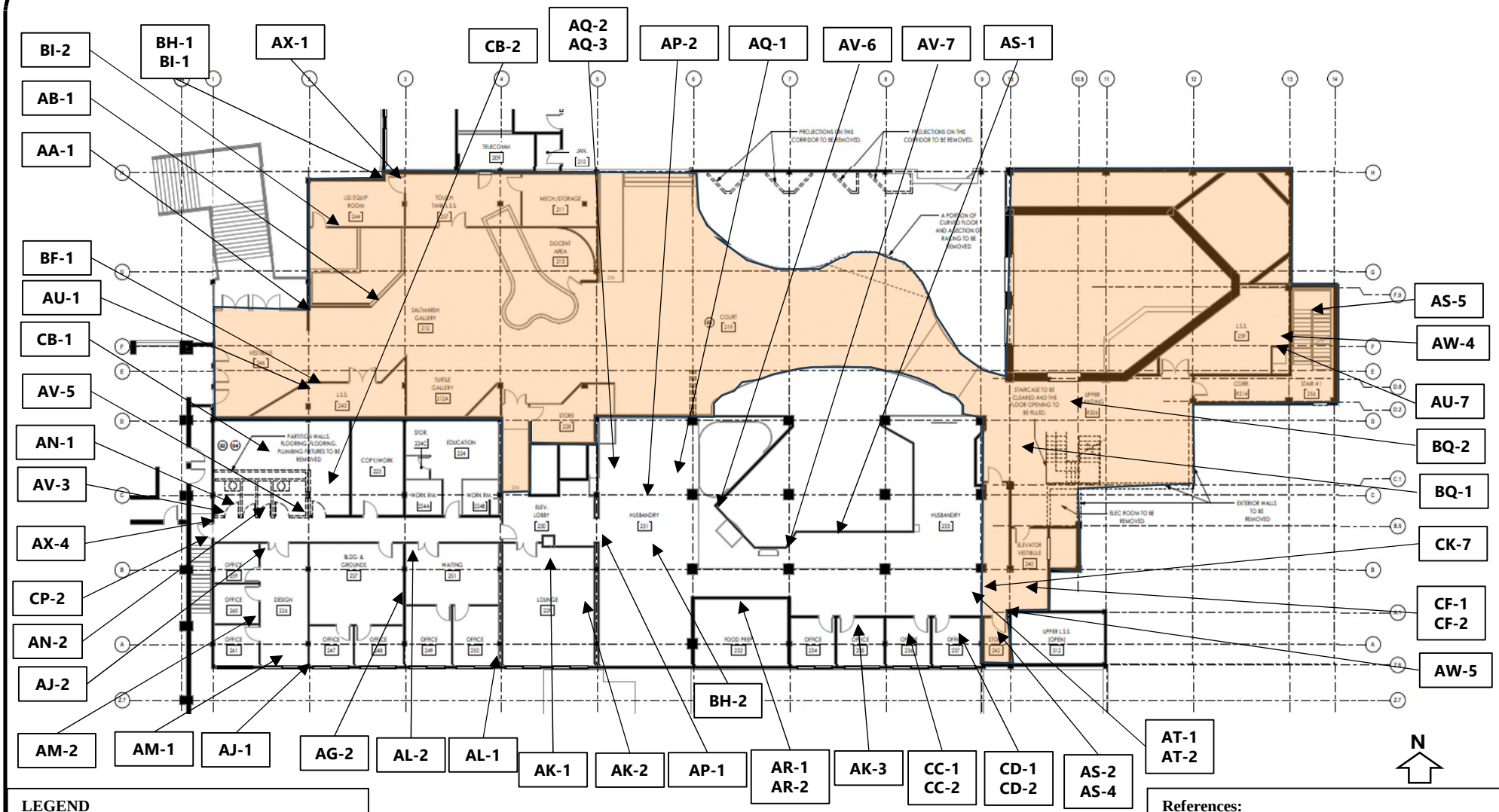
2nd Floor East Wing- North Side
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 4



LEGEND

A-#	ACM Sample Locations
A-#	Non-ACM Sample Locations
	2002 Building Addition/Renovation

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Second Floor Demo Plan- Main Entry (AD-1.22 A), dated Sep. 22, 2023.

Asbestos Sample Locations

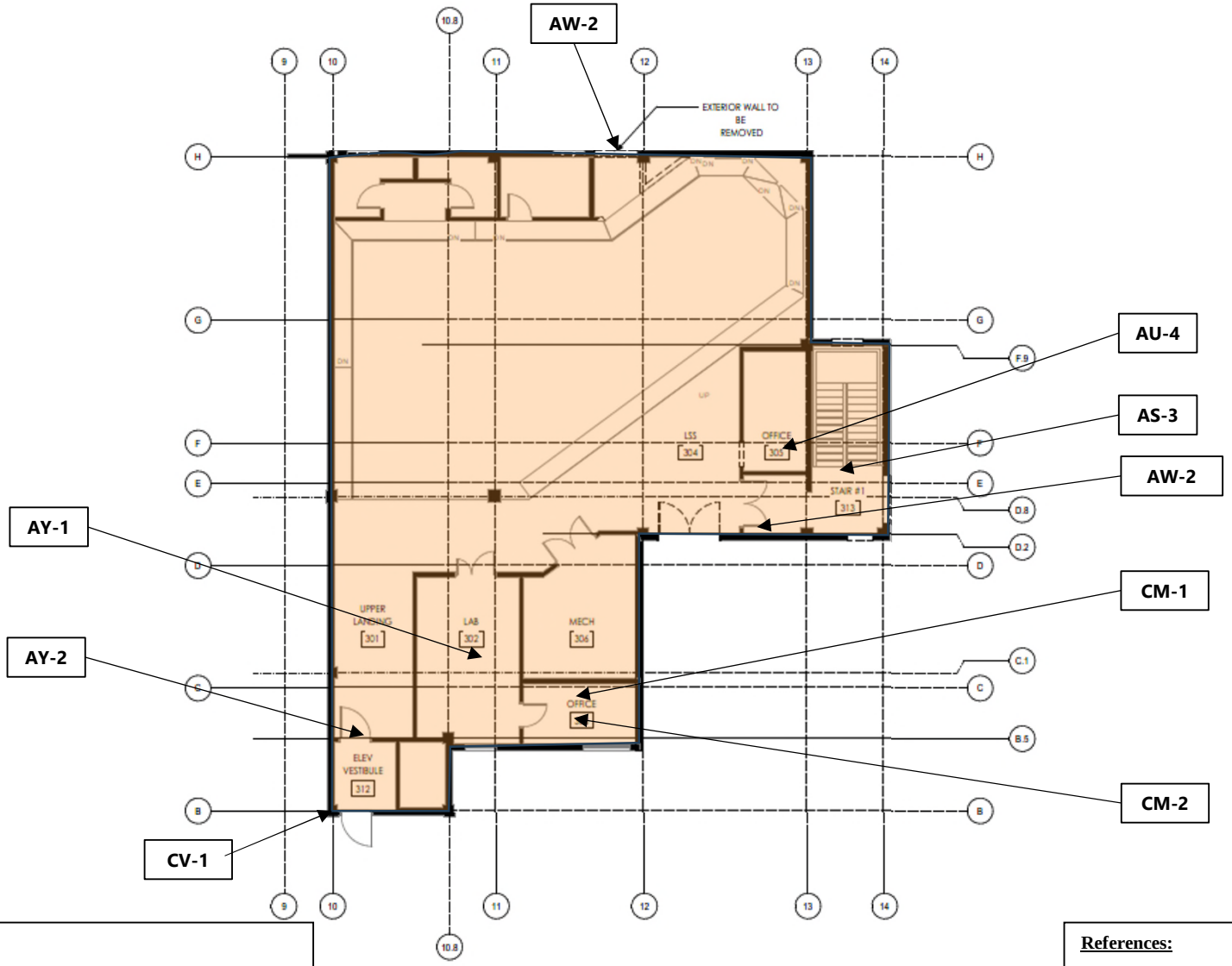
2nd Floor East Wing- South Side
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 5



LEGEND

A-#	ACM Sample Locations
A-#	Non-ACM Sample Locations
	Approximate 2002 Building Addition/Renovation

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Third Floor Demo Plan- Main Entry (AD-1.23 A), dated Sep. 22, 2023.

Asbestos Sample Locations

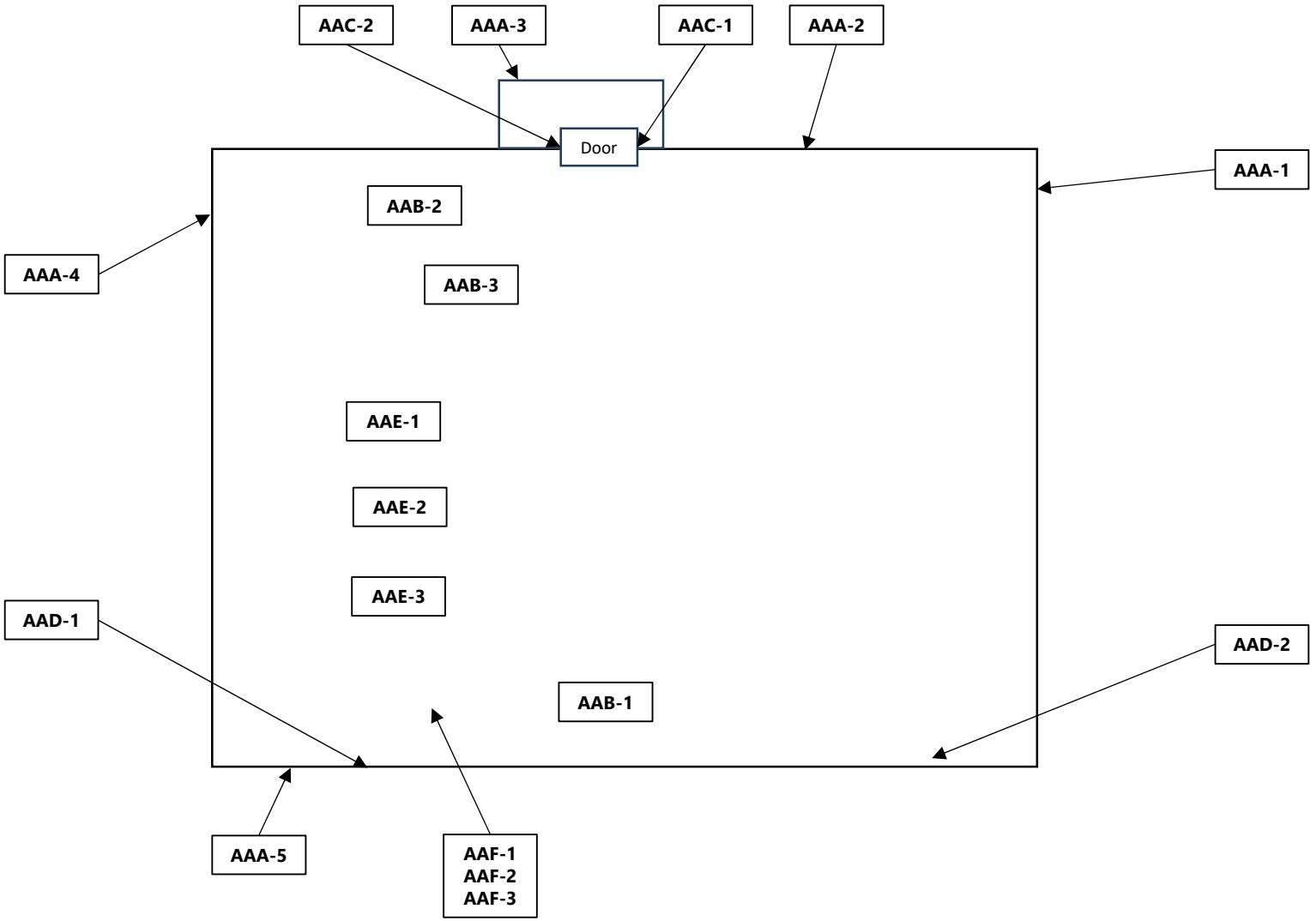
3rd Floor East Wing (2002)
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 6



LEGEND

A-#	ACM Sample Locations
A-#	Non-ACM Sample Locations

References:

Building Drawing is a field drawing.

Asbestos Sample Locations

Generator Building
NC Aquarium Fort Fisher Addition and Renovation

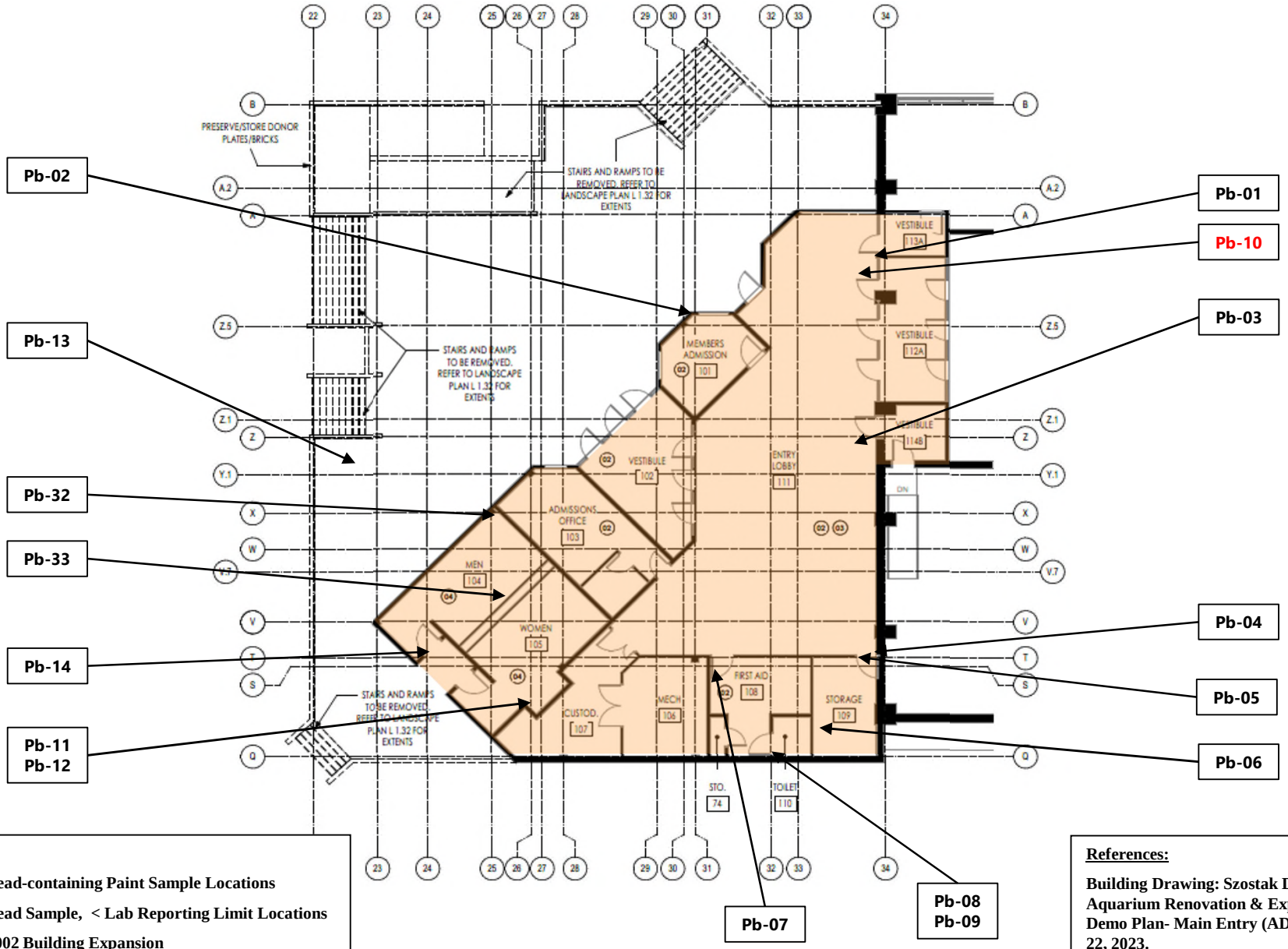
SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 7

Appendix V **– Lead Paint Sample Locations**



LEGEND

Pb-#	Lead-containing Paint Sample Locations
Pb-#	Lead Sample, < Lab Reporting Limit Locations
	2002 Building Expansion

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, First Floor Demo Plan- Main Entry (AD-1.21 B), dated Sep. 22, 2023.

Lead Sample Locations

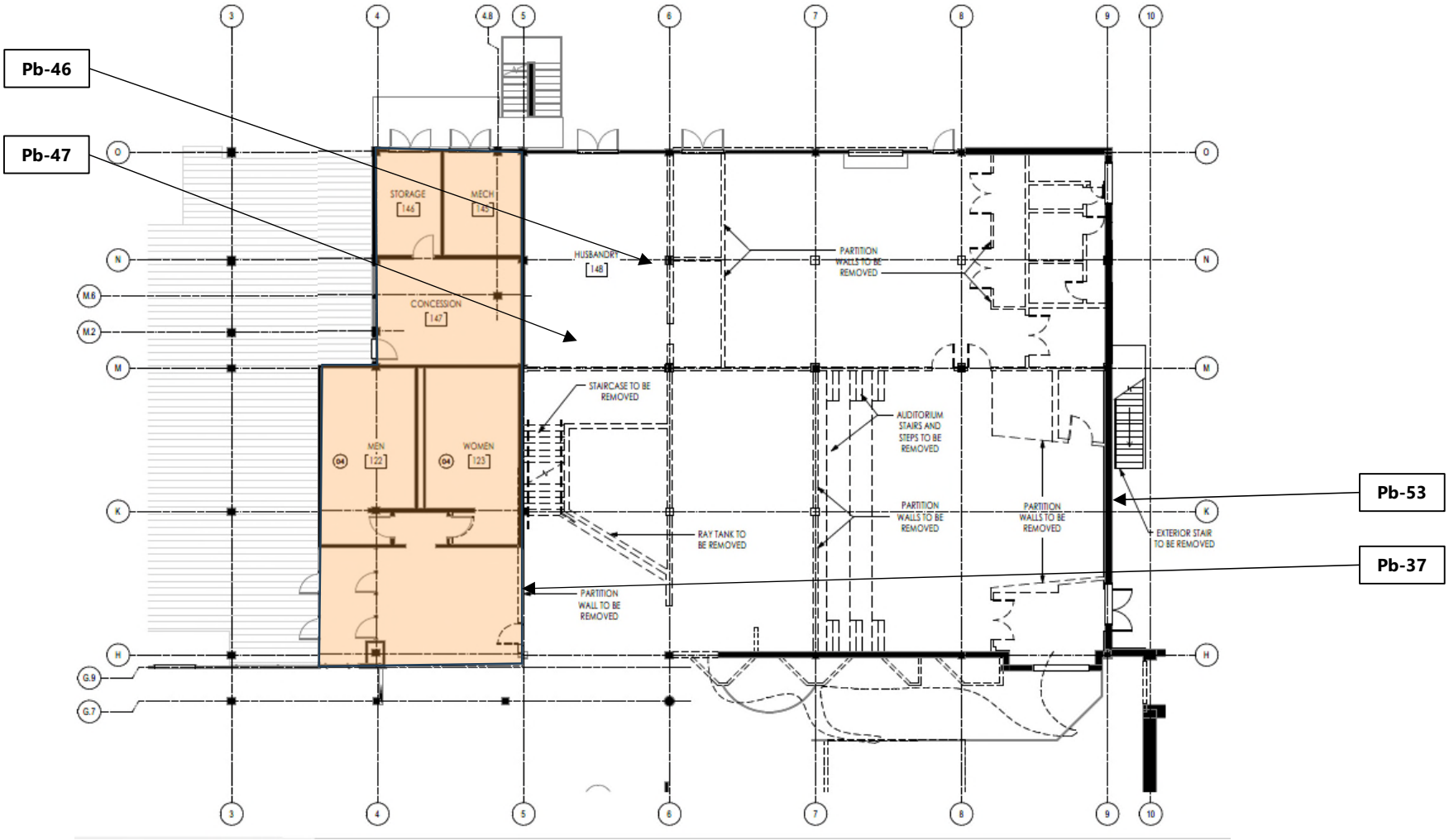
Entry Building (2002)
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 1



LEGEND

Pb-#	Lead-containing Paint Sample Locations
Pb-#	Lead Sample, < Lab Reporting Limit Locations
	2002 Building Expansion

References:

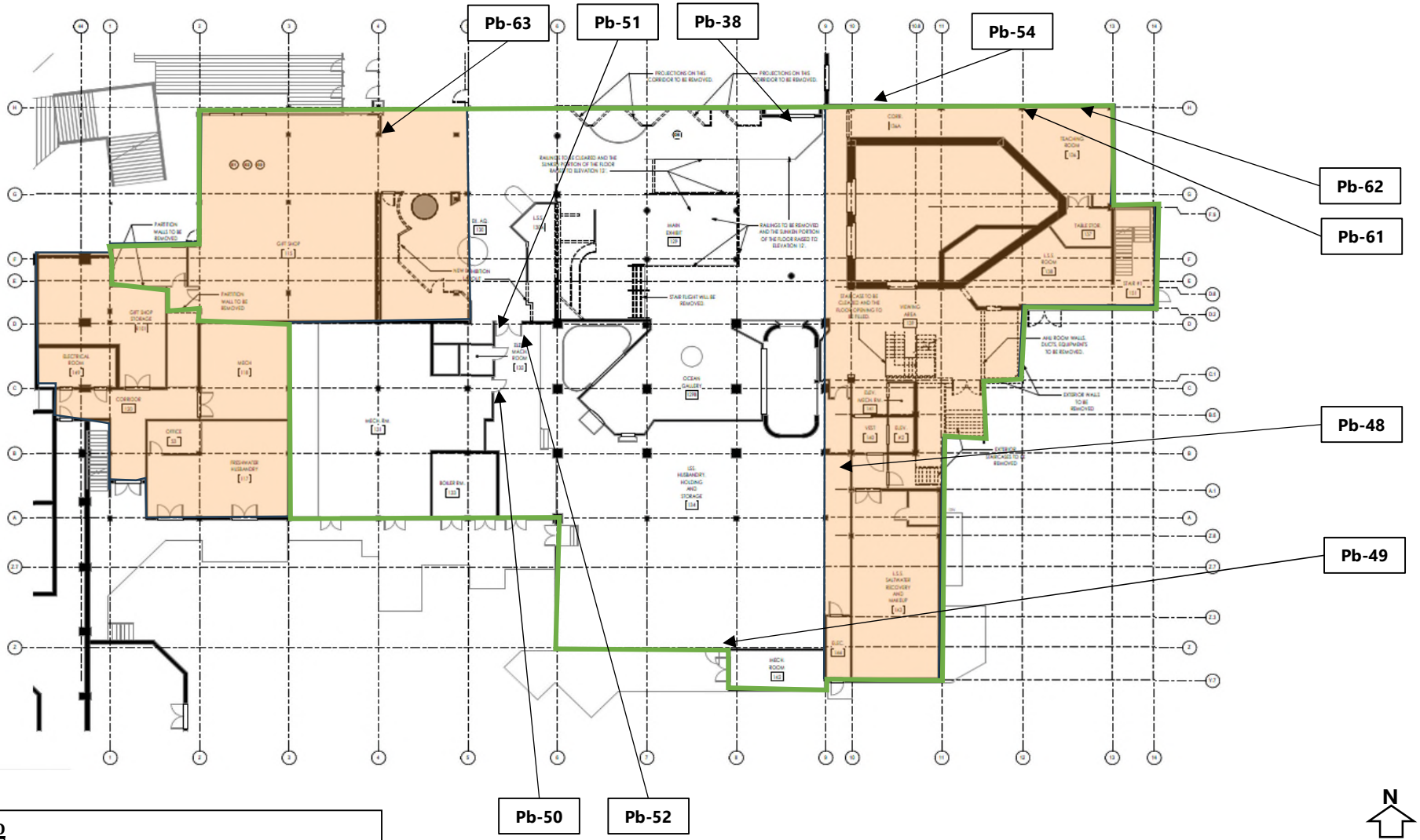
Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Second Floor Demo Plan- Main Entry (AD-1.21 B), dated Sep. 22, 2023.

Lead Sample Locations

1st Floor- North Side
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS
DATE: 2/29/2024
PROJECT NUMBER 23060119

FIGURE NO. 2



LEGEND

Pb-#	Lead-containing Paint Sample Locations
Pb-#	Lead Sample, < Lab Reporting Limit Locations
	2002 Building Expansion
	Assessment Area

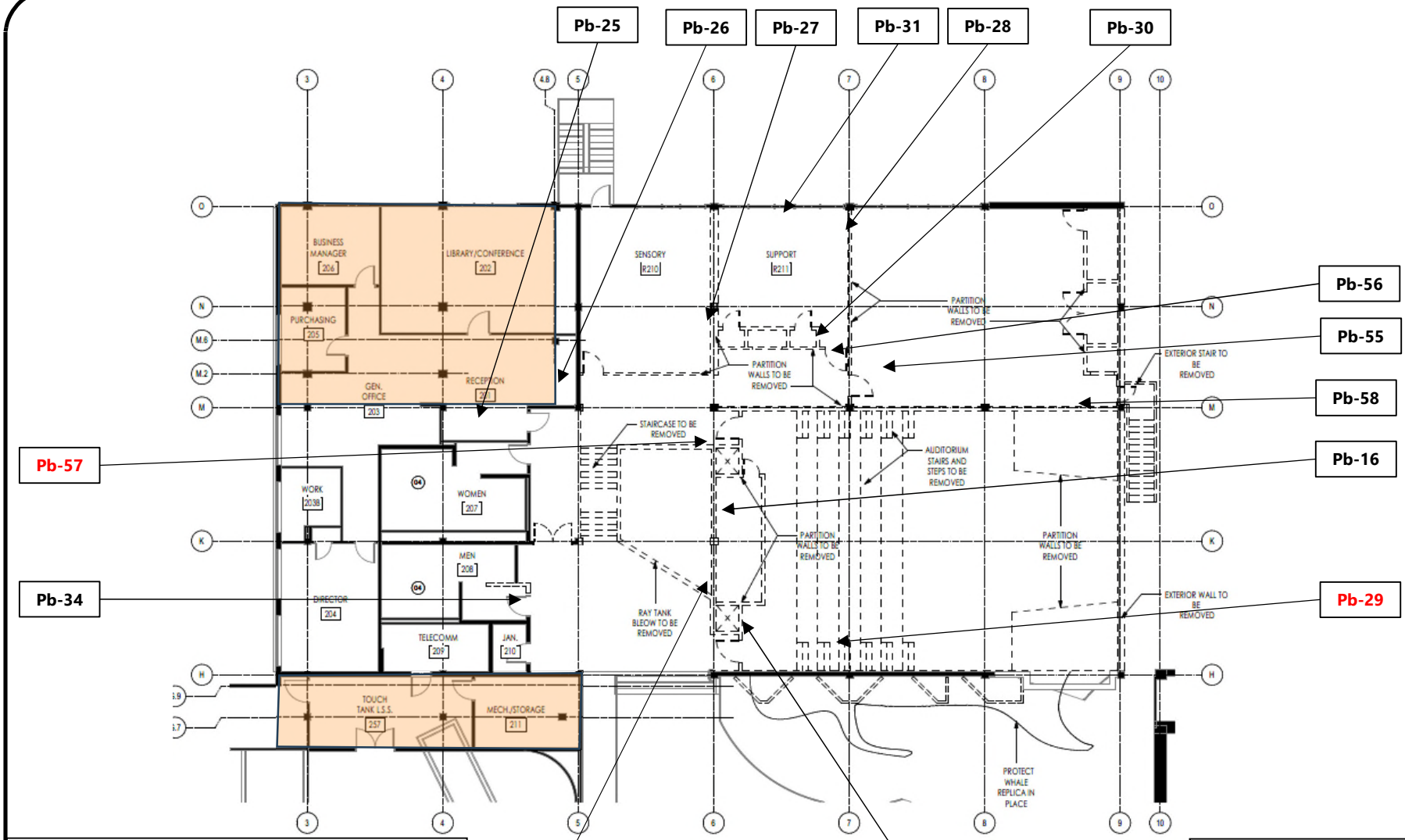
References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Second Floor Demo Plan- Main Entry (AD-1.21 A), dated Sep. 22, 2023.

Lead Sample Locations

1st Floor- South Side
NC Aquarium Fort Fisher Addition and Renovation

SCALE:	NTS
DATE:	2/29/2024
PROJECT NUMBER	23060119
FIGURE NO.	3



LEGEND

Pb-#	Lead-containing Paint Sample Locations
Pb-#	Lead Sample, < Lab Reporting Limit Locations
	2002 Building Expansion

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Second Floor Demo Plan- Main Entry (AD-1.22 B), dated Sep. 22, 2023.

Lead Sample Locations

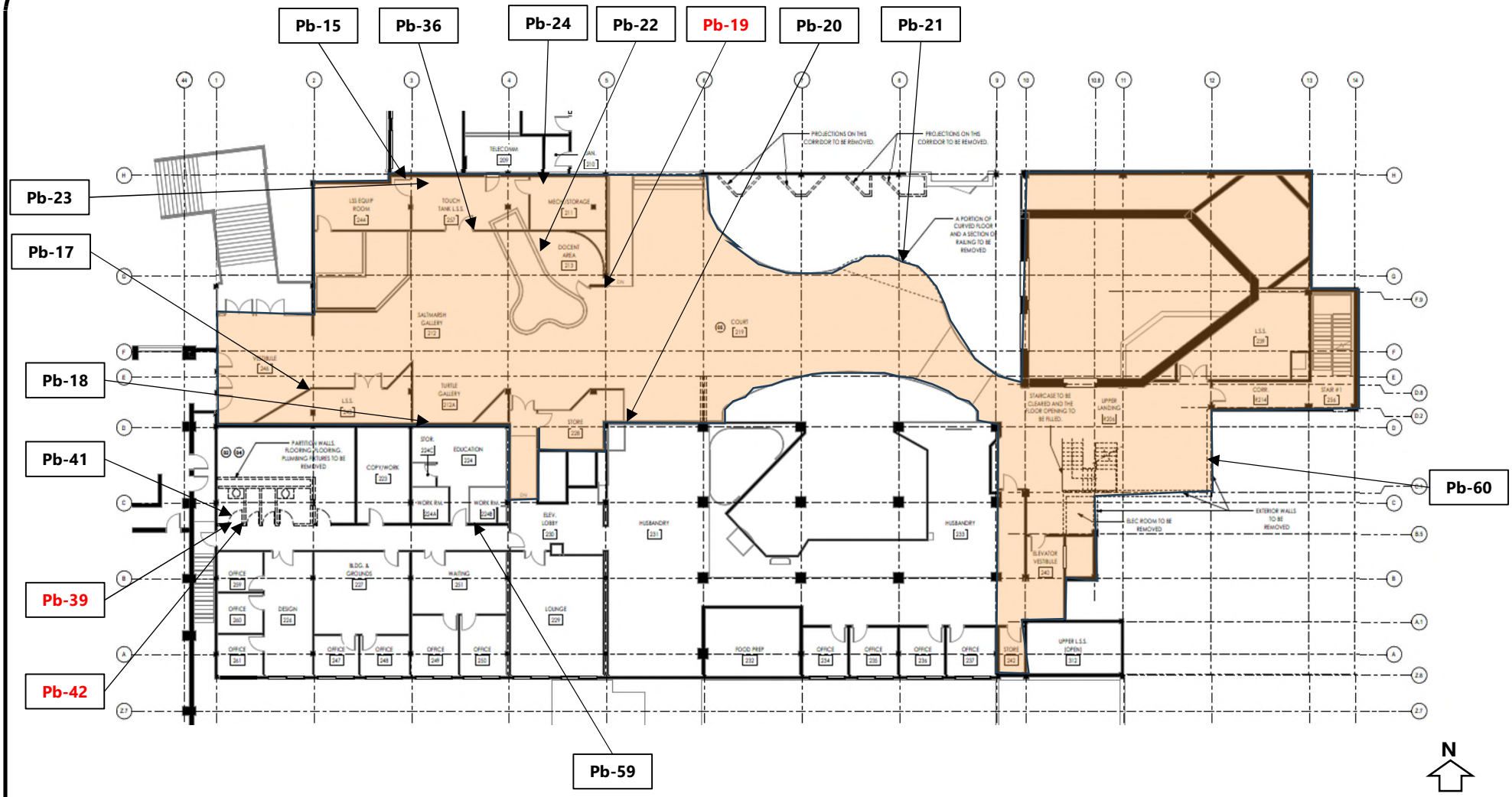
2nd Floor- North Side
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 4



LEGEND

Pb-#	Lead-containing Paint Sample Locations
Pb-#	Lead Sample, < Lab Reporting Limit Locations
	2002 Building Expansion

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Second Floor Demo Plan- Main Entry (AD-1.22 A), dated Sep. 22, 2023.

Lead Sample Locations

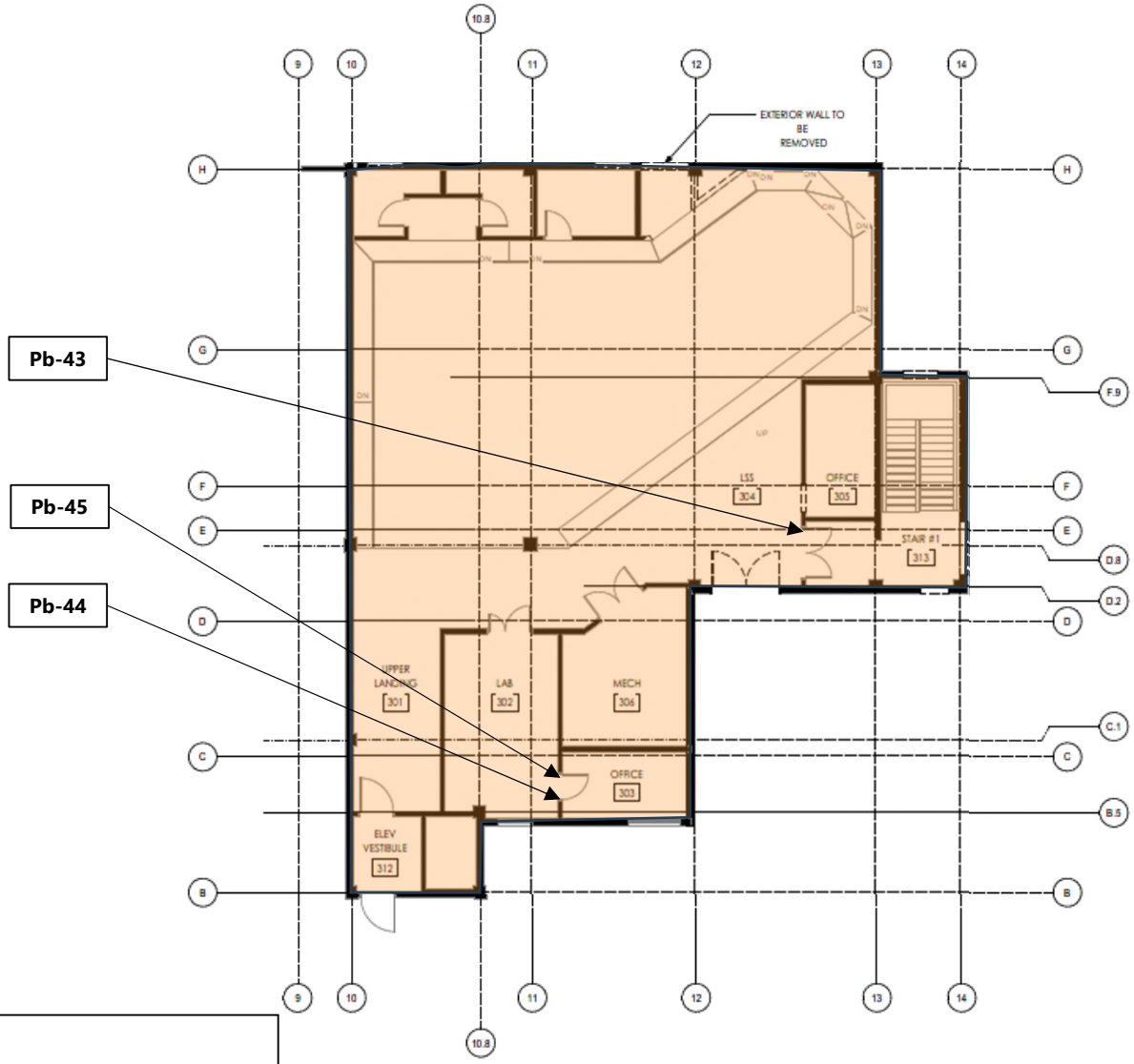
2nd Floor- South Side
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 5



LEGEND

Pb-#	Lead-containing Paint Sample Locations
Pb-#	Lead Sample, < Lab Reporting Limit Locations
	2002 Building Expansion

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Third Floor Demo Plan- Main Entry (AD-1.23 A), dated Sep. 22, 2023.

Lead Sample Locations

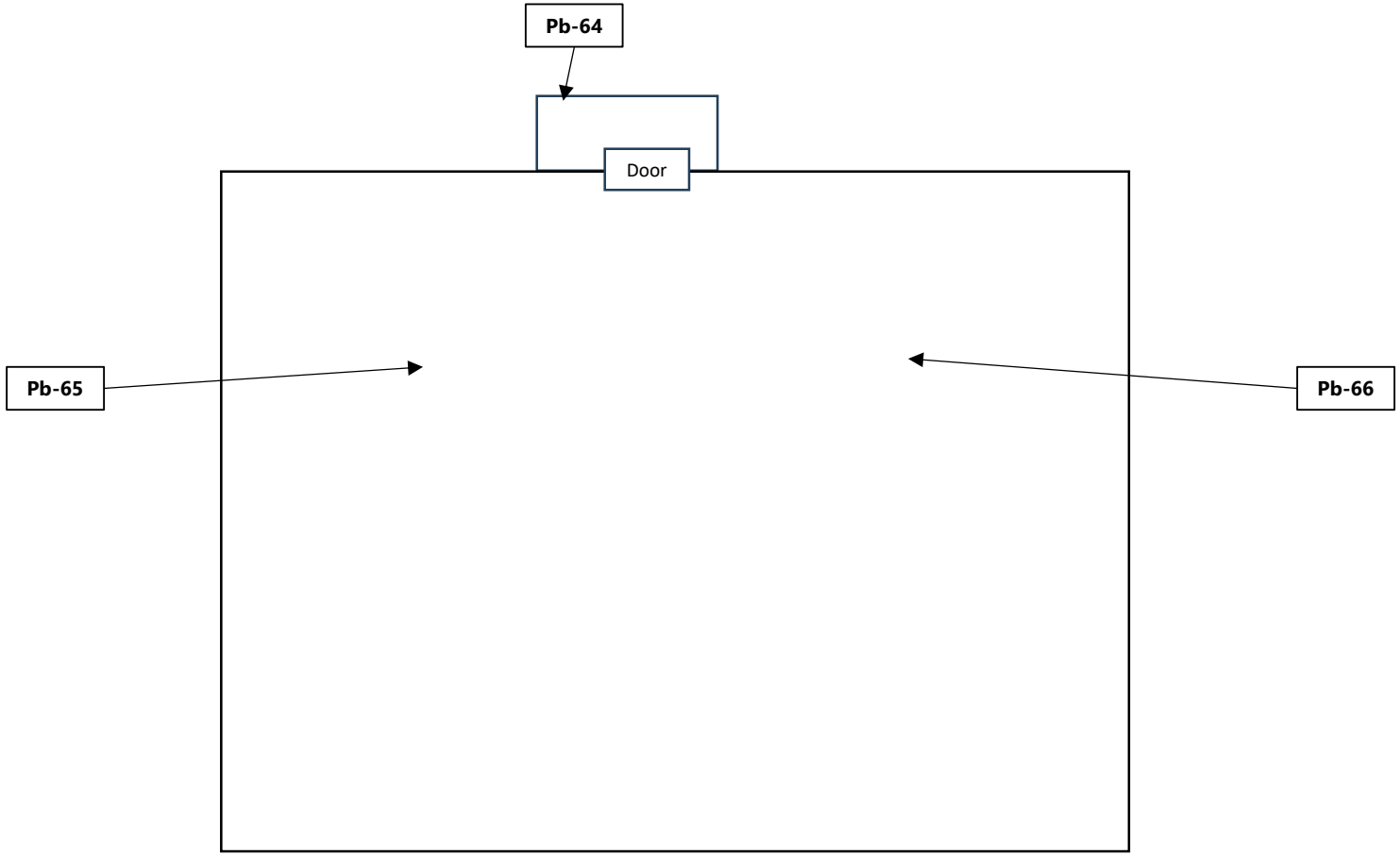
3rd Floor (2002)
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 6



N

LEGEND

Pb-#	Lead-containing Paint Sample Locations
Pb-#	Lead Sample, < Lab Reporting Limit Locations

References:

Building Drawing is a Field Drawing

Lead Sample Locations

Generator Building
NC Aquarium Fort Fisher Addition and Renovation

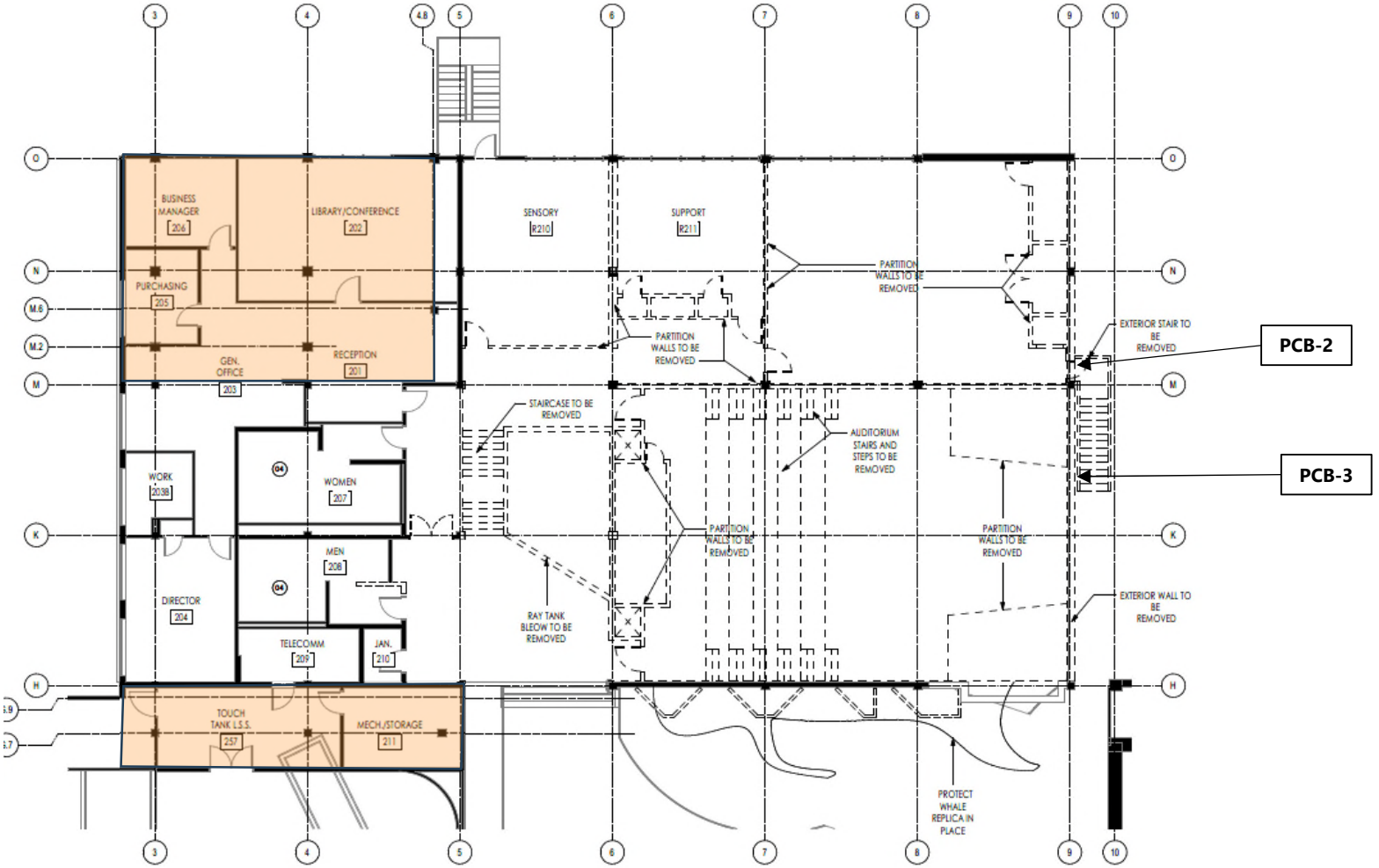
SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 7

Appendix VI –**PCB Caulk Sample Locations**



LEGEND

PCB-#	PCB Caulk Sample, No PCBs Detected at or Above Reporting Limit
	2002 Building Expansion

References:

Building Drawing: Szostak Design, Fort Fisher Aquarium Renovation & Expansion, Second Floor Demo Plan- Main Entry (AD-1.22 B), dated Sep. 22, 2023.

Lead Sample Locations

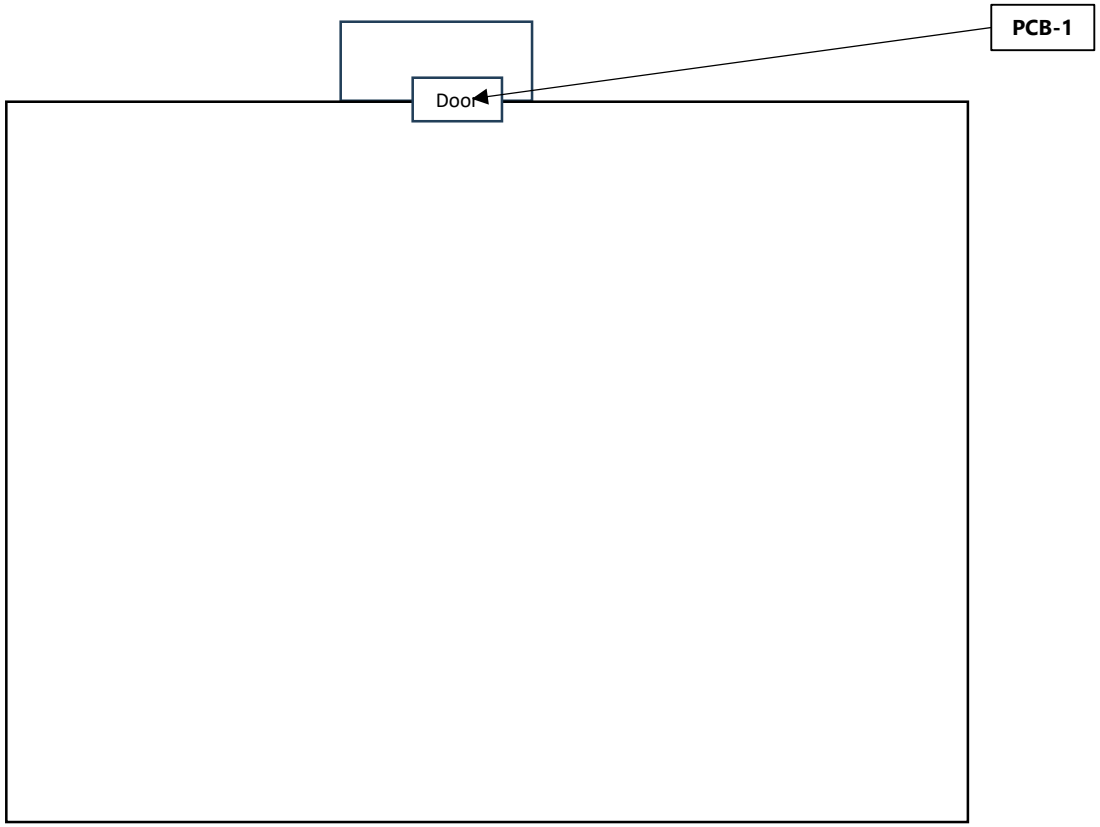
2nd Floor- North Side
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

FIGURE NO. 4



N

LEGEND

PCB-# **PCB Caulk Sample, No PCBs Detected at or Above Reporting Limit**

References:

Building Drawing is a Field Drawing

Lead Sample Locations

Generator Building
NC Aquarium Fort Fisher Addition and Renovation

SCALE: NTS

DATE: 2/29/2024

PROJECT NUMBER 23060119

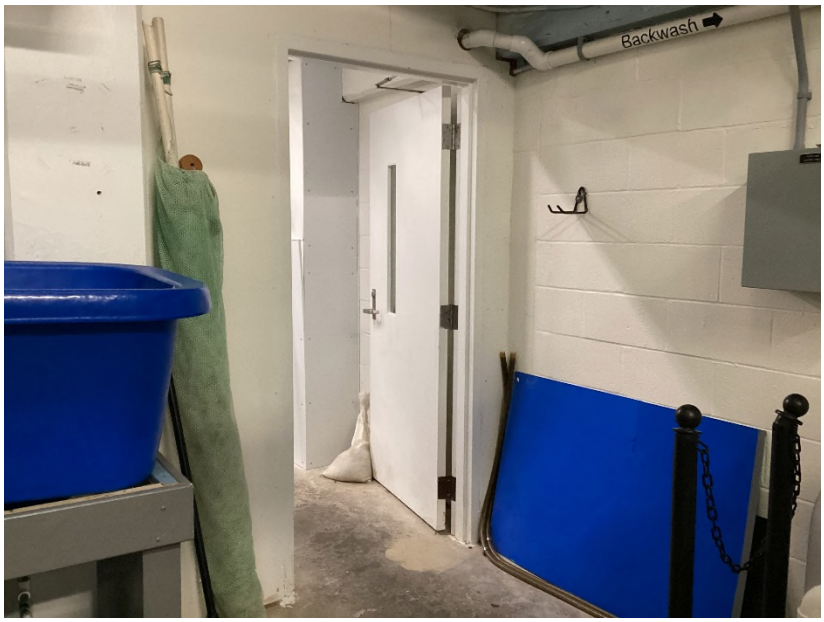
FIGURE NO. 7

Appendix VII – **Photographs of Asbestos-containing Materials**

Entry Building

<table>
<tr><td colspan="2" rowspan="2">  </td><td>1/29/2024</td></tr>
<tr><td>Photographer: Benjamin Best</td></tr>
<tr><td rowspan="2">1</td><td>Location / Material Description</td><td colspan="2">Entry Building / Fire Doors (L)</td></tr>
<tr><td>Remarks</td><td colspan="2">Assumed asbestos containing. This building material is typically not sampled, due to the potential of voiding the warranty.</td></tr>
</table>

Main Exhibit Building, East Wing



Photographer: Benjamin Best | 2/8/2024

2	**Location / Material Description**	Main Exhibit Building, East Wing / Fire Doors (AF)
	Remarks	Assumed asbestos containing. This building material is typically not sampled, due to the potential of voiding the warranty.

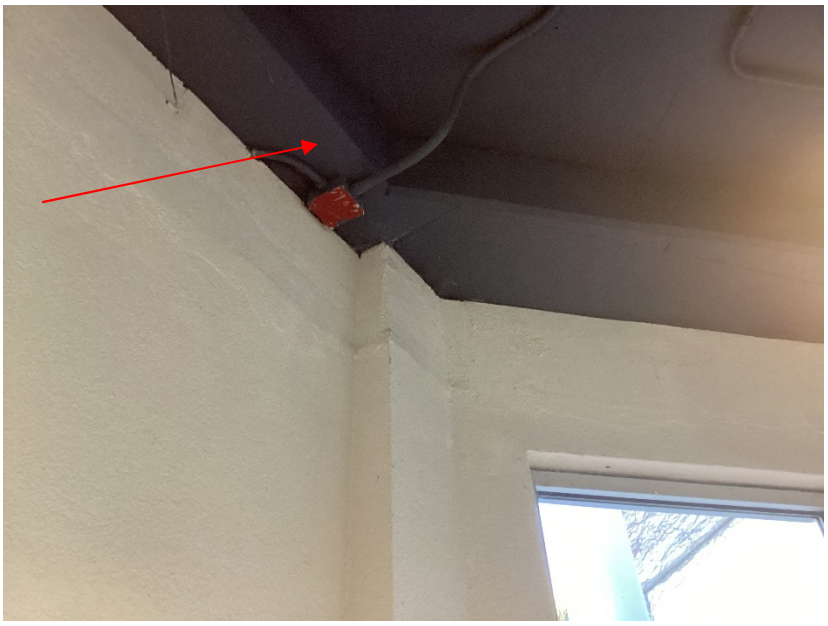
Photographer: Benjamin Best | 2/8/2024

3	**Location / Material Description**	Main Exhibit Building, East Wing / Black Mastic Between Paper and Fiberglass Insulation, 4" Chilled Water Lines (CG, BN)
	Remarks	Laboratory report indicates 5% chrysotile in the mastic.

			2/8/2024 Photographer: Benjamin Best
4	**Location / Material Description**	Main Exhibit Building, East Wing / Black Mastic Between Paper and Fiberglass or Foam Insulation, 6-8" Chilled Water Lines (CN). Black Mastic is Also Present Under Hard Fittings.	
	Remarks	Laboratory report indicates 10% chrysotile in the mastic.	

Appendix VIII **– Photographs of Lead Containing Paint**

Entry Building



1/29/2024

Photographer: Benjamin Best

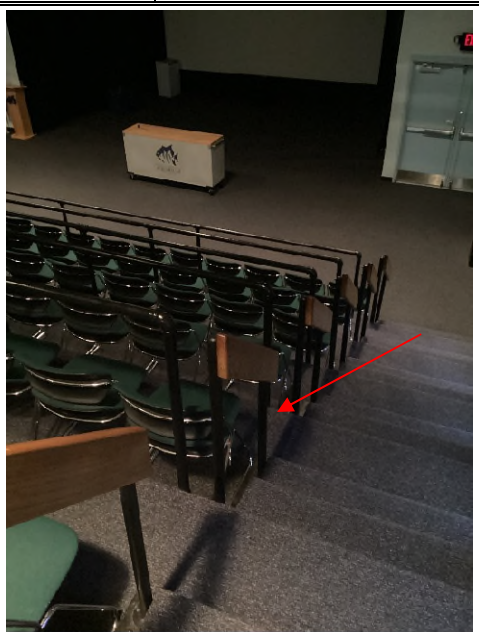
1	**Location / Material Description**	Entry Building / Dark Blue Paint on Ceiling (Pb-10)
	Remarks	**Laboratory Report indicates a lead concentration of 0.0041% by weight.**

Main Exhibit Building, East Wing

1/29/2024

Photographer: Benjamin Best

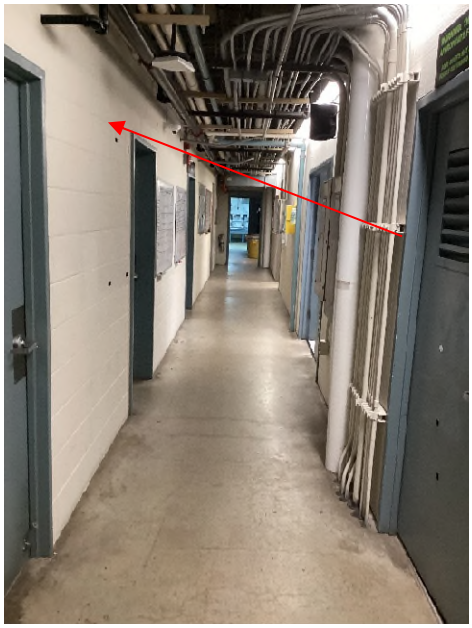
2	**Location / Material Description**	Main Exhibit Building, East Wing / Black Paint on Ceiling (Pb-19)
	Remarks	**Laboratory report indicates a lead concentration of 0.0035% by weight.**



2/8/2024

Photographer: Benjamin Best

3	**Location / Material Description**	Main Exhibit Building, East Wing / Black Paint on Handrails (Pb-29)
	Remarks	**Laboratory Report indicates a lead concentration of 0.0052% by weight.**



2/8/2024

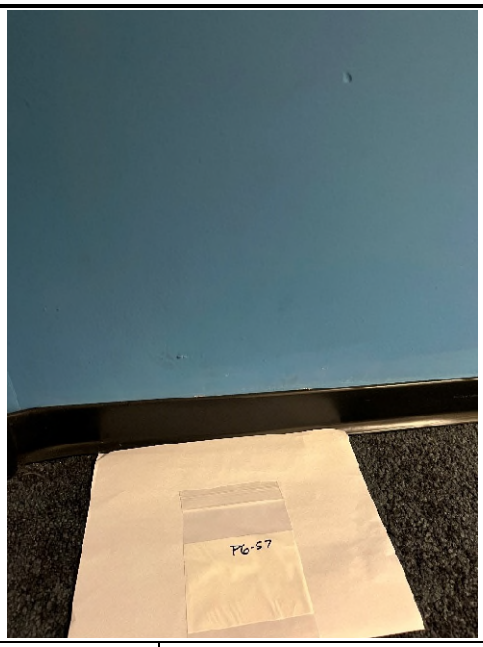
Photographer: Benjamin Best

4	**Location / Material Description**	Main Exhibit Building, East Wing / White Paint on CMU Wall (Pb-39)
	Remarks	**Laboratory report indicates a lead concentration of 0.0091% by weight.**

2/8/2024

Photographer: Benjamin Best

5	**Location / Material Description**	Main Exhibit Building, East Wing / Light Blue Paint on Doors and Frames (Pb-42)
	Remarks	**Laboratory Report indicates a lead concentration of 0.017% by weight.**

<table>
<tr><td colspan="2" rowspan="2"> 
</td><td>2/12/2024</td></tr>
<tr><td>Photographer: Benjamin Best</td></tr>
<tr><td rowspan="2">6</td><td>Location / Material Description</td><td>Main Exhibit Building, East Wing / Dark Blue Paint on Drywall and CMU (Pb-57)</td></tr>
<tr><td>Remarks</td><td>Laboratory report indicates a lead concentration of 0.0047% by weight.</td></tr>
</table>

Appendix IX– **Photographs of PCB Caulk Sampling**

Generator Building

2/13/2024

Photographer: Benjamin Best

1	**Location / Material Description**	Generator Building / Door Caulk (PCB-1)
	Remarks	Laboratory report indicates no PCBs detected.

Main Exhibit Building, East Wing

2/13/2024

Photographer: Benjamin Best

2	**Location / Material Description**	Main Exhibit Building, East Wing / Exterior Door, Window, and Expansion Caulk (PCB-2)
	Remarks	Laboratory report indicates no PCBs detected.

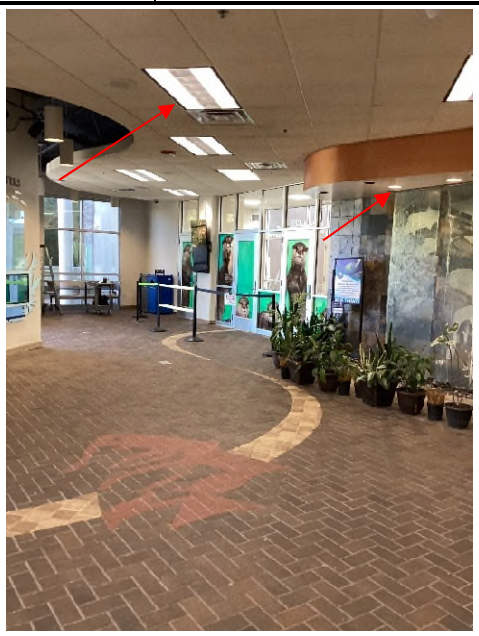
2/13/2024

Photographer: Benjamin Best

3	**Location / Material Description**	Main Exhibit Building, East Wing / Stucco Panel Caulk (PCB-3)
	Remarks	Laboratory report indicates no PCBs detected.

Appendix X – **Photographs of Miscellaneous Hazardous Materials**

Entry Building

			1/29/2024 Photographer: Benjamin Best
1	**Location / Material Description**	Entry Building / Fluorescent Light Fixture (Linear Bulb)	
	Remarks	Typical view of fluorescent light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.	
			1/29/2024 Photographer: Benjamin Best
2	**Location / Material Description**	Entry Building / Fluorescent Light Fixture (U-shape Bulbs)	
	Remarks	Typical view of fluorescent light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.	

1/29/2024

Photographer: Benjamin Best

3	**Location / Material Description**	Entry Building / High Intensity Light Fixture
	Remarks	Typical view of high intensity light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.

1/29/2024

Photographer: Benjamin Best

4	**Location / Material Description**	Entry Building / Exit Signs
	Remarks	Typical view of exit signs that may be connected to backup lead acid batteries.

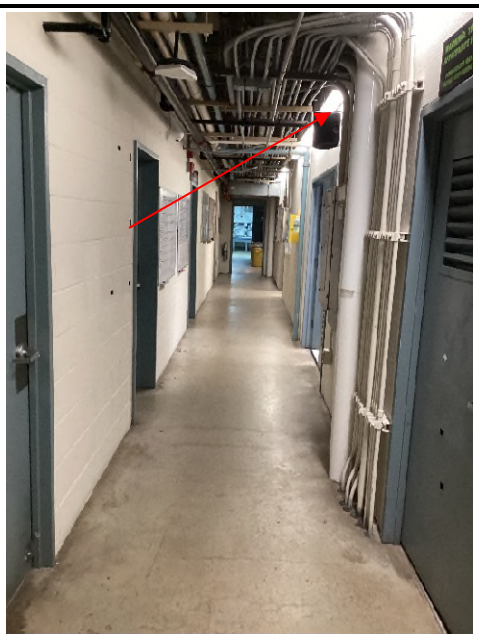
Main Exhibit Building, East Wing

Photographer: Benjamin Best | 1/29/2024

5	**Location / Material Description**	Main Exhibit Building, East Wing / Fluorescent Light Fixture (Linear Bulb)
	Remarks	Typical view of fluorescent light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.

Photographer: Benjamin Best | 1/29/2024

6	**Location / Material Description**	Main Exhibit Building, East Wing / Fluorescent Light Fixture (Linear Bulb)
	Remarks	Typical view of fluorescent light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.



1/29/2024

Photographer: Benjamin Best

7	**Location / Material Description**	Main Exhibit Building, East Wing / Fluorescent Light Fixture (Linear Bulb)
	Remarks	Typical view of fluorescent light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.

1/29/2024

Photographer: Benjamin Best

8	**Location / Material Description**	Main Exhibit Building, East Wing / Fluorescent Light Fixture (Linear Bulb)
	Remarks	Typical view of fluorescent light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.

1/29/2024

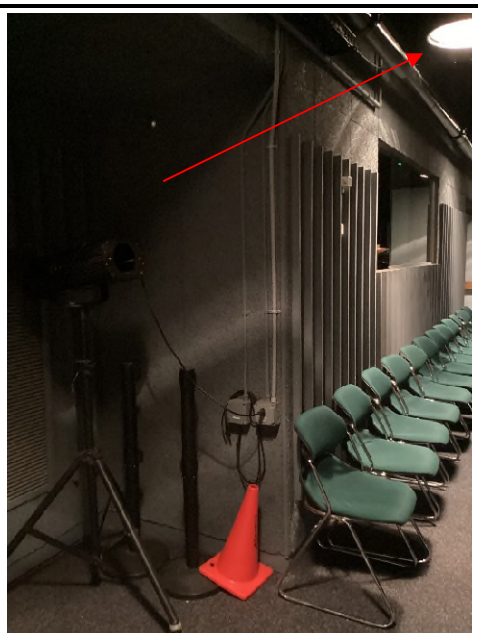
Photographer: Benjamin Best

9	**Location / Material Description**	Main Exhibit Building, East Wing / Fluorescent Light Fixture (U-shape Bulb)
	Remarks	Typical view of fluorescent light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.

1/29/2024

Photographer: Benjamin Best

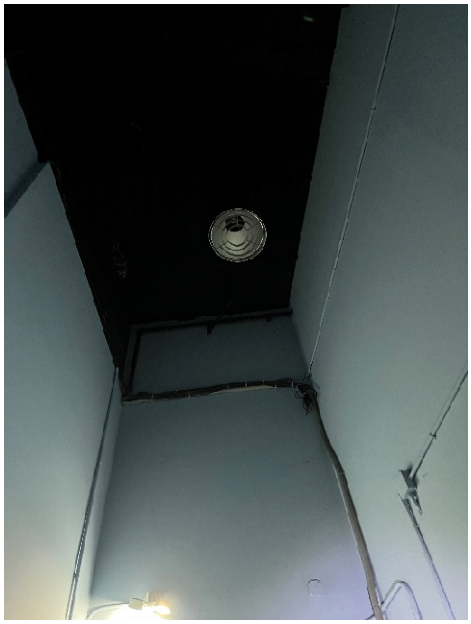
10	**Location / Material Description**	Main Exhibit Building, East Wing / Fluorescent Light Fixture (U-shape Bulb)
	Remarks	Typical view of fluorescent light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.



1/29/2024

Photographer: Benjamin Best

11	**Location / Material Description**	Main Exhibit Building, East Wing (Auditorium)/ High Intensity Light Fixture
	Remarks	Typical view of high intensity light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.



1/29/2024

Photographer: Benjamin Best

12	**Location / Material Description**	Main Exhibit Building, East Wing (Auditorium/Exhibit Area)/ High Intensity Light Fixture
	Remarks	Typical view of high intensity light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.

Photographer: Benjamin Best | 1/29/2024

13	**Location / Material Description**	Main Exhibit Building, East Wing (Boiler Room)/ Fluorescent Light Fixture (linear Bulb)
	Remarks	Fluorescent light bulbs may contain mercury.

Photographer: Benjamin Best | 1/29/2024

14	**Location / Material Description**	Main Exhibit Building, East Wing / High Intensity Light Fixture
	Remarks	Typical view of high intensity light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.

Photographer: Benjamin Best | 1/29/2024

15	**Location / Material Description**	Main Exhibit Building, East Wing / High Intensity Light Fixture
	Remarks	Typical view of high intensity light fixture ballast that may contain PCBs, and fluorescent light bulbs can contain mercury.

Photographer: Benjamin Best | 1/29/2024

16	**Location / Material Description**	Main Exhibit Building, East Wing / Thermostat
	Remarks	Typical view of older thermostats that may contain mercury.

1/29/2024

Photographer: Benjamin Best

17	**Location / Material Description**	Main Exhibit Building, East Wing / Thermostat
	Remarks	Typical view of older thermostats that may contain mercury.

1/29/2024

Photographer: Benjamin Best

18	**Location / Material Description**	Main Exhibit Building, East Wing / HVAC Compressors
	Remarks	Typical view of cooling or refrigeration equipment that may contain chlorofluorohydrocarbons (CFCs).

1/29/2024

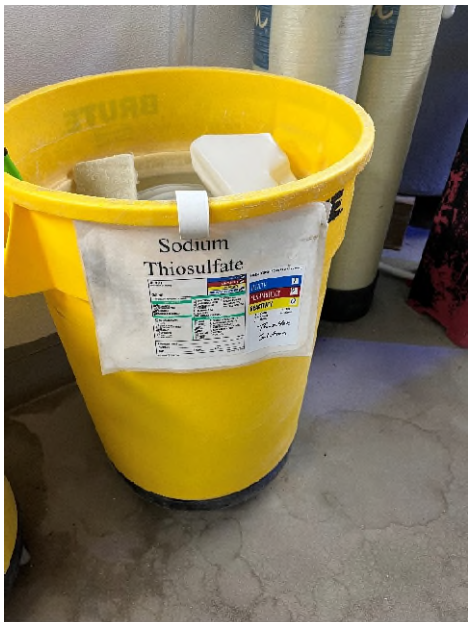
Photographer: Benjamin Best

19	**Location / Material Description**	Main Exhibit Building, East Wing / Exit Signs
	Remarks	Typical view of exit signs that may be connected to backup lead acid batteries.

1/29/2024

Photographer: Benjamin Best

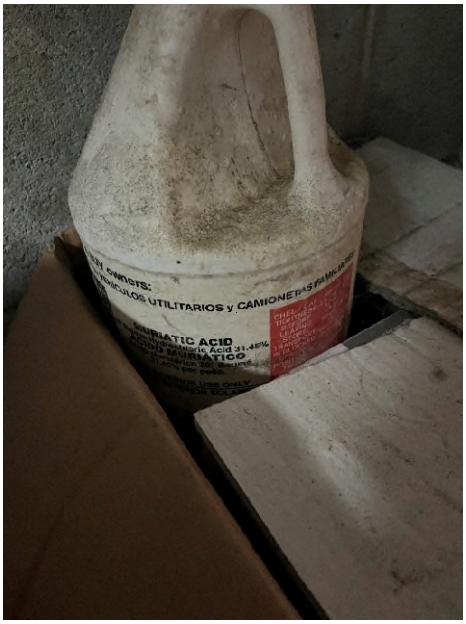
20	**Location / Material Description**	Main Exhibit Building, East Wing / Chlorine Solution
	Remarks	Chlorine Solution was observed in Husbandry 231.



1/29/2024

Photographer: Benjamin Best

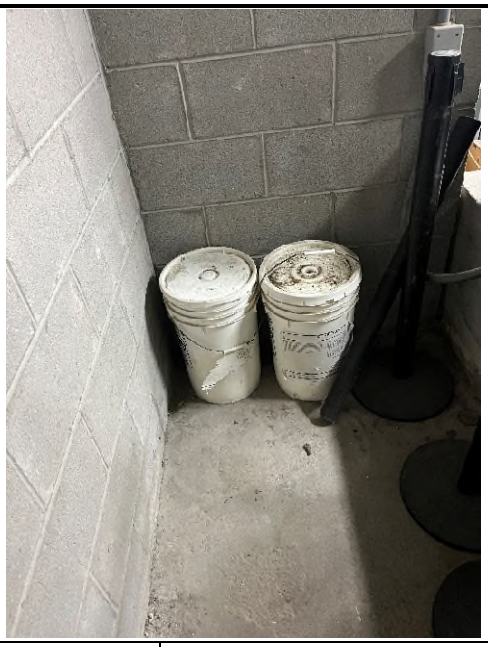
21	**Location / Material Description**	Main Exhibit Building, East Wing / Sodium Thiosulfate Solution
	Remarks	Sodium Thiosulfate Solution was observed in Husbandry 231.



1/29/2024

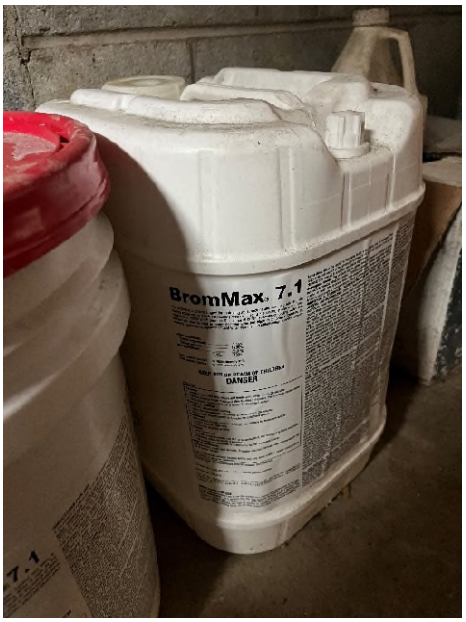
Photographer: Benjamin Best

22	**Location / Material Description**	Main Exhibit Building, East Wing / Muriatic Acid
	Remarks	Muriatic Acid was observed in Mechanical Room 131.



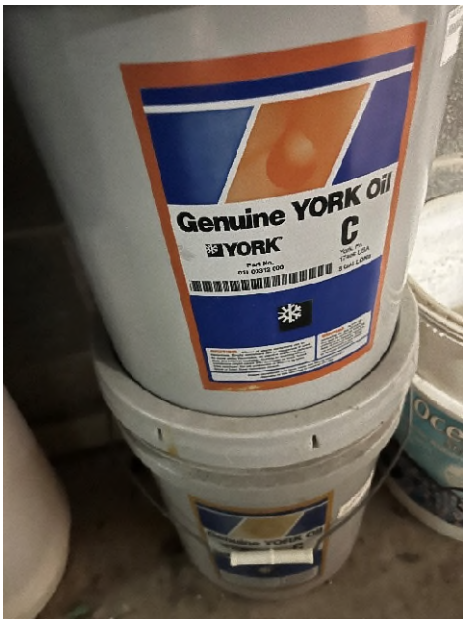
Photographer: Benjamin Best | 1/29/2024

23	**Location / Material Description**	Main Exhibit Building, East Wing / Citric Acid
	Remarks	Citric Acid was observed in Mechanical Room 131.



Photographer: Benjamin Best | 1/29/2024

24	**Location / Material Description**	Main Exhibit Building, East Wing / BromMax
	Remarks	BromMax was observed in Mechanical Room 131.



1/29/2024

Photographer: Benjamin Best

25	**Location / Material Description**	Main Exhibit Building, East Wing / Motor Oil
	Remarks	Motor oil was observed in Mechanical Room 131.

1/29/2024

Photographer: Benjamin Best

26	**Location / Material Description**	Main Exhibit Building, East Wing / Hand Sanitizer
	Remarks	Hand Sanitizer was observed in Mechanical Room 131.

			Photographer: Benjamin Best 1/29/2024
27	**Location / Material Description**	Main Exhibit Building, East Wing / Compressed Air	
	Remarks	Oxygen tanks were observed in Room 305.	
			Photographer: Benjamin Best 1/29/2024
28	**Location / Material Description**	Main Exhibit Building, East Wing / Compressed Air	
	Remarks	Oxygen tanks were observed in Husbandry 134.	

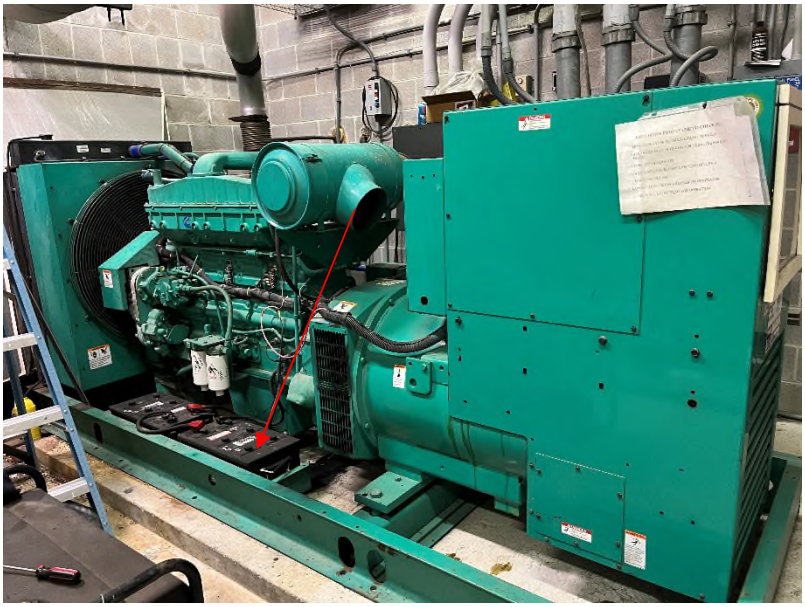
Generator Building

Photographer: Benjamin Best | 1/29/2024

29	**Location / Material Description**	Generator Building / Generators
	Remarks	Generators contain petroleum products such as diesel, coolant, and oil.

Photographer: Benjamin Best | 1/29/2024

30	**Location / Material Description**	Generator Building / Generators
	Remarks	Generators contain petroleum products such as diesel, coolant, and oil.



1/29/2024

Photographer: Benjamin Best

31	**Location / Material Description**	Generator Building / Generators
	Remarks	Generators contain lead acid batteries.

1/29/2024

Photographer: Benjamin Best

32	**Location / Material Description**	Generator Building / Motor Coolant
	Remarks	Three 5-gallon containers of coolant were observed beside the generators.

Appendix XI – **Asbestos Personnel Accreditation**

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK T. BENTON • Deputy Secretary for Health
SUSAN KANSANGRA • Assistant Secretary for Public Health
Division of Public Health

February 26, 2024

Benjamin C Best
501 Long Leaf Acres Dr
Wilmington, NC 28405

Dear Mr. Best:

Based upon the review of your accreditation application, the Health Hazards Control Unit (HHCU) has determined that you have fulfilled the requirements and are eligible for asbestos accreditation as a(n) INSPECTOR. Your assigned North Carolina accreditation number is 12997, which is reflected on your enclosed North Carolina Accreditation card. Please be sure to take this card with you to any asbestos work site where you are employed. The State requires that all persons conducting asbestos abatement or asbestos management activities be accredited and have their identification card on site.

Your North Carolina Inspector accreditation will expire on FEBRUARY 28, 2025. It is NOT the policy of the HHCU to issue renewal notices. If you wish to continue working as a(n) Inspector after this expiration date, you must successfully complete the required training and submit a completed application to this office prior to February 28, 2025. If you should continue to perform asbestos management activities as a(n) Inspector without a valid North Carolina accreditation, you will be in violation of State regulations and may be cited for noncompliance.

Sincerely,

Ed Norman
Program Manager
Health Hazards Control Unit

Appendix XII – **Asbestos Laboratory Results**

Entry Building

eurofins | CEI

February 22, 2024

S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

CLIENT PROJECT: Fort Fisher Aquarium - Entry Bldg.
CEI LAB CODE: B243267

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on February 15, 2024. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,

Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP® TESTING
NVLAP LAB CODE 101768-0

eurofins | CEI

ASBESTOS ANALYTICAL REPORT
By: Polarized Light Microscopy

Prepared for

S&ME

CLIENT PROJECT: Fort Fisher Aquarium - Entry Bldg.

LAB CODE: B243267

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 02/22/24

TOTAL SAMPLES ANALYZED: 41

SAMPLES >1% ASBESTOS:

730 SE Maynard Road • Cary, NC 27511 • 919.481.1413

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Fort Fisher Aquarium - Entry Bldg. **LAB CODE: B243267**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
A-1		B243267.01	Green,Yellow	Carpet Adhesive	None Detected
A-2		B243267.02	Green,Yellow	Carpet Adhesive	None Detected
B-1		B243267.03	White	Cmu Block Wall Coating	None Detected
B-2		B243267.04	White	Cmu Block Wall Coating	None Detected
B-3		B243267.05	White	Cmu Block Wall Coating	None Detected
B-4		B243267.06	White	Cmu Block Wall Coating	None Detected
B-5		B243267.07	White	Cmu Block Wall Coating	None Detected
C-1		B243267.08	White	Ceiling Tile	None Detected
C-2		B243267.09	White	Ceiling Tile	None Detected
D-1		B243267.10A	Black	Covebase	None Detected
		B243267.10B	Off-white	Mastic	None Detected
D-2		B243267.11A	Black	Covebase	None Detected
		B243267.11B	Off-white	Mastic	None Detected
E-1		B243267.12	White	Caulking	None Detected
E-2		B243267.13	White	Caulking	None Detected
F-1		B243267.14	White	Drywall/Joint Compound	None Detected
F-2		B243267.15	White	Drywall/Joint Compound	None Detected
F-3		B243267.16	White	Drywall/Joint Compound	None Detected
F-4		B243267.17	White	Joint Compound	None Detected
F-5		B243267.18	White	Joint Compound	None Detected
G-1		B243267.19	Gray	Caulking	None Detected
G-2		B243267.20	Gray	Caulking	None Detected
H-1		B243267.21	White	Ceiling Tile	None Detected
H-2		B243267.22	White	Ceiling Tile	None Detected
I-1		B243267.23A	Tan	Floor Tile	None Detected
		B243267.23B	Yellow	Mastic	None Detected
I-2		B243267.24A	Tan	Floor Tile	None Detected
		B243267.24B	Yellow	Mastic	None Detected
J-1		B243267.25	Tan	Grout	None Detected
J-2		B243267.26	Tan	Grout	None Detected
K-1		B243267.27	Red,Black	Fire Caulk	None Detected

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Fort Fisher Aquarium - Entry Bldg. **LAB CODE: B243267**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
K-2		B243267.28	Red,Black	Fire Caulk	None Detected
M-1		B243267.29	Gray,White	Stucco	None Detected
M-2		B243267.30	Gray	Stucco	None Detected
M-3		B243267.31	Gray	Stucco	None Detected
M-4		B243267.32	Gray	Stucco	None Detected
M-5		B243267.33	Gray	Stucco	None Detected
N-1		B243267.34	White	Grout	None Detected
N-2		B243267.35	White	Grout	None Detected
O-1		B243267.36	Gray	Grout	None Detected
O-2		B243267.37	Gray	Grout	None Detected
P-1		B243267.38	White	Ceiling Tile	None Detected
P-2		B243267.39	White	Ceiling Tile	None Detected
R-1		B243267.40	White	Ceiling Tile	None Detected
R-2		B243267.41	White	Ceiling Tile	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243267
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Entry Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
A-1 B243267.01	Carpet Adhesive	Homogeneous Green,Yellow Non-fibrous Bound	5%	Synthetic Fiber	95%	Mastic	None Detected
A-2 B243267.02	Carpet Adhesive	Homogeneous Green,Yellow Non-fibrous Bound	5%	Synthetic Fiber	95%	Mastic	None Detected
B-1 B243267.03	Cmu Block Wall Coating	Heterogeneous White Non-fibrous Bound			65% 30% 5%	Binder Silicates Paint	None Detected
B-2 B243267.04	Cmu Block Wall Coating	Heterogeneous White Non-fibrous Bound			65% 30% 5%	Binder Silicates Paint	None Detected
B-3 B243267.05	Cmu Block Wall Coating	Heterogeneous White Non-fibrous Bound			65% 30% 5%	Binder Silicates Paint	None Detected
B-4 B243267.06	Cmu Block Wall Coating	Heterogeneous White Non-fibrous Bound			65% 30% 5%	Binder Silicates Paint	None Detected
B-5 B243267.07	Cmu Block Wall Coating	Heterogeneous White Non-fibrous Bound			65% 30% 5%	Binder Silicates Paint	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243267
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Entry Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
C-1 B243267.08	Ceiling Tile	Heterogeneous White Fibrous Bound	65% 15%	Fiberglass Cellulose	10% 10%	Binder Metal Foil	None Detected
C-2 B243267.09	Ceiling Tile	Heterogeneous White Fibrous Bound	65% 15%	Fiberglass Cellulose	10% 10%	Binder Metal Foil	None Detected
D-1 B243267.10A	Covebase	Homogeneous Black Non-fibrous Bound			100%	Vinyl	None Detected
B243267.10B	Mastic	Homogeneous Off-white Non-fibrous Bound			100%	Mastic	None Detected
D-2 B243267.11A	Covebase	Homogeneous Black Non-fibrous Bound			100%	Vinyl	None Detected
B243267.11B	Mastic	Homogeneous Off-white Non-fibrous Bound			100%	Mastic	None Detected
E-1 B243267.12	Caulking	Homogeneous White Non-fibrous Bound			100%	Caulk	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243267
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Entry Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
E-2 B243267.13	Caulking	Homogeneous White Non-fibrous Bound			100%	Caulk	None Detected
F-1 B243267.14	Drywall/Joint Compound	Heterogeneous White Fibrous Bound	15% 5%	Cellulose Fiberglass	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
F-2 B243267.15	Drywall/Joint Compound	Heterogeneous White Fibrous Bound	15% 5%	Cellulose Fiberglass	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
F-3 B243267.16	Drywall/Joint Compound	Heterogeneous White Fibrous Bound	15% 5%	Cellulose Fiberglass	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
F-4 B243267.17	Joint Compound	Heterogeneous White Non-fibrous Bound	5%	Cellulose	60% 35%	Binder Calc Carb	None Detected
F-5 B243267.18	Joint Compound	Heterogeneous White Non-fibrous Bound	5%	Cellulose	60% 35%	Binder Calc Carb	None Detected
G-1 B243267.19	Caulking	Homogeneous Gray Non-fibrous Bound			100%	Caulk	None Detected

Sample appears to be caulking. No mastic present.

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243267
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Entry Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
G-2 B243267.20	Caulking	Homogeneous Gray Non-fibrous Bound			100%	Caulk	None Detected
Sample appears to be caulking. No mastic present.							
H-1 B243267.21	Ceiling Tile	Heterogeneous White Fibrous Bound	60% 20%	Cellulose Fiberglass	15% 5%	Binder Paint	None Detected
H-2 B243267.22	Ceiling Tile	Heterogeneous White Fibrous Bound	60% 20%	Cellulose Fiberglass	15% 5%	Binder Paint	None Detected
I-1 B243267.23A	Floor Tile	Homogeneous Tan Non-fibrous Bound			100%	Vinyl	None Detected
B243267.23B	Mastic	Homogeneous Yellow Non-fibrous Bound	5%	Cellulose	95%	Mastic	None Detected
I-2 B243267.24A	Floor Tile	Homogeneous Tan Non-fibrous Bound			100%	Vinyl	None Detected
B243267.24B	Mastic	Homogeneous Yellow Non-fibrous Bound	5%	Cellulose	95%	Mastic	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243267
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Entry Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
J-1 B243267.25	Grout	Homogeneous Tan Non-fibrous Bound			65% 35%	Silicates Binder	None Detected
J-2 B243267.26	Grout	Homogeneous Tan Non-fibrous Bound			65% 35%	Silicates Binder	None Detected
K-1 B243267.27	Fire Caulk	Heterogeneous Red,Black Fibrous Bound	10%	Synthetic Fiber	80% 10%	Caulk Binder	None Detected
K-2 B243267.28	Fire Caulk	Heterogeneous Red,Black Fibrous Bound	10%	Synthetic Fiber	80% 10%	Caulk Binder	None Detected
M-1 B243267.29	Stucco	Heterogeneous Gray,White Non-fibrous Bound	5%	Fiberglass	60% 30% 5%	Binder Silicates Paint	None Detected
M-2 B243267.30	Stucco	Heterogeneous Gray Fibrous Bound	5%	Fiberglass	60% 30% 5%	Binder Silicates Paint	None Detected
M-3 B243267.31	Stucco	Heterogeneous Gray Fibrous Bound	5%	Fiberglass	60% 30% 5%	Binder Silicates Paint	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243267
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Entry Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
M-4 B243267.32	Stucco	Heterogeneous Gray Fibrous Bound	5%	Fiberglass	60% 30% 5%	Binder Silicates Paint	None Detected
M-5 B243267.33	Stucco	Heterogeneous Gray Fibrous Bound	5%	Fiberglass	60% 30% 5%	Binder Silicates Paint	None Detected
N-1 B243267.34	Grout	Homogeneous White Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
N-2 B243267.35	Grout	Homogeneous White Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
O-1 B243267.36	Grout	Homogeneous Gray Non-fibrous Bound			65% 35%	Silicates Binder	None Detected
O-2 B243267.37	Grout	Homogeneous Gray Non-fibrous Bound			65% 35%	Silicates Binder	None Detected
P-1 B243267.38	Ceiling Tile	Heterogeneous White Fibrous Bound	60% 20%	Cellulose Fiberglass	15% 5%	Binder Paint	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243267
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Entry Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
P-2 B243267.39	Ceiling Tile	Heterogeneous White Fibrous Bound	60% 20%	Cellulose Fiberglass	15% 5%	Binder Paint	None Detected
R-1 B243267.40	Ceiling Tile	Heterogeneous White Fibrous Bound	95%	Fiberglass	5%	Paint	None Detected
R-2 B243267.41	Ceiling Tile	Heterogeneous White Fibrous Bound	95%	Fiberglass	5%	Paint	None Detected

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LEGEND: Non-Anth = Non-Asbestiform Anthophyllite
Non-Trem = Non-Asbestiform Tremolite
Calc Carb = Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORTING LIMIT: <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

REGULATORY LIMIT: >1% by weight

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID and sample description.

ANALYST: Lauren Schultz

APPROVED BY: Tianbao Bai, Ph.D., CIH
Laboratory Director

Scott Minyard

NVLAP TESTING
NVLAP LAB CODE 101768-0

(41)

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CHAIN OF CUSTODY

730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

LAB USE ONLY:
CEI Lab Code: B243267
CEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #:	Job Contact: Benjamin Best
Company: S&ME	Email / Tel: 910.625.5594
Address: 3006 Hall Waters Drive, Suite 100	Project ID#: Fort Fisher Aquarium - Entry Bldg.
Wilmington, NC 28405	
Email: bbest@smeinc.com	PO #: 23060119
Tel: 910.625.5594 Fax:	STATE SAMPLES COLLECTED IN: NC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	☐	☐	☐	☐	☐	☒
PLM POINT COUNT (400)	EPA 600	☐	☐	☐	☐	☐	☐
PLM POINT COUNT (1000)	EPA 600	☐	☐	☐	☐	☐	☐
PLM GRAV w POINT COUNT	EPA 600		☐	☐	☐	☐	☐
PLM BULK	CARB 435		☐	☐	☐	☐	☐
PCM AIR*	NIOSH 7400	☐	☐	☐	☐	☐	☐
TEM AIR	EPA AHERA	☐	☐	☐	☐	☐	☐
TEM AIR	NIOSH 7402	☐	☐	☐	☐	☐	☐
TEM AIR (PCME)	ISO 10312	☐	☐	☐	☐	☐	☐
TEM AIR	ASTM 6281-15	☐	☐	☐	☐	☐	☐
TEM BULK	CHATFIELD		☐	☐	☐	☐	☐
TEM DUST WIPE	ASTM D6480-05 (2010)	☐	☐	☐	☐	☐	☐
TEM DUST MICROVAC	ASTM D5755-09 (2014)	☐	☐	☐	☐	☐	☐
TEM SOIL	ASTM D7521-16			☐	☐	☐	☐
TEM VERMICULITE	CINCINNATI METHOD			☐	☐	☐	☐
TEM QUALITATIVE	IN-HOUSE METHOD		☐	☐	☐	☐	☐
OTHER:		☐	☐	☐	☐	☐	☐

*Blanks should be taken from the same sample lot as field samples.

REMARKS / SPECIAL INSTRUCTIONS:
Please send results to:bbest@smeinc.com

Send Invoice to: smeinc_invoice@concursolutions.com

BNB
☐ Accept Samples
Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
S&ME Ben Best		BNB	2/15/24 9:40

Samples will be disposed of 30 days after analysis

Version: CCOC.01.18.1/2.LD

2709 9613 9207

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
A-1	Carpet Adhesive		PLM ☐	TEM ☐
A-2	"		PLM ☐	TEM ☐
B-1	CMU Block Wall Coating		PLM ☐	TEM ☐
B-2	↓		PLM ☐	TEM ☐
B-3			PLM ☐	TEM ☐
B-4			PLM ☐	TEM ☐
B-5			PLM ☐	TEM ☐
C-1	Ceiling Tile		PLM ☐	TEM ☐
C-2	"		PLM ☐	TEM ☐
D-1	Cove base mastic		PLM ☐	TEM ☐
D-2	"		PLM ☐	TEM ☐
E-1	Interior Caulk		PLM ☐	TEM ☐
E-2	"		PLM ☐	TEM ☐
F-1	Drywall & Joint Compound		PLM ☐	TEM ☐
F-2	↓		PLM ☐	TEM ☐
F-3			PLM ☐	TEM ☐
F-4	Joint Compound		PLM ☐	TEM ☐
F-5	Joint Compound.		PLM ☐	TEM ☐
G-1	Mastic		PLM ☐	TEM ☐
G-2	Mastic		PLM ☐	TEM ☐
H-1	Ceiling Tile		PLM ☐	TEM ☐
H-2	"		PLM ☐	TEM ☐
I-1	Floor Tile & Mastic.		PLM ☐	TEM ☐
I-2	"		PLM ☐	TEM ☐
J-1	Ceramic Tile Grout		PLM ☐	TEM ☐
J-2	"		PLM ☐	TEM ☐
K-1	Fire Caulk		PLM ☐	TEM ☐
K-2	"		PLM ☐	TEM ☐

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
M-1	Textured (Stucco)		PLM ☐	TEM ☐
M-2	"		PLM ☐	TEM ☐
M-3	"		PLM ☐	TEM ☐
M-4	"		PLM ☐	TEM ☐
M-5	"		PLM ☐	TEM ☐
N-1	Ceramic Tile Grout.		PLM ☐	TEM ☐
N-2	"		PLM ☐	TEM ☐
O-1	Ceramic Tile Grout		PLM ☐	TEM ☐
O-2	"		PLM ☐	TEM ☐
P-1	Ceiling Tile		PLM ☐	TEM ☐
P-2	"		PLM ☐	TEM ☐
BCB Q-1	Exterior Caulk	X	PLM X	TEM X
Q-2			PLM X	TEM X
R-1	Ceiling Tile		PLM ☐	TEM ☐
R-2	"		PLM ☐	TEM ☐
.41 BCB. S-1	Exterior Stucco	X	PLM X	TEM X
			PLM X	TEM X
			PLM X	TEM X
			PLM X	TEM X
			PLM X	TEM X
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐

Main Exhibit Building, East Wing

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February 22, 2024

S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

CLIENT PROJECT: Fort Fisher Aquarium - Main Bldg.
CEI LAB CODE: B243266

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on February 15, 2024. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,

Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP® TESTING
NVLAP LAB CODE 101768-0

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ASBESTOS ANALYTICAL REPORT
By: Polarized Light Microscopy

Prepared for

S&ME

CLIENT PROJECT: Fort Fisher Aquarium - Main Bldg.

LAB CODE: B243266

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 02/22/24

TOTAL SAMPLES ANALYZED: 185

SAMPLES >1% ASBESTOS: 6

730 SE Maynard Road • Cary, NC 27511 • 919.481.1413

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Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Fort Fisher Aquarium - Main Bldg. **LAB CODE: B243266**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
AA-1		B243266.001	Green,Gray	Carpet Adhesive	None Detected
AA-2		B243266.002	Green,Gray	Carpet Adhesive	None Detected
AB-1		B243266.003	Gray	Ceramic Tile Grout	None Detected
AB-2		B243266.004	Gray	Ceramic Tile Grout	None Detected
AC-1	Layer 1	B243266.005	Gray	Ceramic Tile Grout	None Detected
	Layer 2	B243266.005	White	Cementitious Material	None Detected
AC-2	Layer 1	B243266.006	Gray	Ceramic Tile Grout	None Detected
	Layer 2	B243266.006	White	Cementitious Material	None Detected
AD-1		B243266.007	Tan	Carpet Adhesive	None Detected
AD-2		B243266.008	Tan	Carpet Adhesive	None Detected
AE-1		B243266.009A	White,Green	Floor Tile	None Detected
		B243266.009B	Tan	Mastic	None Detected
AE-2		B243266.010A	White,Green	Floor Tile	None Detected
		B243266.010B	Tan	Mastic	None Detected
AG-1		B243266.011A	Off-white,Gray	Floor Tile	None Detected
		B243266.011B	Tan	Mastic	None Detected
AG-2		B243266.012A	Off-white,Gray	Floor Tile	None Detected
		B243266.012B	Tan	Mastic	None Detected
AH-1		B243266.013A	Gray	Floor Tile	None Detected
		B243266.013B	Tan	Mastic	None Detected
AH-2		B243266.014A	Gray	Floor Tile	None Detected
		B243266.014B	Tan	Mastic	None Detected
AI-1		B243266.015	Tan	Carpet Adhesive	None Detected
AI-2		B243266.016	Tan	Carpet Adhesive	None Detected
AJ-1		B243266.017	Brown	Covebase Mastic	None Detected
AJ-2		B243266.018	Brown	Covebase Mastic	None Detected
AK-1		B243266.019A	Gray	Floor Tile	None Detected
		B243266.019B	Tan	Mastic	None Detected
AK-2		B243266.020A	Gray	Floor Tile	None Detected
		B243266.020B	Tan	Mastic	None Detected
AK-3		B243266.021A	Gray	Floor Tile	None Detected

PROJECT: Fort Fisher Aquarium - Main Bldg. **LAB CODE: B243266**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
		B243266.021B	Tan	Mastic	None Detected
AL-1		B243266.022	Tan	Carpet Adhesive	None Detected
AL-2		B243266.023	Tan	Carpet Adhesive	None Detected
AM-1		B243266.024	Tan	Carpet Adhesive	None Detected
AM-2		B243266.025	Tan	Carpet Adhesive	None Detected
AN-1		B243266.026	Gray	Ceramic Tile Grout	None Detected
AN-2		B243266.027	Gray	Ceramic Tile Grout	None Detected
AP-1		B243266.028	Tan	Floor Coating	None Detected
AP-2		B243266.029	Tan	Floor Coating	None Detected
AQ-1		B243266.030	Gray,Yellow	Floor Coating	None Detected
AQ-2		B243266.031	Gray,Yellow	Floor Coating	None Detected
AQ-3		B243266.032	Gray,Yellow	Floor Coating	None Detected
AR-1		B243266.033	Gray,Tan	Floor Coating	None Detected
AR-2		B243266.034	Gray,Tan	Floor Coating	None Detected
AS-1		B243266.035	Gray	Floor Coating	None Detected
AS-2		B243266.036	Gray	Floor Coating	None Detected
AS-3		B243266.037	Gray	Floor Coating	None Detected
AS-4		B243266.038	Gray	Floor Coating	None Detected
AS-5		B243266.039	Gray	Floor Coating	None Detected
AT-1		B243266.040A	Tan,Gray	Vinyl Flooring	None Detected
		B243266.040B	Tan	Mastic	None Detected
AT-2		B243266.041A	Tan,Gray	Vinyl Flooring	None Detected
		B243266.041B	Tan	Mastic	None Detected
AU-1		B243266.042	White,Tan	Drywall/Joint Compound	None Detected
AU-2		B243266.043	White,Tan	Drywall/Joint Compound	None Detected
AU-3		B243266.044	White,Tan	Drywall/Joint Compound	None Detected
AU-4		B243266.045	White,Tan	Drywall/Joint Compound	None Detected
AU-5		B243266.046	White,Tan	Drywall/Joint Compound	None Detected
AU-6		B243266.047	White,Tan	Drywall/Joint Compound	None Detected
AU-7		B243266.048	White,Tan	Drywall/Joint Compound	None Detected
AV-1		B243266.049	White,Tan	Drywall/Joint Compound	None Detected

PROJECT: Fort Fisher Aquarium - Main Bldg. **LAB CODE: B243266**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
AV-2		B243266.050	White,Tan	Drywall/Joint Compound	None Detected
AV-3		B243266.051	White,Tan	Drywall/Joint Compound	None Detected
AV-4		B243266.052	White,Tan	Drywall/Joint Compound	None Detected
AV-5		B243266.053	White,Tan	Drywall/Joint Compound	None Detected
AV-6		B243266.054	White,Tan	Drywall/Joint Compound	None Detected
AV-7		B243266.055	White,Tan	Drywall/Joint Compound	None Detected
AW-1		B243266.056	White,Blue	Wall Coating	None Detected
AW-2		B243266.057	White	Wall Coating	None Detected
AW-3		B243266.058	White	Wall Coating	None Detected
AW-4		B243266.059	White	Wall Coating	None Detected
AW-5		B243266.060	White	Wall Coating	None Detected
AW-6		B243266.061	White	Wall Coating	None Detected
AW-7		B243266.062	White,Gray	Wall Coating	None Detected
AX-1		B243266.063	White,Tan	Wall Coating	None Detected
AX-2		B243266.064	White,Blue	Wall Coating	None Detected
AX-3		B243266.065	White,Green	Wall Coating	None Detected
AX-4		B243266.066	White	Wall Coating	None Detected
AX-5		B243266.067	White	Wall Coating	None Detected
AX-6		B243266.068	White	Wall Coating	None Detected
AX-7		B243266.069	White	Wall Coating	None Detected
AY-1		B243266.070A	Gray,Tan	Epoxy Flooring	None Detected
		B243266.070B	Tan	Mastic	None Detected
AY-2		B243266.071A	Gray,Tan	Epoxy Flooring	None Detected
		B243266.071B	Tan	Mastic	None Detected
AY-3		B243266.072A	Gray,Tan	Epoxy Flooring	None Detected
		B243266.072B	Tan	Mastic	None Detected
BA-1		B243266.073	Gray	Ceramic Tile Grout	None Detected
BA-2		B243266.074	Gray	Ceramic Tile Grout	None Detected
BB-1		B243266.075	White	Ceramic Tile Grout	None Detected
BB-2		B243266.076	White	Ceramic Tile Grout	None Detected
BC-1		B243266.077	Gray	Ceramic Tile Grout	None Detected

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Fort Fisher Aquarium - Main Bldg. **LAB CODE: B243266**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
BC-2		B243266.078	Gray	Ceramic Tile Grout	None Detected
BD-1		B243266.079	Brown	Ceramic Tile Grout	None Detected
BD-2		B243266.080	Brown	Ceramic Tile Grout	None Detected
BE-1		B243266.081	Gray	Ceramic Tile Grout	None Detected
BE-2		B243266.082	Gray	Ceramic Tile Grout	None Detected
BF-1		B243266.083	Tan	Covebase Mastic	None Detected
BF-2		B243266.084	Tan	Covebase Mastic	None Detected
BH-1		B243266.085	White	Wallboard	None Detected
BH-2		B243266.086	White	Wallboard	None Detected
BI-1		B243266.087	Gray,White	Wallboard	None Detected
BI-2		B243266.088	Gray,White	Wallboard	None Detected
BJ-1		B243266.089	Gray,Silver	Ceiling Tile	None Detected
BJ-2		B243266.090	Gray,Silver	Ceiling Tile	None Detected
BK-1		B243266.091	Gray,White	Ceiling Tile	None Detected
BK-2		B243266.092	Gray,White	Ceiling Tile	None Detected
BL-1		B243266.093	White	Ceiling Tile	None Detected
BL-2		B243266.094	White	Ceiling Tile	None Detected
BM-1		B243266.095	Tan,Gray	Wallboard	None Detected
BM-2		B243266.096	Tan,Gray	Wallboard	None Detected
BN-1		B243266.097	Beige	TSI	None Detected
BN-2		B243266.098	Beige	TSI	None Detected
BN-3	Layer 1	B243266.099	Silver,Yellow	TSI	None Detected
	Layer 2	B243266.099	Black	TSI	Chrysotile 5%
BO-1		B243266.100	White	Sink Undercoating	None Detected
BO-2		B243266.101	White	Sink Undercoating	None Detected
BP-1		B243266.102	White	Window Caulking	None Detected
BP-2		B243266.103	White	Window Caulking	None Detected
BQ-1		B243266.104	White	Ceiling Tile	None Detected
BQ-2		B243266.105	White	Ceiling Tile	None Detected
BR-1		B243266.106	Gray	Grout	None Detected
BR-2		B243266.107	Gray	Grout	None Detected

PROJECT: Fort Fisher Aquarium - Main Bldg. **LAB CODE: B243266**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
BS-1		B243266.108	White,Gray	Stucco	None Detected
BS-2		B243266.109	White,Gray	Stucco	None Detected
BS-3		B243266.110	White,Gray	Stucco	None Detected
BT-1		B243266.111	Green,Gray	Carpet Mastic/ Leveling Compound	None Detected
BT-2		B243266.112	Green,Gray	Carpet Mastic/ Leveling Compound	None Detected
BT-3		B243266.113	Green,Gray	Carpet Mastic/ Leveling Compound	None Detected
BU-1		B243266.114	Green,Black	Carpet Mastic	None Detected
BU-2		B243266.115	Green,Black	Carpet Mastic	None Detected
BV-1		B243266.116	White	Leveling Compound	None Detected
BV-2		B243266.117	White	Leveling Compound	None Detected
BW-1		B243266.118A	Tan,Gray	Vinyl Flooring	None Detected
		B243266.118B	Beige	Mastic	None Detected
BW-2		B243266.119	Tan,Gray	Vinyl Flooring	None Detected
BX-1		B243266.120	Tan	Stamped Flooring/ Grout	None Detected
BX-2		B243266.121	Tan	Stamped Flooring/ Grout	None Detected
BY-1	Layer 1	B243266.122	Gray	Vinyl Flooring	None Detected
	Layer 2	B243266.122	Tan,Black	Tarpaper	None Detected
BY-2	Layer 1	B243266.123	Gray	Vinyl Flooring	None Detected
	Layer 2	B243266.123	Tan,Black	Tarpaper	None Detected
BZ-1		B243266.124	White	Textured Ceiling	None Detected
BZ-2		B243266.125	White	Textured Ceiling	None Detected
BZ-3		B243266.126	White	Textured Ceiling	None Detected
CB-1		B243266.127	White,Tan	Ceiling Tile	None Detected
CB-2		B243266.128	White,Tan	Ceiling Tile	None Detected
CC-1		B243266.129	White	Ceiling Tile	None Detected
CC-2		B243266.130	White	Ceiling Tile	None Detected
CD-1		B243266.131	White,Yellow	Ceiling Tile	None Detected
CD-2		B243266.132	White,Yellow	Ceiling Tile	None Detected
CF-1		B243266.133	Gray	Mastic	None Detected

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Fort Fisher Aquarium - Main Bldg. **LAB CODE: B243266**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
CF-2		B243266.134	Gray	Mastic	None Detected
CG-1	Layer 1	B243266.135	Black	Mastic	Chrysotile 5%
	Layer 2	B243266.135	Silver,Tan	Wrap	None Detected
CG-2	Layer 1	B243266.136	Black	Mastic	Chrysotile 5%
	Layer 2	B243266.136	Silver,Tan	Wrap	None Detected
CH-1		B243266.137	Beige	TSI	None Detected
CH-2		B243266.138	Beige	TSI	None Detected
CH-3		B243266.139	Beige	TSI	None Detected
CI-1		B243266.140	Beige	TSI	None Detected
CI-2		B243266.141	Beige	TSI	None Detected
CI-3		B243266.142	Beige	TSI	None Detected
CJ-1		B243266.143	Tan,Gray	Fireproofing	None Detected
CJ-2		B243266.144	Tan,Gray	Fireproofing	None Detected
CJ-3		B243266.145	Tan,Gray	Fireproofing	None Detected
CJ-4		B243266.146	Tan,Gray	Fireproofing	None Detected
CJ-5		B243266.147	Tan,Gray	Fireproofing	None Detected
CK-1		B243266.148	Tan,Gray	Stucco	None Detected
CK-2		B243266.149	Tan,Gray	Stucco	None Detected
CK-3		B243266.150	Tan,Gray	Stucco	None Detected
CK-4		B243266.151	Tan,Gray	Stucco	None Detected
CK-5		B243266.152	Tan,Gray	Stucco	None Detected
CK-6		B243266.153	Tan,Gray	Stucco	None Detected
CK-7		B243266.154	Tan,Gray	Stucco	None Detected
CL-1		B243266.155	Beige	Caulking	None Detected
CL-2		B243266.156	Beige	Caulking	None Detected
CM-1		B243266.157A	White,Blue	Floor Tile	None Detected
		B243266.157B	Yellow	Mastic	None Detected
CM-2		B243266.158A	White,Blue	Floor Tile	None Detected
		B243266.158B	Yellow	Mastic	None Detected
CN-1	Layer 1	B243266.159	Black	TSI	Chrysotile 10%
	Layer 2	B243266.159	Beige	TSI	None Detected

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Fort Fisher Aquarium - Main Bldg. **LAB CODE: B243266**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
	Layer 3	B243266.159	Black	TSI	None Detected
CN-2	Layer 1	B243266.160	Black	TSI	Chrysotile 10%
	Layer 2	B243266.160	Beige	TSI	None Detected
	Layer 3	B243266.160	Black	TSI	None Detected
CN-3	Layer 1	B243266.161	Black	TSI	Chrysotile 10%
	Layer 2	B243266.161	Beige	TSI	None Detected
	Layer 3	B243266.161	Black	TSI	None Detected
CO-1		B243266.162	Beige	TSI	None Detected
CO-2		B243266.163	Beige	TSI	None Detected
CO-3		B243266.164	Beige	TSI	None Detected
CP-1		B243266.165	Beige	Door Caulk	None Detected
CP-2		B243266.166	Beige	Door Caulk	None Detected
CQ-1		B243266.167	Red	Fire Caulk	None Detected
CQ-2		B243266.168	Red	Fire Caulk	None Detected
CS-1		B243266.169	White,Beige	Wallboard	None Detected
CS-2		B243266.170	White,Beige	Wallboard	None Detected
CT-1		B243266.171	Beige	TSI	None Detected
CT-2		B243266.172	Beige	TSI	None Detected
CT-3		B243266.173	Beige	TSI	None Detected
CU-1		B243266.174	Tan	TSI	None Detected
CU-2		B243266.175	Tan	TSI	None Detected
CU-3		B243266.176	Tan	TSI	None Detected
CV-1		B243266.177	Tan,Gray	Stucco	None Detected
CV-2		B243266.178	Tan,Gray	Stucco	None Detected
CV-3		B243266.181	Tan,Gray	Stucco	None Detected
CV-5		B243266.181	Tan,Gray	Stucco	None Detected
CV-4		B243266.182	Tan,Gray	Stucco	None Detected
CV-6		B243266.182	Tan,Gray	Stucco	None Detected
CV-7		B243266.183	Tan,Gray	Stucco	None Detected
CW-1		B243266.184	Tan	Caulking	None Detected
CW-2		B243266.185	Tan	Caulking	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
AA-1 B243266.001	Carpet Adhesive	Heterogeneous Green,Gray Fibrous Bound	5%	Synthetic Fiber	85% 10%	Mastic Binder	None Detected
Samples B243266.001-B243266.092 analyzed by J. Morgan							
AA-2 B243266.002	Carpet Adhesive	Heterogeneous Green,Gray Fibrous Bound	5%	Synthetic Fiber	85% 10%	Mastic Binder	None Detected
AB-1 B243266.003	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
AB-2 B243266.004	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
AC-1 Layer 1 B243266.005	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
Layer 2 B243266.005	Cementitious Material	Heterogeneous White Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
AC-2 Layer 1 B243266.006	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound			65% 35%	Binder Silicates	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
Layer 2 B243266.006	Cementitious Material	Heterogeneous White Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
AD-1 B243266.007	Carpet Adhesive	Heterogeneous Tan Fibrous Bound	5%	Synthetic Fiber	90% 5%	Mastic Binder	None Detected
AD-2 B243266.008	Carpet Adhesive	Heterogeneous Tan Fibrous Bound	5%	Synthetic Fiber	90% 5%	Mastic Binder	None Detected
AE-1 B243266.009A	Floor Tile	Heterogeneous White,Green Non-fibrous Bound			100%	Vinyl	None Detected
B243266.009B	Mastic	Heterogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected
AE-2 B243266.010A	Floor Tile	Heterogeneous White,Green Non-fibrous Bound			100%	Vinyl	None Detected
B243266.010B	Mastic	Heterogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected

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ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous	Non-Fibrous		ASBESTOS %
AG-1 B243266.011A	Floor Tile	Heterogeneous Off-white,Gray Non-fibrous Bound		100%	Vinyl	None Detected
B243266.011B	Mastic	Heterogeneous Tan Non-fibrous Bound		100%	Mastic	None Detected
AG-2 B243266.012A	Floor Tile	Heterogeneous Off-white,Gray Non-fibrous Bound		100%	Vinyl	None Detected
B243266.012B	Mastic	Heterogeneous Tan Non-fibrous Bound		100%	Mastic	None Detected
AH-1 B243266.013A	Floor Tile	Heterogeneous Gray Non-fibrous Bound		100%	Vinyl	None Detected
B243266.013B	Mastic	Heterogeneous Tan Non-fibrous Bound		100%	Mastic	None Detected
AH-2 B243266.014A	Floor Tile	Heterogeneous Gray Non-fibrous Bound		100%	Vinyl	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
B243266.014B	Mastic	Heterogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected
AI-1 B243266.015	Carpet Adhesive	Heterogeneous Tan Fibrous Bound	5%	Synthetic Fiber	90% 5%	Mastic Binder	None Detected
AI-2 B243266.016	Carpet Adhesive	Heterogeneous Tan Fibrous Bound	5%	Synthetic Fiber	90% 5%	Mastic Binder	None Detected
AJ-1 B243266.017	Covebase Mastic	Heterogeneous Brown Non-fibrous Bound			100%	Mastic	None Detected
AJ-2 B243266.018	Covebase Mastic	Heterogeneous Brown Non-fibrous Bound			100%	Mastic	None Detected
AK-1 B243266.019A	Floor Tile	Heterogeneous Gray Non-fibrous Bound			100%	Vinyl	None Detected
B243266.019B	Mastic	Heterogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
AK-2 B243266.020A	Floor Tile	Heterogeneous Gray Non-fibrous Bound			100%	Vinyl	None Detected
B243266.020B	Mastic	Heterogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected
AK-3 B243266.021A	Floor Tile	Heterogeneous Gray Non-fibrous Bound			100%	Vinyl	None Detected
B243266.021B	Mastic	Heterogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected
AL-1 B243266.022	Carpet Adhesive	Heterogeneous Tan Fibrous Bound	5%	Synthetic Fiber	90% 5%	Mastic Binder	None Detected
AL-2 B243266.023	Carpet Adhesive	Heterogeneous Tan Fibrous Bound	5%	Synthetic Fiber	90% 5%	Mastic Binder	None Detected
AM-1 B243266.024	Carpet Adhesive	Heterogeneous Tan Fibrous Bound	5%	Synthetic Fiber	95%	Mastic	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
AM-2 B243266.025	Carpet Adhesive	Heterogeneous Tan Fibrous Bound	5%	Synthetic Fiber	95%	Mastic	None Detected
AN-1 B243266.026	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
AN-2 B243266.027	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
AP-1 B243266.028	Floor Coating	Heterogeneous Tan Non-fibrous Bound			100%	Binder	None Detected
AP-2 B243266.029	Floor Coating	Heterogeneous Tan Non-fibrous Bound			100%	Binder	None Detected
AQ-1 B243266.030	Floor Coating	Heterogeneous Gray,Yellow Non-fibrous Bound			100%	Binder	None Detected
AQ-2 B243266.031	Floor Coating	Heterogeneous Gray,Yellow Non-fibrous Bound			100%	Binder	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous	Non-Fibrous		ASBESTOS %
AQ-3 B243266.032	Floor Coating	Heterogeneous Gray,Yellow Non-fibrous Bound		100%	Binder	None Detected
AR-1 B243266.033	Floor Coating	Heterogeneous Gray,Tan Non-fibrous Bound		100%	Binder	None Detected
AR-2 B243266.034	Floor Coating	Heterogeneous Gray,Tan Non-fibrous Bound		100%	Binder	None Detected
AS-1 B243266.035	Floor Coating	Heterogeneous Gray Non-fibrous Bound		100%	Binder	None Detected
AS-2 B243266.036	Floor Coating	Heterogeneous Gray Non-fibrous Bound		100%	Binder	None Detected
AS-3 B243266.037	Floor Coating	Heterogeneous Gray Non-fibrous Bound		100%	Binder	None Detected
AS-4 B243266.038	Floor Coating	Heterogeneous Gray Non-fibrous Bound		100%	Binder	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
AS-5 B243266.039	Floor Coating	Heterogeneous Gray Non-fibrous Bound			100%	Binder	None Detected
AT-1 B243266.040A	Vinyl Flooring	Heterogeneous Tan,Gray Non-fibrous Bound			100%	Vinyl	None Detected
B243266.040B	Mastic	Heterogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected
AT-2 B243266.041A	Vinyl Flooring	Heterogeneous Tan,Gray Non-fibrous Bound			100%	Vinyl	None Detected
B243266.041B	Mastic	Heterogeneous Tan Non-fibrous Bound			100%	Mastic	None Detected
AU-1 B243266.042	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AU-2 B243266.043	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected

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ASBESTOS BULK PLM, EPA 600 METHOD

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AU-3 B243266.044	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AU-4 B243266.045	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AU-5 B243266.046	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AU-6 B243266.047	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AU-7 B243266.048	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AV-1 B243266.049	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AV-2 B243266.050	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected

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ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
AV-3 B243266.051	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AV-4 B243266.052	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AV-5 B243266.053	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AV-6 B243266.054	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AV-7 B243266.055	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	20%	Cellulose	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AW-1 B243266.056	Wall Coating	Heterogeneous White,Blue Non-fibrous Bound			65% 30% 5%	Binder Silicates Paint	None Detected
AW-2 B243266.057	Wall Coating	Heterogeneous White Non-fibrous Bound			65% 30% 5%	Binder Silicates Paint	None Detected

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ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous	Non-Fibrous		ASBESTOS %
AW-3 B243266.058	Wall Coating	Heterogeneous White Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AW-4 B243266.059	Wall Coating	Heterogeneous White Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AW-5 B243266.060	Wall Coating	Heterogeneous White Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AW-6 B243266.061	Wall Coating	Heterogeneous White Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AW-7 B243266.062	Wall Coating	Heterogeneous White,Gray Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AX-1 B243266.063	Wall Coating	Heterogeneous White,Tan Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AX-2 B243266.064	Wall Coating	Heterogeneous White,Blue Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected

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ASBESTOS BULK PLM, EPA 600 METHOD

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AX-3 B243266.065	Wall Coating	Heterogeneous White,Green Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AX-4 B243266.066	Wall Coating	Heterogeneous White Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AX-5 B243266.067	Wall Coating	Heterogeneous White Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AX-6 B243266.068	Wall Coating	Heterogeneous White Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AX-7 B243266.069	Wall Coating	Heterogeneous White Non-fibrous Bound		65% 30% 5%	Binder Silicates Paint	None Detected
AY-1 B243266.070A	Epoxy Flooring	Heterogeneous Gray,Tan Non-fibrous Bound		100%	Binder	None Detected
B243266.070B	Mastic	Heterogeneous Tan Non-fibrous Bound		90% 10%	Mastic Binder	None Detected

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ASBESTOS BULK PLM, EPA 600 METHOD

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AY-2 B243266.071A	Epoxy Flooring	Heterogeneous Gray,Tan Non-fibrous Bound		100%	Binder	None Detected
B243266.071B	Mastic	Heterogeneous Tan Non-fibrous Bound		90% 10%	Mastic Binder	None Detected
AY-3 B243266.072A	Epoxy Flooring	Heterogeneous Gray,Tan Non-fibrous Bound		100%	Binder	None Detected
B243266.072B	Mastic	Heterogeneous Tan Non-fibrous Bound		90% 10%	Mastic Binder	None Detected
BA-1 B243266.073	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound		65% 35%	Binder Silicates	None Detected
BA-2 B243266.074	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound		65% 35%	Binder Silicates	None Detected
BB-1 B243266.075	Ceramic Tile Grout	Heterogeneous White Non-fibrous Bound		65% 35%	Binder Silicates	None Detected

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ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous	Non-Fibrous		ASBESTOS %
BB-2 B243266.076	Ceramic Tile Grout	Heterogeneous White Non-fibrous Bound		65% 35%	Binder Silicates	None Detected
BC-1 B243266.077	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound		65% 35%	Binder Silicates	None Detected
BC-2 B243266.078	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound		65% 35%	Binder Silicates	None Detected
BD-1 B243266.079	Ceramic Tile Grout	Heterogeneous Brown Non-fibrous Bound		65% 35%	Binder Silicates	None Detected
BD-2 B243266.080	Ceramic Tile Grout	Heterogeneous Brown Non-fibrous Bound		65% 35%	Binder Silicates	None Detected
BE-1 B243266.081	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound		65% 35%	Binder Silicates	None Detected
BE-2 B243266.082	Ceramic Tile Grout	Heterogeneous Gray Non-fibrous Bound		65% 35%	Binder Silicates	None Detected

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ASBESTOS BULK PLM, EPA 600 METHOD

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BF-1 B243266.083	Covebase Mastic	Heterogeneous Tan Non-fibrous Bound			95% 5%	Mastic Binder	None Detected
BF-2 B243266.084	Covebase Mastic	Heterogeneous Tan Non-fibrous Bound			95% 5%	Mastic Binder	None Detected
BH-1 B243266.085	Wallboard	Heterogeneous White Fibrous Bound	50%	Fiberglass	50%	Vinyl	None Detected
BH-2 B243266.086	Wallboard	Heterogeneous White Fibrous Bound	50%	Fiberglass	50%	Vinyl	None Detected
BI-1 B243266.087	Wallboard	Heterogeneous Gray,White Fibrous Bound	55%	Cellulose	40% 5%	Binder Paint	None Detected
BI-2 B243266.088	Wallboard	Heterogeneous Gray,White Fibrous Bound	55%	Cellulose	40% 5%	Binder Paint	None Detected
BJ-1 B243266.089	Ceiling Tile	Heterogeneous Gray,Silver Fibrous Bound	50% 40%	Mineral Wool Fiberglass	10% <1%	Metal Foil Paint	None Detected

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Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
BJ-2 B243266.090	Ceiling Tile	Heterogeneous Gray,Silver Fibrous Bound	50% 40%	Mineral Wool Fiberglass	10% <1%	Metal Foil Paint	None Detected
BK-1 B243266.091	Ceiling Tile	Heterogeneous Gray,White Fibrous Bound	60% 20%	Cellulose Fiberglass	15% 5%	Perlite Paint	None Detected
BK-2 B243266.092	Ceiling Tile	Heterogeneous Gray,White Fibrous Bound	60% 20%	Cellulose Fiberglass	15% 5%	Perlite Paint	None Detected
BL-1 B243266.093	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	60% 20%	Cellulose Fiberglass	15% 5%	Perlite Paint	None Detected
Samples B243266.093-B243266.185 analyzed by Z. Heinz.							
BL-2 B243266.094	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	60% 20%	Cellulose Fiberglass	15% 5%	Perlite Paint	None Detected
BM-1 B243266.095	Wallboard	Heterogeneous Tan,Gray Fibrous Bound	80%	Cellulose	15% 5%	Binder Paint	None Detected
BM-2 B243266.096	Wallboard	Heterogeneous Tan,Gray Fibrous Bound	80%	Cellulose	15% 5%	Binder Paint	None Detected

ASBESTOS BULK ANALYSIS

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ASBESTOS BULK PLM, EPA 600 METHOD

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BN-1 B243266.097	TSI	Heterogeneous Beige Fibrous Bound	15% 10% 5%	Fiberglass Mineral Wool Cellulose	65% 5%	Binder Paint	None Detected
BN-2 B243266.098	TSI	Heterogeneous Beige Fibrous Bound	15% 10% 5%	Fiberglass Mineral Wool Cellulose	65% 5%	Binder Paint	None Detected
BN-3 Layer 1 B243266.099	TSI	Heterogeneous Silver,Yellow Fibrous Bound	40% 10%	Fiberglass Cellulose	50%	Metal Foil	None Detected
Layer 2 B243266.099	TSI	Heterogeneous Black Fibrous Bound	10%	Cellulose	85%	Tar	**5% Chrysotile**
BO-1 B243266.100	Sink Undercoating	Homogeneous White Fibrous Bound	10%	Cellulose	90%	Binder	None Detected
BO-2 B243266.101	Sink Undercoating	Homogeneous White Fibrous Bound	10%	Cellulose	90%	Binder	None Detected
BP-1 B243266.102	Window Caulking	Homogeneous White Non-fibrous Bound			100% <1%	Caulk Paint	None Detected

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BP-2 B243266.103	Window Caulking	Homogeneous White Non-fibrous Bound			100% <1%	Caulk Paint	None Detected
BQ-1 B243266.104	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	50% 45%	Fiberglass Mineral Wool	5%	Paint	None Detected
BQ-2 B243266.105	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	50% 45%	Fiberglass Mineral Wool	5%	Paint	None Detected
BR-1 B243266.106	Grout	Homogeneous Gray Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
BR-2 B243266.107	Grout	Homogeneous Gray Non-fibrous Bound			65% 35%	Binder Silicates	None Detected
BS-1 B243266.108	Stucco	Heterogeneous White,Gray Fibrous Bound	5%	Fiberglass	65% 30% <1%	Binder Silicates Paint	None Detected
BS-2 B243266.109	Stucco	Heterogeneous White,Gray Fibrous Bound	5%	Fiberglass	65% 30% <1%	Binder Silicates Paint	None Detected

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BS-3 B243266.110	Stucco	Heterogeneous White,Gray Fibrous Bound	5%	Fiberglass	65% 30% <1%	Binder Silicates Paint	None Detected
BT-1 B243266.111	Carpet Mastic/ Leveling Compound	Heterogeneous Green,Gray Non-fibrous Bound			80% 20%	Mastic Binder	None Detected
Unable to separate.							
BT-2 B243266.112	Carpet Mastic/ Leveling Compound	Heterogeneous Green,Gray Non-fibrous Bound			80% 20%	Mastic Binder	None Detected
Unable to separate.							
BT-3 B243266.113	Carpet Mastic/ Leveling Compound	Heterogeneous Green,Gray Non-fibrous Bound			80% 20%	Mastic Binder	None Detected
Unable to separate.							
BU-1 B243266.114	Carpet Mastic	Heterogeneous Green,Black Non-fibrous Bound			100%	Mastic	None Detected
Unable to separate mastics.							
BU-2 B243266.115	Carpet Mastic	Heterogeneous Green,Black Non-fibrous Bound			100%	Mastic	None Detected
Unable to separate mastics.							

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BV-1 B243266.116	Leveling Compound	Homogeneous White Non-fibrous Bound		80% 20%	Binder Silicates	None Detected
BV-2 B243266.117	Leveling Compound	Homogeneous White Non-fibrous Bound		80% 20%	Binder Silicates	None Detected
BW-1 B243266.118A	Vinyl Flooring	Heterogeneous Tan,Gray Non-fibrous Bound		100%	Vinyl	None Detected
B243266.118B	Mastic	Homogeneous Beige Non-fibrous Bound		100%	Mastic	None Detected
BW-2 B243266.119	Vinyl Flooring	Heterogeneous Tan,Gray Non-fibrous Bound		100%	Vinyl	None Detected
BX-1 B243266.120	Stamped Flooring/ Grout	Homogeneous Tan Non-fibrous Bound		65% 35%	Binder Silicates	None Detected
BX-2 B243266.121	Stamped Flooring/ Grout	Homogeneous Tan Non-fibrous Bound		65% 35%	Binder Silicates	None Detected

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BY-1	Vinyl Flooring	Heterogeneous			100%	Vinyl	None Detected
Layer 1		Gray					
B243266.122		Non-fibrous					
		Bound					
Layer 2	Tarpaper	Homogeneous	80%	Cellulose	20%	Tar	None Detected
B243266.122		Tan,Black					
		Fibrous					
		Bound					
BY-2	Vinyl Flooring	Heterogeneous			100%	Vinyl	None Detected
Layer 1		Gray					
B243266.123		Non-fibrous					
		Bound					
Layer 2	Tarpaper	Homogeneous	80%	Cellulose	20%	Tar	None Detected
B243266.123		Tan,Black					
		Fibrous					
		Bound					
BZ-1	Textured Ceiling	Heterogeneous			65%	Binder	None Detected
B243266.124		White			30%	Foam	
		Non-fibrous			5%	Paint	
		Bound					
BZ-2	Textured Ceiling	Heterogeneous			65%	Binder	None Detected
B243266.125		White			30%	Foam	
		Non-fibrous			5%	Paint	
		Bound					
BZ-3	Textured Ceiling	Heterogeneous			65%	Binder	None Detected
B243266.126		White			30%	Foam	
		Non-fibrous			5%	Paint	
		Bound					

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Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
CB-1 B243266.127	Ceiling Tile	Heterogeneous White,Tan Fibrous Bound	15% 5%	Cellulose Fiberglass	75% 5%	Gypsum Vinyl	None Detected
CB-2 B243266.128	Ceiling Tile	Heterogeneous White,Tan Fibrous Bound	15% 5%	Cellulose Fiberglass	75% 5%	Gypsum Vinyl	None Detected
CC-1 B243266.129	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	60% 20%	Cellulose Fiberglass	15% 5%	Perlite Paint	None Detected
CC-2 B243266.130	Ceiling Tile	Heterogeneous White Fibrous Loosely Bound	60% 20%	Cellulose Fiberglass	15% 5%	Perlite Paint	None Detected
CD-1 B243266.131	Ceiling Tile	Heterogeneous White,Yellow Fibrous Loosely Bound	95%	Fiberglass	5%	Vinyl	None Detected
CD-2 B243266.132	Ceiling Tile	Heterogeneous White,Yellow Fibrous Loosely Bound	95%	Fiberglass	5%	Vinyl	None Detected
CF-1 B243266.133	Mastic	Homogeneous Gray Non-fibrous Bound			100%	Mastic	None Detected

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CF-2 B243266.134	Mastic	Homogeneous Gray Non-fibrous Bound			100%	Mastic	None Detected
CG-1 Layer 1 B243266.135	Mastic	Homogeneous Black Fibrous Bound	10%	Cellulose	85%	Mastic	5% Chrysotile
Layer 2 B243266.135	Wrap	Heterogeneous Silver,Tan Fibrous Bound	25% 10%	Cellulose Fiberglass	50% 15%	Metal Foil Binder	None Detected
CG-2 Layer 1 B243266.136	Mastic	Homogeneous Black Fibrous Bound	10%	Cellulose	85%	Mastic	5% Chrysotile
Layer 2 B243266.136	Wrap	Heterogeneous Silver,Tan Fibrous Bound	25% 10%	Cellulose Fiberglass	50% 15%	Metal Foil Binder	None Detected
CH-1 B243266.137	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50%	Binder	None Detected
CH-2 B243266.138	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50%	Binder	None Detected

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Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
CH-3 B243266.139	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50%	Binder	None Detected
CI-1 B243266.140	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50%	Binder	None Detected
CI-2 B243266.141	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50%	Binder	None Detected
CI-3 B243266.142	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50%	Binder	None Detected
CJ-1 B243266.143	Fireproofing	Homogeneous Tan,Gray Fibrous Loosely Bound	100%	Cellulose			None Detected
CJ-2 B243266.144	Fireproofing	Homogeneous Tan,Gray Fibrous Loosely Bound	100%	Cellulose			None Detected
CJ-3 B243266.145	Fireproofing	Homogeneous Tan,Gray Fibrous Loosely Bound	100%	Cellulose			None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
CJ-4 B243266.146	Fireproofing	Homogeneous Tan,Gray Fibrous Loosely Bound	100%	Cellulose			None Detected
CJ-5 B243266.147	Fireproofing	Homogeneous Tan,Gray Fibrous Loosely Bound	100%	Cellulose			None Detected
CK-1 B243266.148	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CK-2 B243266.149	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CK-3 B243266.150	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CK-4 B243266.151	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CK-5 B243266.152	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
CK-6 B243266.153	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CK-7 B243266.154	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CL-1 B243266.155	Caulking	Heterogeneous Beige Non-fibrous Bound			100% <1%	Caulk Paint	None Detected
CL-2 B243266.156	Caulking	Heterogeneous Beige Non-fibrous Bound			100% <1%	Caulk Paint	None Detected
CM-1 B243266.157A	Floor Tile	Homogeneous White,Blue Non-fibrous Bound			100%	Vinyl	None Detected
B243266.157B	Mastic	Homogeneous Yellow Non-fibrous Bound			100%	Mastic	None Detected
CM-2 B243266.158A	Floor Tile	Homogeneous White,Blue Non-fibrous Bound			100%	Vinyl	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
B243266.158B	Mastic	Homogeneous Yellow Non-fibrous Bound			100%	Mastic	None Detected
CN-1 Layer 1 B243266.159	TSI	Homogeneous Black Fibrous Bound	5%	Cellulose	85%	Mastic	**10% Chrysotile**
Layer 2 B243266.159	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50%	Binder	None Detected
Layer 3 B243266.159	TSI	Heterogeneous Black Non-fibrous Bound			100%	Foam	None Detected
CN-2 Layer 1 B243266.160	TSI	Homogeneous Black Fibrous Bound	5%	Cellulose	85%	Mastic	**10% Chrysotile**
Layer 2 B243266.160	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50%	Binder	None Detected
Layer 3 B243266.160	TSI	Heterogeneous Black Non-fibrous Bound			100%	Foam	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
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Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
CN-3	TSI	Homogeneous	5%	Cellulose	85%	Mastic	**10% Chrysotile**
Layer 1		Black					
B243266.161		Fibrous					
		Bound					
Layer 2	TSI	Heterogeneous	25%	Fiberglass	50%	Binder	None Detected
B243266.161		Beige	15%	Mineral Wool			
		Fibrous	10%	Cellulose			
		Loosely Bound					
Layer 3	TSI	Heterogeneous			100%	Foam	None Detected
B243266.161		Black					
		Non-fibrous					
		Bound					
CO-1	TSI	Heterogeneous	25%	Fiberglass	50%	Binder	None Detected
B243266.162		Beige	15%	Mineral Wool	<1%	Paint	
		Fibrous	10%	Cellulose			
		Loosely Bound					
CO-2	TSI	Heterogeneous	25%	Fiberglass	50%	Binder	None Detected
B243266.163		Beige	15%	Mineral Wool	<1%	Paint	
		Fibrous	10%	Cellulose			
		Loosely Bound					
CO-3	TSI	Heterogeneous	25%	Fiberglass	50%	Binder	None Detected
B243266.164		Beige	15%	Mineral Wool	<1%	Paint	
		Fibrous	10%	Cellulose			
		Loosely Bound					
CP-1	Door Caulk	Heterogeneous			100%	Caulk	None Detected
B243266.165		Beige			<1%	Paint	
		Non-fibrous					
		Bound					

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
CP-2 B243266.166	Door Caulk	Heterogeneous Beige Non-fibrous Bound			100% <1%	Caulk Paint	None Detected
CQ-1 B243266.167	Fire Caulk	Homogeneous Red Fibrous Bound	10%	Synthetic Fiber	90%	Caulk	None Detected
CQ-2 B243266.168	Fire Caulk	Homogeneous Red Fibrous Bound	10%	Synthetic Fiber	90%	Caulk	None Detected
CS-1 B243266.169	Wallboard	Heterogeneous White,Beige Fibrous Bound	95%	Cellulose	5%	Paint	None Detected
CS-2 B243266.170	Wallboard	Heterogeneous White,Beige Fibrous Bound	95%	Cellulose	5%	Paint	None Detected
CT-1 B243266.171	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50% <1%	Binder Paint	None Detected
CT-2 B243266.172	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50% <1%	Binder Paint	None Detected

ASBESTOS BULK ANALYSIS

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Client: S&ME
3006 Hall Waters Dr. Suite 100
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Lab Code: B243266
Date Received: 02-15-24
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Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
CT-3 B243266.173	TSI	Heterogeneous Beige Fibrous Loosely Bound	25% 15% 10%	Fiberglass Mineral Wool Cellulose	50% <1%	Binder Paint	None Detected
CU-1 B243266.174	TSI	Heterogeneous Tan Non-fibrous Bound			100%	Foam	None Detected
CU-2 B243266.175	TSI	Heterogeneous Tan Non-fibrous Bound			100%	Foam	None Detected
CU-3 B243266.176	TSI	Heterogeneous Tan Non-fibrous Bound			100%	Foam	None Detected
CV-1 B243266.177	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CV-2 B243266.178	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CV-3 B243266.181	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243266
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Main Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
CV-5 B243266.181	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CV-4 B243266.182	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CV-6 B243266.182	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CV-7 B243266.183	Stucco	Heterogeneous Tan,Gray Fibrous Loosely Bound	<1%	Fiberglass	65% 30% 5%	Binder Silicates Paint	None Detected
CW-1 B243266.184	Caulking	Heterogeneous Tan Non-fibrous Bound			100% <1%	Caulk Paint	None Detected
CW-2 B243266.185	Caulking	Heterogeneous Tan Non-fibrous Bound			100% <1%	Caulk Paint	None Detected

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LEGEND: Non-Anth = Non-Asbestiform Anthophyllite
Non-Trem = Non-Asbestiform Tremolite
Calc Carb = Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORTING LIMIT: <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

REGULATORY LIMIT: >1% by weight

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID and sample description.

ANALYST: Jacob Morgan

APPROVED BY: Tianbao Bai, Ph.D., CIH
Laboratory Director

Zane Heinz

NVLAP TESTING
NVLAP LAB CODE 101768-0

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CHAIN OF CUSTODY

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730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

LAB USE ONLY:
CEI Lab Code: B243266
CEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #:	Job Contact: Benjamin Best
Company: S&ME	Email / Tel: 910.625.5594
Address: 3006 Hall Waters Drive, Suite 100	Project ID#: Fort Fisher Aquarium - Main Bldg.
Wilmington, NC 28405	
Email: bbest@smeinc.com	PO #: 23060119
Tel: 910.625.5594 Fax:	STATE SAMPLES COLLECTED IN: NC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	☐	☐	☐	☐	☐	☒
PLM POINT COUNT (400)	EPA 600	☐	☐	☐	☐	☐	☐
PLM POINT COUNT (1000)	EPA 600	☐	☐	☐	☐	☐	☐
PLM GRAV w POINT COUNT	EPA 600		☐	☐	☐	☐	☐
PLM BULK	CARB 435		☐	☐	☐	☐	☐
PCM AIR*	NIOSH 7400	☐	☐	☐	☐	☐	☐
TEM AIR	EPA AHERA	☐	☐	☐	☐	☐	☐
TEM AIR	NIOSH 7402	☐	☐	☐	☐	☐	☐
TEM AIR (PCME)	ISO 10312	☐	☐	☐	☐	☐	☐
TEM AIR	ASTM 6281-15	☐	☐	☐	☐	☐	☐
TEM BULK	CHATFIELD		☐	☐	☐	☐	☐
TEM DUST WIPE	ASTM D6480-05 (2010)	☐	☐	☐	☐	☐	☐
TEM DUST MICROVAC	ASTM D5755-09 (2014)	☐	☐	☐	☐	☐	☐
TEM SOIL	ASTM D7521-16			☐	☐	☐	☐
TEM VERMICULITE	CINCINNATI METHOD			☐	☐	☐	☐
TEM QUALITATIVE	IN-HOUSE METHOD		☐	☐	☐	☐	☐
OTHER:		☐	☐	☐	☐	☐	☐

*Blanks should be taken from the same sample lot as field samples.

REMARKS / SPECIAL INSTRUCTIONS:
Please send results to:bbest@smeinc.com

Send Invoice to: smeinc_invoice@concursolutions.com

BNB
☐ Accept Samples
Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
S&ME / Ben Best	2/14/24 / 1200	BNB	2/15/24 9:40

Samples will be disposed of 30 days after analysis

Page 1 of ____

Version: CCOC.01.18.1/2.LD

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium - main Bldg.	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
AA-1	Carpet Adhesive		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
AB-1	Ceramic Tile Grout		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
AC-1	Ceramic Tile Grout		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
AD-1	Carpet Adhesive		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
AE-1	Floor Tile & Mastic		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
AF	Omit Homogenous Area/No Samples.		PLM ☐	TEM ☐
AG-1	Floor Tile & mastic		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
AH-1	Floor Tile & Mastic		PLM ☐	TEM ☐
-2			PLM ☐	TEM ☐
AI-1	Carpet adhesive		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
AJ-1	Cove base mastic		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
AK-1	Floor Tile & Mastic		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
-3	⊥		PLM ☐	TEM ☐
AL-1	Carpet Adhesive		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
AM-1	Carpet Adhesive		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐
AN-1	Ceramic Tile Grout		PLM ☐	TEM ☐
-2	⊥		PLM ☐	TEM ☐

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium - Main Bldg.	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
AO	Omit Homogenous Area / No Sample.		PLM ☐	TEM ☐
AP-1	~~Spray Primer~~ Floor Coating.		PLM ☐	TEM ☐
-2			PLM ☐	TEM ☐
AQ-1	Floor Coating (Spray-on)		PLM ☐	TEM ☐
-2			PLM ☐	TEM ☐
-3			PLM ☐	TEM ☐
AR-1	Floor Coating		PLM ☐	TEM ☐
-2			PLM ☐	TEM ☐
AS-1	Floor and Wall Coating (Spray-on)		PLM ☐	TEM ☐
-2			PLM ☐	TEM ☐
-3			PLM ☐	TEM ☐
-4			PLM ☐	TEM ☐
-5			PLM ☐	TEM ☐
AT-1	Vinyl Flooring		PLM ☐	TEM ☐
-2			PLM ☐	TEM ☐
AU-1	Drywall & Joint Cmpd. ~~Old~~ (Newer)		PLM ☐	TEM ☐
-2			PLM ☐	TEM ☐
-3			PLM ☐	TEM ☐
-4			PLM ☐	TEM ☐
-5			PLM ☐	TEM ☐
-6			PLM ☐	TEM ☐
-7			PLM ☐	TEM ☐
AV-1	Drywall & Joint Cmpd. (Older)		PLM ☐	TEM ☐
-2			PLM ☐	TEM ☐
-3			PLM ☐	TEM ☐
-4			PLM ☐	TEM ☐
-5			PLM ☐	TEM ☐
-6			PLM ☐	TEM ☐
-7			PLM ☐	TEM ☐

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
AW-1	Cmu Block Wall Coating (Newer)		PLM [X]	TEM [ ]
-2			PLM [ ]	TEM [ ]
-3			PLM [ ]	TEM [ ]
-4			PLM [ ]	TEM [ ]
-5			PLM [ ]	TEM [ ]
-6			PLM [ ]	TEM [ ]
-7			PLM [ ]	TEM [ ]
Ax-1	Cmu Block Wall Coating (older)		PLM [ ]	TEM [ ]
-2			PLM [ ]	TEM [ ]
-3			PLM [ ]	TEM [ ]
-4			PLM [ ]	TEM [ ]
-5			PLM [ ]	TEM [ ]
-6			PLM [ ]	TEM [ ]
-7			PLM [ ]	TEM [ ]
AY-1	Epoxy Flooring		PLM [ ]	TEM [ ]
-2			PLM [ ]	TEM [ ]
-3			PLM [ ]	TEM [ ]
AZ	Omit Homogenous Area / No Samples.		PLM [ ]	TEM [ ]
BA-1	Ceramic Floor tile Grout		PLM [ ]	TEM [ ]
-2			PLM [ ]	TEM [ ]
BB-1	Ceramic Wall tile Grout.		PLM [ ]	TEM [ ]
-2			PLM [ ]	TEM [ ]
BC-1	Ceramic Floor tile Grout.		PLM [ ]	TEM [ ]
-2			PLM [ ]	TEM [ ]
BD-1	Ceramic Floor tile Grout		PLM [ ]	TEM [ ]
-2			PLM [ ]	TEM [ ]
BE-1	Ceramic floor tile Grout.		PLM [ ]	TEM [ ]
-2			PLM [ ]	TEM [ ]

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium - Main Bldg.	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
BF-1	Cove base mastic		PLM ☒	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BG	Omit Homogenous Area / No Samples.		PLM ☐	TEM ☐
BH-1	Wall board		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BI-1	Wall board		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BJ-1	Ceiling Tile		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BK-1	Ceiling Tile		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BL-1	Ceiling Tile.		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BM-1	Wall board.		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BN-1	TSI		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
-3	⏐		PLM ☐	TEM ☐
BO-1	Sink Coating		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BP-1	Interior Window Caulk		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BQ-1	Ceiling Tile		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BR-1	Glass Tile Grout		PLM ☐	TEM ☐
-2	⏐		PLM ☐	TEM ☐
BS-1	Stucco		PLM ☐	TEM ☐
BS-2	⏐		PLM ☐	TEM ☐
BS-3	⏐			

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium - main Bldg.	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
BT-1	Material under Carpet.		PLM ☒	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐
BU-1	Potential Black Mastic under Carpet.		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
BV-1	Leveling Compound		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
BW-1	Vinyl Flooring		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
BX-1	Stamped Flooring / Grout		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
BY-1	Vinyl Flooring		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
BZ-1	Textured ceiling.		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐
CA	Omit Homogenous Area / No Samples.		PLM ☐	TEM ☐
CB-1	Ceiling Tiles		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
CC-1	Ceiling Tiles.		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
CD-1	Ceiling Tiles		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
CE	Omit Homogenous Area / No Samples		PLM ☐	TEM ☐
CF-1	Mastic on HVAC Duct		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
CG-1	Mastic on Fiberglass insulation		PLM ☐	TEM ☐
	↓		PLM ☐	TEM ☐

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium - main Bldg.	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
CH-1	TSI		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐
CI-1	TSI		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐
CJ-1	Fireproofing		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐
-4	↓		PLM ☐	TEM ☐
-5	↓		PLM ☐	TEM ☐
CK-1	Exterior Stucco (older)		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐
-4	↓		PLM ☐	TEM ☐
-5	↓		PLM ☐	TEM ☐
-6	↓		PLM ☐	TEM ☐
-7	↓		PLM ☐	TEM ☐
CL-1	Caulk		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
CM-1	Floor tile and mastic		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
CN-1	TSI		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐
CO-1	TSI		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium - Main Bldg.	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
CP-1	Exterior Door Caulk (older)		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
CQ-1	Fire Caulk		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
CR-1	Omit Homogenous Area / NO Samples		PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
CS-1	Wall board		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
CT-1	TSI		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐
CU-1	TSI		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐
CV-1	Exterior Stucco (newer)		PLM ☐	TEM ☐
-2	↓		PLM ☐	TEM ☐
-3	↓		PLM ☐	TEM ☐
-4	↓		PLM ☐	TEM ☐
-5	↓		PLM ☐	TEM ☐
-6	↓		PLM ☐	TEM ☐
-7	↓		PLM ☐	TEM ☐
CW-1	Caulk		PLM ☐	TEM ☐
-2			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐

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Fort Fisher Aquarium - Main Bldg

CEI - Reporting <cei-reporting@et.eurofinsus.com>
Thu 2/15/2024 1:53 PM

To:Benjamin C. Best <bbest@smeinc.com>
Cc:CEI - Reporting <cei-reporting@et.eurofinsus.com>

INFO: INTERNAL EMAIL - Sent from your own Eurofins email domain.

Good afternoon Benjamin,

As per our hpone call, we will proceed with the extra sample CG-2. Please feel free to reach out with any questions. Thanks for the help!

Sincerely,

William Ivey
Login/Administrative Support Specialist
Eurofins Built Environment Testing – Cary

BUILDING A BETTER CLIENT EXPERIENCE

730 SE Maynard Rd
Cary, NC 27511

Direct: +1 919-481-1413

CEI-Reporting@ET.EurofinsUS.com
www.EurofinsBuiltEnv.com

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Generator Building

eurofins | CEI

February 22, 2024

S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

CLIENT PROJECT: Fort Fisher Aquarium - Generator Bldg.
CEI LAB CODE: B243262

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on February 15, 2024. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,

Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP® TESTING
NVLAP LAB CODE 101768-0

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ASBESTOS ANALYTICAL REPORT
By: Polarized Light Microscopy

Prepared for

S&ME

CLIENT PROJECT: Fort Fisher Aquarium - Generator Bldg.

LAB CODE: B243262

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 02/22/24

TOTAL SAMPLES ANALYZED: 18

SAMPLES >1% ASBESTOS:

730 SE Maynard Road • Cary, NC 27511 • 919.481.1413

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: Fort Fisher Aquarium - Generator Bldg. **LAB CODE: B243262**

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
AAA-1		B243262.01	White	Cmu Block Wall Coating	None Detected
AAA-2		B243262.02	White	Cmu Block Wall Coating	None Detected
AAA-3		B243262.03	White	Cmu Block Wall Coating	None Detected
AAA-4		B243262.04	White	Cmu Block Wall Coating	None Detected
AAA-5		B243262.05	White	Cmu Block Wall Coating	None Detected
AAB-1		B243262.06	White,Tan	Drywall/Joint Compound	None Detected
AAB-2		B243262.07	White,Tan	Drywall/Joint Compound	None Detected
AAB-3		B243262.08	White,Tan	Drywall/Joint Compound	None Detected
AAC-1		B243262.09	Beige	Exterior Caulk	None Detected
AAC-2		B243262.10	Beige	Exterior Caulk	None Detected
AAD-1		B243262.11	White	Interior Caulk On Vents	None Detected
AAD-2		B243262.12	White	Interior Caulk On Vents	None Detected
AAE-1		B243262.13	Gray	Tsi On Generator Muffler	None Detected
AAE-2		B243262.14	Gray,White	Tsi On Generator Muffler	None Detected
AAE-3		B243262.15	White,Gray	Tsi On Generator Muffler	None Detected
AAF-1		B243262.16	White,Pink	Tsi On Floor	None Detected
AAF-2		B243262.17	White,Pink	Tsi On Floor	None Detected
AAF-3		B243262.18	White,Pink	Tsi On Floor	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243262
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Generator Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
AAA-1 B243262.01	Cmu Block Wall Coating	Heterogeneous White Non-fibrous Bound	<1%	Cellulose	90% 10%	Paint Binder	None Detected
AAA-2 B243262.02	Cmu Block Wall Coating	Heterogeneous White Non-fibrous Bound	<1%	Cellulose	90% 10%	Paint Binder	None Detected
AAA-3 B243262.03	Cmu Block Wall Coating	Heterogeneous White Non-fibrous Bound	<1%	Cellulose	90% 10%	Paint Binder	None Detected
AAA-4 B243262.04	Cmu Block Wall Coating	Heterogeneous White Non-fibrous Bound	<1%	Cellulose	90% 10%	Paint Binder	None Detected
AAA-5 B243262.05	Cmu Block Wall Coating	Heterogeneous White Non-fibrous Bound	<1%	Cellulose	90% 10%	Paint Binder	None Detected
AAB-1 B243262.06	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	15% 5%	Cellulose Fiberglass	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AAB-2 B243262.07	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	15% 5%	Cellulose Fiberglass	75% 5% <1%	Gypsum Calc Carb Paint	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243262
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Generator Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
AAB-3 B243262.08	Drywall/Joint Compound	Heterogeneous White,Tan Fibrous Bound	15% 5%	Cellulose Fiberglass	75% 5% <1%	Gypsum Calc Carb Paint	None Detected
AAC-1 B243262.09	Exterior Caulk	Heterogeneous Beige Non-fibrous Bound			100%	Caulk	None Detected
AAC-2 B243262.10	Exterior Caulk	Heterogeneous Beige Non-fibrous Bound			100%	Caulk	None Detected
AAD-1 B243262.11	Interior Caulk On Vents	Heterogeneous White Non-fibrous Bound			100%	Caulk	None Detected
AAD-2 B243262.12	Interior Caulk On Vents	Heterogeneous White Non-fibrous Bound			100%	Caulk	None Detected
AAE-1 B243262.13	Tsi On Generator Muffler	Heterogeneous Gray Fibrous Bound	5%	Fiberglass	65% 30% <1%	Binder Silicates Paint	None Detected
AAE-2 B243262.14	Tsi On Generator Muffler	Heterogeneous Gray,White Fibrous Bound	10% 10%	Fiberglass Cellulose	55% 25% <1%	Binder Silicates Paint	None Detected

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ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: S&ME
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: B243262
Date Received: 02-15-24
Date Analyzed: 02-22-24
Date Reported: 02-22-24

Project: Fort Fisher Aquarium - Generator Bldg.

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
AAE-3 B243262.15	Tsi On Generator Muffler	Heterogeneous White,Gray Fibrous Bound	20% 15%	Cellulose Fiberglass	60% 5% <1%	Binder Silicates Paint	None Detected
AAF-1 B243262.16	Tsi On Floor	Heterogeneous White,Pink Fibrous Bound	5%	Cellulose	95%	Binder	None Detected
AAF-2 B243262.17	Tsi On Floor	Heterogeneous White,Pink Fibrous Bound	5%	Cellulose	95%	Binder	None Detected
AAF-3 B243262.18	Tsi On Floor	Heterogeneous White,Pink Fibrous Bound	5%	Cellulose	95%	Binder	None Detected

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LEGEND: Non-Anth = Non-Asbestiform Anthophyllite
Non-Trem = Non-Asbestiform Tremolite
Calc Carb = Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORTING LIMIT: <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points

REGULATORY LIMIT: >1% by weight

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID and sample description.

ANALYST: Jacob Cox

APPROVED BY: Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP® TESTING
NVLAP LAB CODE 101768-0

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CHAIN OF CUSTODY

730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

LAB USE ONLY:
CEI Lab Code: BZ43262
CEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #:	Job Contact: Benjamin Best
Company: S&ME	Email / Tel: 910.625.5594
Address: 3006 Hall Waters Drive, Suite 100	Project ID#: Fort Fisher Aquarium - Generator Bldg.
Wilmington, NC 28405	
Email: bbest@smeinc.com	PO #: 23060119
Tel: 910.625.5594 Fax:	STATE SAMPLES COLLECTED IN: NC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	☐	☐	☐	☐	☐	☒
PLM POINT COUNT (400)	EPA 600	☐	☐	☐	☐	☐	☐
PLM POINT COUNT (1000)	EPA 600	☐	☐	☐	☐	☐	☐
PLM GRAV w POINT COUNT	EPA 600		☐	☐	☐	☐	☐
PLM BULK	CARB 435		☐	☐	☐	☐	☐
PCM AIR*	NIOSH 7400	☐	☐	☐	☐	☐	☐
TEM AIR	EPA AHERA	☐	☐	☐	☐	☐	☐
TEM AIR	NIOSH 7402	☐	☐	☐	☐	☐	☐
TEM AIR (PCME)	ISO 10312	☐	☐	☐	☐	☐	☐
TEM AIR	ASTM 6281-15	☐	☐	☐	☐	☐	☐
TEM BULK	CHATFIELD		☐	☐	☐	☐	☐
TEM DUST WIPE	ASTM D6480-05 (2010)	☐	☐	☐	☐	☐	☐
TEM DUST MICROVAC	ASTM D5755-09 (2014)	☐	☐	☐	☐	☐	☐
TEM SOIL	ASTM D7521-16			☐	☐	☐	☐
TEM VERMICULITE	CINCINNATI METHOD			☐	☐	☐	☐
TEM QUALITATIVE	IN-HOUSE METHOD		☐	☐	☐	☐	☐
OTHER:		☐	☐	☐	☐	☐	☐

**Blanks should be taken from the same sample lot as field samples.*

REMARKS / SPECIAL INSTRUCTIONS:
Please send results to:bbest@smeinc.com

Send Invoice to: smeinc_invoice@concursolutions.com

BNB
☐ Accept Samples
Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
S&ME/Ben Best	2/14/24, 1700	BNB	2/15/24 9:40

Samples will be disposed of 30 days after analysis

Version: CCOC.01.18.1/2.LD

2709 9613 9267

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium - Generator Bldg.	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
AAA-1	CMU Block Wall Coating		PLM [X]	TEM [ ]
AAA-2	"		PLM [ ]	TEM [ ]
AAA-3	"		PLM [ ]	TEM [ ]
AAA-4	"		PLM [ ]	TEM [ ]
AAA-5	"		PLM [ ]	TEM [ ]
AAB-1	Drywall ? Joint Compound		PLM [ ]	TEM [ ]
AAB-2	"		PLM [ ]	TEM [ ]
AAB-3	"		PLM [ ]	TEM [ ]
AAC-1	Exterior [redacted] Caulk		PLM [ ]	TEM [ ]
AAC-2	"		PLM [ ]	TEM [ ]
AAD-1	Interior Caulk on vents		PLM [ ]	TEM [ ]
AAD-2	"		PLM [ ]	TEM [ ]
AAE-1	TSI on [redacted] Generator Muffler		PLM [ ]	TEM [ ]
AAE-2	"		PLM [ ]	TEM [ ]
AAE-3	"		PLM [ ]	TEM [ ]
AAF-1	TSI on Floor		PLM [ ]	TEM [ ]
AAF-2	"		PLM [ ]	TEM [ ]
AAF-3	"		PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]

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Appendix XIII **– Lead Paint Laboratory Results**

Entry Building

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Eurofins CEI
730 SE Maynard Road
Cary, NC 27511
TEL: 866-481-1412
TEL: 919-481-1413
FAX: 919-481-1442

LABORATORY REPORT
LEAD IN PAINT

Client: **S&ME**
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: L240164
Received: 02-15-24
Analyzed: 02-21-24
Reported: 02-22-24

Project: Fort Fisher Aquarium - Entry Building, 23060119

METHOD: EPA SW846 7000B

CLIENT ID	LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
PB-01	L816	<47	**<0.0047**
PB-02	L817	<35	**<0.0035**
PB-03	L818	<49	**<0.0049**
PB-04	L819	<38	**<0.0038**
PB-05	L820	<47	**<0.0047**
PB-06	L821	<86	**<0.0086**
PB-07	L822	<46	**<0.0046**
PB-08	L823	<15	**<0.0015**
PB-09	L824	<20	**<0.0020**
PB-10	L825	41	**0.0041**

Eurofins CEI
730 SE Maynard Road
Cary, NC 27511

TEL: 866-481-1412
TEL: 919-481-1413
FAX: 919-481-1442

Project: Fort Fisher Aquarium - Entry Building, 23060119

Lab Code: L240164

METHOD: EPA SW846 7000B

CLIENT ID	LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
PB-11	L826	<22	**<0.0022**
PB-12	L827	<24	**<0.0024**
PB-13	L828	<44	**<0.0044**
PB-14 Sample weight below protocol guidelines	L829	<190	**<0.019**
PB-32	L830	<42	**<0.0042**
PB-33	L831	<39	**<0.0039**

Eurofins CEI
730 SE Maynard Road
Cary, NC 27511

TEL: 866-481-1412
TEL: 919-481-1413
FAX: 919-481-1442

Project: Fort Fisher Aquarium - Entry Building, 23060119

Lab Code: L240164

METHOD: EPA SW846 7000B

CLIENT ID	LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT

Reviewed By:

Tianbao Bai, Ph.D.
Laboratory Director

This method has been validated for sample weights of 0.25g or greater. When samples with a weight of less than that are analyzed those results fall outside of the scope of accreditations.
*** The analysis of composite wipe samples as a single samples is not included under AIHA accreditation.**

Minimum reporting limit is 15 µg total lead. Sample results denoted with a “less than” (<) sign contain less than 15.0 µg total lead, based on a 50ml sample volume.

Lead samples are not analyzed by Eurofins CEI Lead samples are submitted to an AIHA ELLAP accredited laboratory for lead analysis of soil, dust, paint, and TCLP samples.
Laboratory results represent the analysis of samples as submitted by the client. Information regarding sample location, description, area, volume, etc., was provided by the client. Unless notified in writing to return samples, Eurofins CEI discards client samples after 30 days. This report shall not be reproduced, except in full, without the written consent of Eurofins CEI.

Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

REGULATORY LIMITS

OSHA Standard: No safe limit.
Consumer Products Safety Standard: Greater than 0.009% lead by weight.
Federal Lead Standard / HUD: 0.5% lead by weight.

LEGEND

µg = microgram
ml = milliliter
ppm = parts per million
Pb = lead
g = grams
wt = weight

End of Report

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CHAIN OF CUSTODY

(16)

730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

LAB USE ONLY:	
CEI Lab Code:	L240164
CEI Lab I.D. Range:	L816- L831

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #:	Job Contact: Benjamin Best
Company: S&ME	Email / Tel: bbest@smeinc.com/910.625.5594
Address: ~~3201 Spring Forest Road~~ 3006 Hall Waters Dr.	Project Name: Fort Fisher AQuarium - Entry Building
~~Raleigh, NC~~ Suite 100, Wilmington, NC	Project ID# 23060119
Email: bbest@smeinc.com	PO #: 23060119
Tel: 910.625.5594 Fax:	STATE SAMPLES COLLECTED IN: NC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

Analyte	METHOD	TURN AROUND TIME					
		4 HR**	8 HR**	1 DAY**	2 DAY	3 DAY	5 DAY
LEAD PAINT	EPA SW846 7000B				☐	☐	☒
LEAD WIPE	EPA SW846 7000B				☐	☐	☐
LEAD SOIL	EPA SW846 7000B				☐	☐	☐
LEAD AIR	EPA SW846 7000B				☐	☐	☐
LEAD TCLP	EPA SW846 7000B				☐	☐	☐
RCRA 8 METALS	EPA SW846 7000B				☐	☐	☐
RCRA 8 TCLP	EPA SW846 7000B				☐	☐	☐
OTHER:					☐	☐	☐

TAT IS NOT AVAILABLE. LEAD SAMPLES ARE SUBCONTRACTED FOR ANALYSIS TO AN ELLAP ACCREDITED LAB.

REMARKS: Send Results : bbest@smeinc.com

Send Invoice : Smeinc_invoice@concursolutions.com.

☒ Accept Samples
☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
S&ME / Ben Best	2-14-24 / 1700	[signature]	02/15/24 9:40

Samples will be disposed of 30 days after analysis

27099613 9267

VERSION PbCOC.0118.1/2.LD
Metals COC Page of

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium - Entry Bldg.	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/AREA	COMMENTS
Pb-01	off-White Paint on Stucco	2"x2"	
Pb-02	light blue Paint on [redacted] CMU		
Pb-03	Orange paint on drywall		
Pb-04	White Paint on drywall		
Pb-05	White Paint on door/door frame		
Pb-06	Yellow Paint on floor		
Pb-07	Gray/light blue paint on drywall		
Pb-08	Tan Ceramic tile		
Pb-09	Green Ceramic tile		
Pb-10	Dark Blue Paint on Ceiling		
Pb-11	Green Ceramic tile		
Pb-12	White Ceramic tile.		
Pb-13	White Paint on Exterior Poles		
Pb-14	Tan Paint on door frame.		
Pb-32	Dark Blue Paint on CMU wall		
Pb-33	White Paint on CMU Walls		

Main Exhibit Building, East Wing

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Eurofins CEI
730 SE Maynard Road
Cary, NC 27511
TEL: 866-481-1412
TEL: 919-481-1413
FAX: 919-481-1442

LABORATORY REPORT
LEAD IN PAINT

Client: **S&ME**
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: L240165
Received: 02-15-24
Analyzed: 02-21-24
Reported: 02-22-24

Project: Fort Fisher Aquarium - East Wing, Main Exhibit Bldg., 23060119

METHOD: EPA SW846 7000B

CLIENT ID	LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
PB-15	L832	<35	**<0.0035**
PB-16	L833	<40	**<0.0040**
PB-17	L834	<49	**<0.0049**
PB-18	L835	<44	**<0.0044**
PB-19	L836	35	**0.0035**
PB-20	L837	<39	**<0.0039**
PB-21	L838	<50	**<0.0050**
PB-22	L839	<46	**<0.0046**
PB-23	L840	<42	**<0.0042**
PB-24	L841	<35	**<0.0035**

Eurofins CEI
730 SE Maynard Road
Cary, NC 27511

TEL: 866-481-1412
TEL: 919-481-1413
FAX: 919-481-1442

Project: Fort Fisher Aquarium - East Wing, Main Exhibit Bldg., 23060119

Lab Code: L240165

METHOD: EPA SW846 7000B

CLIENT ID	LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
PB-25	L842	<40	**<0.0040**
Sample contains substrate, potentially affecting results			
PB-26	L843	<38	**<0.0038**
PB-27	L844	<42	**<0.0042**
PB-28	L845	<49	**<0.0049**
PB-29	L846	52	**0.0052**
PB-30	L847	<38	**<0.0038**
PB-31	L848	<46	**<0.0046**
PB-34	L849	<40	**<0.0040**
PB-35	L850	<35	**<0.0035**
PB-36	L851	<39	**<0.0039**
PB-37	L852	<49	**<0.0049**
PB-38	L853	<38	**<0.0038**
PB-39	L854	91	**0.0091**

Eurofins CEI
730 SE Maynard Road
Cary, NC 27511

TEL: 866-481-1412
TEL: 919-481-1413
FAX: 919-481-1442

Project: Fort Fisher Aquarium - East Wing, Main Exhibit Bldg., 23060119

Lab Code: L240165

METHOD: EPA SW846 7000B

CLIENT ID	LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
PB-40	L855	<45	**<0.0045**
PB-41	L856	<47	**<0.0047**
PB-42	L857	170	**0.017**
PB-43	L858	<39	**<0.0039**
PB-44	L859	<42	**<0.0042**
PB-45	L860	<34	**<0.0034**
PB-46	L861	<41	**<0.0041**
PB-47	L862	<39	**<0.0039**
PB-48	L863	<92	**<0.0092**
PB-49	L864	<40	**<0.0040**
PB-50	L865	<61	**<0.0061**
PB-51	L866	<39	**<0.0039**
PB-52	L867	<45	**<0.0045**

Eurofins CEI
730 SE Maynard Road
Cary, NC 27511

TEL: 866-481-1412
TEL: 919-481-1413
FAX: 919-481-1442

Project: Fort Fisher Aquarium - East Wing, Main Exhibit Bldg., 23060119

Lab Code: L240165

METHOD: EPA SW846 7000B

CLIENT ID	LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
PB-53	L868	<47	**<0.0047**
PB-54	L869	<50	**<0.0050**
PB-55	L870	<50	**<0.0050**
PB-56	L871	<47	**<0.0047**
PB-57	L872	47	**0.0047**
PB-58	L873	<44	**<0.0044**
PB-59	L874	<44	**<0.0044**
PB-60	L875	<36	**<0.0036**
PB-61	L876	<43	**<0.0043**
PB-62	L877	<50	**<0.0050**
PB-63*	L878	<41	**<0.0041**

Eurofins CEI
730 SE Maynard Road
Cary, NC 27511

TEL: 866-481-1412
TEL: 919-481-1413
FAX: 919-481-1442

Project: Fort Fisher Aquarium - East Wing, Main Exhibit Bldg., 23060119

Lab Code: L240165

METHOD: EPA SW846 7000B

CLIENT ID	LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT

Reviewed By:

Tianbao Bai, Ph.D.
Laboratory Director

This method has been validated for sample weights of 0.25g or greater. When samples with a weight of less than that are analyzed those results fall outside of the scope of accreditations.
*** The analysis of composite wipe samples as a single samples is not included under AIHA accreditation.**

Minimum reporting limit is 15 µg total lead. Sample results denoted with a "less than" (<) sign contain less than 15.0 µg total lead, based on a 50ml sample volume.

Lead samples are not analyzed by Eurofins CEI Lead samples are submitted to an AIHA ELLAP accredited laboratory for lead analysis of soil, dust, paint, and TCLP samples.
Laboratory results represent the analysis of samples as submitted by the client. Information regarding sample location, description, area, volume, etc., was provided by the client. Unless notified in writing to return samples, Eurofins CEI discards client samples after 30 days. This report shall not be reproduced, except in full, without the written consent of Eurofins CEI.

Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

REGULATORY LIMITS

OSHA Standard: No safe limit.
Consumer Products Safety Standard: Greater than 0.009% lead by weight.
Federal Lead Standard / HUD: 0.5% lead by weight.

LEGEND

µg = microgram
ml = milliliter
ppm = parts per million
Pb = lead
g = grams
wt = weight

End of Report

A version indicated by 'v' after the Lab ID# with a value greater than 1 indicates an amendment has occurred. The revised sample/description/ID is indicated by an *

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47

730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

LAB USE ONLY:	
CEI Lab Code:	L240165
CEI Lab I.D. Range:	L832 - L878

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #:	Job Contact: Benjamin Best
Company: S&ME	Email / Tel: bbest@smeinc.com/910.625.5594
Address: 3006 Hall Waters Drive, Suite 100	Project Name: Fort Fisher Aquarium- East Wing, Main Exhibit Bldg.
Wilmington, NC	Project ID# 23060119
Email: bbest@smeinc.com	PO #: 23060119
Tel: 910.625.5594 Fax:	STATE SAMPLES COLLECTED IN: NC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

Analyte	METHOD	TURN AROUND TIME					
		4 HR**	8 HR**	1 DAY**	2 DAY	3 DAY	5 DAY
LEAD PAINT	EPA SW846 7000B				☐	☐	☒
LEAD WIPE	EPA SW846 7000B				☐	☐	☐
LEAD SOIL	EPA SW846 7000B				☐	☐	☐
LEAD AIR	EPA SW846 7000B				☐	☐	☐
LEAD TCLP	EPA SW846 7000B				☐	☐	☐
RCRA 8 METALS	EPA SW846 7000B				☐	☐	☐
RCRA 8 TCLP	EPA SW846 7000B				☐	☐	☐
OTHER:					☐	☐	☐

TAT IS NOT AVAILABLE. LEAD SAMPLES ARE SUBCONTRACTED FOR ANALYSIS TO AN ELLAP ACCREDITED LAB.

REMARKS: Send Results to bbest@smeinc.com

Send Invoice to smeinc_invoice@concursolutions.com

☒ Accept Samples
☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
S&ME/Ben Best	2-14-24/1700	[signature]	02/15/24 9:40

Samples will be disposed of 30 days after analysis

27099613 9267

VERSION PbCOC.0118.1/2.LD
Metals COC Page of

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Fort Fisher Aquarium- East Wing, Main Exhibit Bldg.	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/AREA	COMMENTS
Pb-15	White, orange Paint on Cmu Wall		
Pb-16	Dark Blue Paint on Cmu wall		
Pb-17	Turquoise, Gray, Green Paint on Drywall wall		
Pb-18	Grayish Blue Paint on Drywall wall		
Pb-19	Black Paint on Concrete Ceiling		
Pb-20	Blueish Purple Paint on Drywall wall		
Pb-21	Silver Paint on Handrails		
Pb-22	Tan Paint on fiberglass fish tanks		
Pb-23	light Blue Paint on Concrete beam.		
Pb-24	Sea foam Green Paint on Cmu wall		
Pb-25	off-white Paint on drywall.		
Pb-26	off-white, light blue, white Paint on wood Window frame		
Pb-27	Yellow Paint on drywall wall		
Pb-28	Blue Paint on drywall wall.		
Pb-29	Black Paint on metal rails.		
Pb-30	Green Paint on Drywall walls.		
Pb-31	White Paint on wood Window frame		
Pb-34	light Blue, Dark Blue, Yellow, Brown Pain on metal Door frame.		
Pb-35	Yellow Paint on Stucco wall		
Pb-36	White, Gray Paint on metal Door frame.		
Pb-37	Off white Paint on ~~Cmu~~ Drywall wall		
Pb-38	Green, Yellow metal Door frame.		
Pb-39	~~Off~~ White Paint on Cmu wall.		
Pb-40	Dark Grayish ? Yellow Paint of wood ? wall Paneling.		
Pb-41	Turquoise, Purple Paint on drywall wall		
Pb-42	Blue, Red, White Paint on metal Door frame.		
Pb-43	Gray paint on Cmu wall		
Pb-44	light Blue, White Paint on Cmu wall		
Pb-45	White / Gray Paint on metal Door frame.		
Pb-46	White Paint on Cmu wall.		

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Fort Fisher Aquarium- East Wing, Main Exhibit Bldg.	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/AREA	COMMENTS
Pb-47	off-White Paint on Steel beam		
Pb-48	White Paint on metal Duct		
Pb -49	White Paint on Cmu wall		
Pb -50	White Paint on metal Door		
Pb - 51	Blue Paint on Wood Door.		
Pb - 52	White Paint on Wood Door		
Pb-53	tan Paint on Stucco wall	(old)	
Pb-54	tan Paint on Stucco wall	(New)	
Pb-55	Light blue Paint on wood Door		
Pb-56	off white/light blue Paint on metal	Door fame.	
Pb-57	Dark Blue Paint on Drywall		
Pb-58	Light blue, green Paint on Cmu	wall	
Pb-59	Gray paint on Metal Door frame.		
Pb-60	Sky Blue Paint on Cmu wall		
Pb-61	Purple Paint on Cmu wall		
Pb-62	Dark Blue Paint on Cmu wall		
Pb-63	Green Paint on drywall wall		

Generator Building

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Eurofins CEI
730 SE Maynard Road
Cary, NC 27511
TEL: 866-481-1412
TEL: 919-481-1413
FAX: 919-481-1442

LABORATORY REPORT
LEAD IN PAINT

Client: **S&ME**
3006 Hall Waters Dr. Suite 100
Wilmington, NC

Lab Code: L240163
Received: 02-15-24
Analyzed: 02-20-24
Reported: 02-22-24

Project: Fort Fisher Aquarium - Generator Bldg., 23060119

METHOD: EPA SW846 7000B

CLIENT ID	LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
PB-64	L813	<43	**<0.0043**
PB-65	L814	<35	**<0.0035**
PB-66	L815	<39	**<0.0039**

Eurofins CEI
730 SE Maynard Road
Cary, NC 27511

TEL: 866-481-1412
TEL: 919-481-1413
FAX: 919-481-1442

Project: Fort Fisher Aquarium - Generator Bldg., 23060119

Lab Code: L240163

METHOD: EPA SW846 7000B

CLIENT ID	LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT

Reviewed By:

Tianbao Bai, Ph.D.
Laboratory Director

This method has been validated for sample weights of 0.25g or greater. When samples with a weight of less than that are analyzed those results fall outside of the scope of accreditations.
*** The analysis of composite wipe samples as a single samples is not included under AIHA accreditation.**

Minimum reporting limit is 15 µg total lead. Sample results denoted with a “less than” (<) sign contain less than 15.0 µg total lead, based on a 50ml sample volume.

Lead samples are not analyzed by Eurofins CEI Lead samples are submitted to an AIHA ELLAP accredited laboratory for lead analysis of soil, dust, paint, and TCLP samples.
Laboratory results represent the analysis of samples as submitted by the client. Information regarding sample location, description, area, volume, etc., was provided by the client. Unless notified in writing to return samples, Eurofins CEI discards client samples after 30 days. This report shall not be reproduced, except in full, without the written consent of Eurofins CEI.

Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

REGULATORY LIMITS

OSHA Standard: No safe limit.
Consumer Products Safety Standard: Greater than 0.009% lead by weight.
Federal Lead Standard / HUD: 0.5% lead by weight.

LEGEND

µg = microgram
ml = milliliter
ppm = parts per million
Pb = lead
g = grams
wt = weight

End of Report

3

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730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

LAB USE ONLY:	
CEI Lab Code:	L240163
CEI Lab I.D. Range:	L813- L815

COMPANY INFORMATION		PROJECT INFORMATION
CEI CLIENT #:		Job Contact: Benjamin Best
Company: S&ME		Email / Tel: bbest@smeinc.com/910.625.5594
Address: ~~3201 Spring Forest Road~~	3006 Hall Waters Dr.	Project Name: Fort Fisher Aquarium - Generator Bldg.
~~Raleigh, NC~~	Suite 100, Wilmington, NC	Project ID# 23060119
Email: bbest@smeinc.com		PO #: 23060119
Tel: 910.625.5594	Fax:	STATE SAMPLES COLLECTED IN: NC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

Analyte	METHOD	TURN AROUND TIME					
		4 HR**	8 HR**	1 DAY**	2 DAY	3 DAY	5 DAY
LEAD PAINT	EPA SW846 7000B				☐	☐	☒
LEAD WIPE	EPA SW846 7000B				☐	☐	☐
LEAD SOIL	EPA SW846 7000B				☐	☐	☐
LEAD AIR	EPA SW846 7000B				☐	☐	☐
LEAD TCLP	EPA SW846 7000B				☐	☐	☐
RCRA 8 METALS	EPA SW846 7000B				☐	☐	☐
RCRA 8 TCLP	EPA SW846 7000B				☐	☐	☐
OTHER:					☐	☐	☐

TAT IS NOT AVAILABLE. LEAD SAMPLES ARE SUBCONTRACTED FOR ANALYSIS TO AN ELLAP ACCREDITED LAB.

REMARKS: Send Results to bbest@smeinc.com

Send invoice to: Smeinc_invoice@ConcurSolutions.com

☒ Accept Samples
☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
S&ME / Ben Best	2/14/24 . 1700		02/15/24 9:40

Samples will be disposed of 30 days after analysis

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2709 9613 9267

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SAMPLING FORM

COMPANY CONTACT INFORMATION	
Company: S&ME	Job Contact: Benjamin Best
Project Name: Fort Fisher Aquarium - Generator Building	
Project ID #: 23060119	Tel: 910.625.5594

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/AREA	COMMENTS
Pb-64	White Exterior Paint		
Pb-65	Green Generator Paint		
Pb-66	Yellow Generator Paint.		

Appendix XIV – **PCB Caulk Laboratory Results**

Main Exhibit Building, East Wing
and
Generator Building

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

February 22, 2024

Benjamin Best
S&ME, Inc.
3006 Hall Waters Drive
Suite 100
Wilmington, NC 28405

RE: Project: FORT FISHER AQUARIUM
Pace Project No.: 92713323

Dear Benjamin Best:

Enclosed are the analytical results for sample(s) received by the laboratory on February 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
612-473-6801
Project Manager

Enclosures

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: FORT FISHER AQUARIUM
Pace Project No.: 92713323

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: FORT FISHER AQUARIUM
Pace Project No.: 92713323

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92713323001	**PCB-1**	EPA 8082A	BAJ	8	PASI-C
		SW-846	CHC	1	PASI-C
92713323002	**PCB-2**	EPA 8082A	BAJ	8	PASI-C
		SW-846	CHC	1	PASI-C
92713323003	**PCB-3**	EPA 8082A	BAJ	8	PASI-C
		SW-846	CHC	1	PASI-C

PASI-C = Pace Analytical Services - Charlotte

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FORT FISHER AQUARIUM
Pace Project No.: 92713323

Sample: PCB-1 **Lab ID: 92713323001** Collected: 02/13/24 12:00 Received: 02/13/24 15:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546 Pace Analytical Services - Charlotte							
PCB-1016 (Aroclor 1016)	ND	ug/kg	1690	20	02/20/24 12:23	02/21/24 23:12	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	1690	20	02/20/24 12:23	02/21/24 23:12	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	1690	20	02/20/24 12:23	02/21/24 23:12	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	1690	20	02/20/24 12:23	02/21/24 23:12	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	1690	20	02/20/24 12:23	02/21/24 23:12	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	1690	20	02/20/24 12:23	02/21/24 23:12	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	1690	20	02/20/24 12:23	02/21/24 23:12	11096-82-5	
Surrogates								
Decachlorobiphenyl (S)	0	%	10-174	20	02/20/24 12:23	02/21/24 23:12	2051-24-3	D3,S4
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**1.7**	%	0.10	1		02/15/24 12:59		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FORT FISHER AQUARIUM
Pace Project No.: 92713323

Sample: PCB-2 **Lab ID: 92713323002** Collected: 02/13/24 12:30 Received: 02/13/24 15:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546 Pace Analytical Services - Charlotte							
PCB-1016 (Aroclor 1016)	ND	ug/kg	1520	20	02/20/24 12:23	02/21/24 23:26	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	1520	20	02/20/24 12:23	02/21/24 23:26	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	1520	20	02/20/24 12:23	02/21/24 23:26	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	1520	20	02/20/24 12:23	02/21/24 23:26	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	1520	20	02/20/24 12:23	02/21/24 23:26	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	1520	20	02/20/24 12:23	02/21/24 23:26	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	1520	20	02/20/24 12:23	02/21/24 23:26	11096-82-5	
Surrogates								
Decachlorobiphenyl (S)	0	%	10-174	20	02/20/24 12:23	02/21/24 23:26	2051-24-3	D3,S4
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**2.2**	%	0.10	1		02/15/24 13:00		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: FORT FISHER AQUARIUM
Pace Project No.: 92713323

Sample: PCB-3 **Lab ID: 92713323003** Collected: 02/13/24 13:00 Received: 02/13/24 15:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546 Pace Analytical Services - Charlotte							
PCB-1016 (Aroclor 1016)	ND	ug/kg	1970	20	02/20/24 12:23	02/21/24 23:41	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	1970	20	02/20/24 12:23	02/21/24 23:41	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	1970	20	02/20/24 12:23	02/21/24 23:41	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	1970	20	02/20/24 12:23	02/21/24 23:41	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	1970	20	02/20/24 12:23	02/21/24 23:41	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	1970	20	02/20/24 12:23	02/21/24 23:41	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	1970	20	02/20/24 12:23	02/21/24 23:41	11096-82-5	
Surrogates								
Decachlorobiphenyl (S)	0	%	10-174	20	02/20/24 12:23	02/21/24 23:41	2051-24-3	D3,S4
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**2.3**	%	0.10	1		02/15/24 13:00		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FORT FISHER AQUARIUM
Pace Project No.: 92713323

QC Batch: 833567
QC Batch Method: EPA 3546
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92713323001, 92713323002, 92713323003

METHOD BLANK: 4307226 Matrix: Solid
Associated Lab Samples: 92713323001, 92713323002, 92713323003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	32.9	02/21/24 11:56	
PCB-1221 (Aroclor 1221)	ug/kg	ND	32.9	02/21/24 11:56	
PCB-1232 (Aroclor 1232)	ug/kg	ND	32.9	02/21/24 11:56	
PCB-1242 (Aroclor 1242)	ug/kg	ND	32.9	02/21/24 11:56	
PCB-1248 (Aroclor 1248)	ug/kg	ND	32.9	02/21/24 11:56	
PCB-1254 (Aroclor 1254)	ug/kg	ND	32.9	02/21/24 11:56	
PCB-1260 (Aroclor 1260)	ug/kg	ND	32.9	02/21/24 11:56	
Decachlorobiphenyl (S)	%	74	10-174	02/21/24 11:56	

LABORATORY CONTROL SAMPLE: 4307227

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	168	127	76	36-130	
PCB-1260 (Aroclor 1260)	ug/kg	168	140	83	38-133	
Decachlorobiphenyl (S)	%			83	10-174	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4307228 4307229

Parameter	Units	92714010011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	196	196	126	118	64	61	10-144	6	
PCB-1260 (Aroclor 1260)	ug/kg	ND	196	196	135	128	69	66	10-141	5	
Decachlorobiphenyl (S)	%						80	80	10-174		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FORT FISHER AQUARIUM
Pace Project No.: 92713323

QC Batch: 832602
QC Batch Method: SW-846
Analysis Method: SW-846
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92713323001, 92713323002, 92713323003

SAMPLE DUPLICATE: 4302612

Parameter	Units	92712010006 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	95.2	95.3	0	N2

SAMPLE DUPLICATE: 4302613

Parameter	Units	92713435007 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	83.5	83.8	0	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: FORT FISHER AQUARIUM
Pace Project No.: 92713323

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
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(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT FISHER AQUARIUM
Pace Project No.: 92713323

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92713323001	**PCB-1**	EPA 3546	833567	EPA 8082A	833665
92713323002	**PCB-2**	EPA 3546	833567	EPA 8082A	833665
92713323003	**PCB-3**	EPA 3546	833567	EPA 8082A	833665
92713323001	**PCB-1**	SW-846	832602		
92713323002	**PCB-2**	SW-846	832602		
92713323003	**PCB-3**	SW-846	832602		

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: S+ME

Project WO#: 92713323

92713323

Courier: ☐ Commercial ☑ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No ☐ N/A

Date/Initials Person Examining Contents: TJS 12/14/24

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☐ IR Gun ID: 92-7078

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 1.7 Correction Factor: Add/Subtract (°C) 0.1

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.8

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: SL				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

WO#: 92713323

Project #

PM: AMB Due Date: 02/21/24

CLIENT: 92-S&ME Wilm

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1									—																				
2									—																				
3									—																				
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace® Location Requested (City/State): **Huntersville, NC**

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name: S&ME Inc.	Contact/Report To: Benjamin Best
Street Address: 3006 Hall Waters Drive Suite 100 Wilmington, NC 28405	Phone #: 910.625.5594
	E-Mail: bbest@smeinc.com
	Cc E-Mail:
Customer Project #: 23060119	Invoice to: S&ME Inc.
Project Name: Fort Fisher Aquarium	Invoice E-mail: Smeinc_invoice@Concursolutions.com
Site Collection Info/Facility ID (as applicable): Fort Fisher Aquarium	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET	County / State origin of sample(s): New Hanover, NC

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other Standard

Date Results Requested:

DW PWSID # or WW Permit # as applicable:

Field Filtered (if applicable): [ ] Yes [X] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 2 Oz

Identify Container Preservative Type***: N/A

Analysis Requested: PCB, 8082

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: / AcctNum / Client ID: / Table #: / Profile / Template: / Prelog / Bottle Ord. ID:

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	PCB, 8082	Sample Comment	Preservation non-conformance identified for sample.
PCB-1	CK	GRAB	2/13/24	12			1			X	92713323 001	
PCB-2	CK	GRAB	"	1230			1			X	002	
PCB-3	CK	GRAB	"	1300			1			X	003	
~~PCB-4~~ Ben Best	~~CK~~	~~GRAB~~										
~~PCB-5~~	~~CK~~	~~GRAB~~										

Additional Instructions from Pace®: Ben Best / S&ME

Collected By: Printed Name: Ben Best Signature: Ben Best

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): Corrected Temp. (°C): [ ] On Ice

Relinquished by/Company: (Signature) Ben Best / S&ME	Date/Time: 2-13-24 / 1545	Received by/Company: (Signature) J. Dixon / Pace	Date/Time: 2/13/24 1575	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature) TSS / Pace	Date/Time: 2/14/24 1102	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[X] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of