ASBESTOS TRIENNIAL INSPECTION REPORT

for

W. L. Morse School

Tarrytown Union Free School District
200 North Broadway
Sleepy Hollow, New York 10591

by

S & B ENVIRONMENTAL, LLC
7 Fairchild Road
Newtown, CT. 06470

25 May 2019

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Section 1 - GENERAL BACKGROUND:

Congress promulgated the Asbestos Hazard Emergency Response Act (AHERA) in 1986. AHERA mandated the Environmental Protection Agency (EPA) to develop regulations setting forth a comprehensive framework for responding to asbestos in schools.

This law was enacted due to the fact that asbestos, which is a fibrous, durable and noncombustible mineral, was found to be carcinogenic when inhaled or ingested. Up until approximately 1973, asbestos was commonly used in building materials such as vinyl floor tiles, thermal insulations and surfacing materials such as plaster and fire-proofing.

If the asbestos containing building materials are in good condition and no asbestos fibers are being released to the air, ACBMs do not pose a health threat. However, any ACBM has the potential to become damaged or friable and therefore asbestos continues to be a matter of concern.

The EPA promulgated the Asbestos-Containing Materials in Schools Rule (AHERA), 40 Code of Federal Rules Part 763, Sub-part E, in 1987. The rule requires that all of the nation's nonprofit elementary and secondary schools, both public and non-public, inspect their school buildings for ACBM, develop an asbestos management plan for each school, notify parents and staff of the plan, and provide asbestos awareness training to school maintenance and custodial workers. The governing authority responsible for AHERA compliance is the Local Education Agency (LEA).

The LEA is required to appoint a "designated person" to be in charge of identifying and managing asbestos containing materials. The major responsibilities of the designated person are to oversee the development of a management plan for ACBMs in the schools under the authority of the LEA and to make sure that the plan is implemented according to the AHERA regulations. In New York State, asbestos management plan summaries (AHERA Form-5) are submitted to the New York State Education Department.

<u>AHERA LEA General Responsibilities:</u>

1) Ensure that the activities of persons who perform asbestos inspections, re-inspections, periodic surveillance, assessments, develop and update management plans, and develop and implement response actions including operations and maintenance programs comply with the requirements of AHERA.

2) Ensure that all custodial and maintenance workers, regardless of their job duties are properly trained, and as needed, NYS DOL certified, to the level of work to be performed.

3) Ensure that workers and building occupants, including parents, teachers and staff are notified at least once each school year about activities related to ACBM.

4) Ensure that short-term workers, who are not employees of the school but who may come in

contact with asbestos in a school, are informed of the locations of known and assumed ACBM in the building prior to performing any work.

5) Ensure that warning labels are properly posted in routine maintenance areas.

6) Ensure that management plans are available for public inspection.

7) Appoint a designated person to ensure the proper implementation of the AHERA requirements.

8) Ensure that the designated person receives adequate training to perform duties assigned.

9) Based upon the recommendations of the management planner, select appropriate response actions and ensure they are carried out in a timely manner.

10) Document in detail all plans and specifications for response actions, plans for re-inspections, plans for O&M activities, plans for periodic surveillance, plans for additional cleaning, etc.

11) Document in detail all response action activities, preventative measures sampling information, fiber release episodes, cleaning, air sampling following response action activities, etc.

12) Document all employee training and public notifications.

13) Maintain records in centralized locations in both the school building and the LEA administrative offices.

14) Develop and implement an asbestos operations and maintenance program wherever any friable ACBM is present or assumed to be present in a school building.

15) Consider whether any conflict of interest may arise among personnel undertaking activities related to the ACBM in a school.

16) Ensure that all operations associated with the implementation of the management plan have been executed or will be executed within the time frame established by AHERA.

17) Under NYS ED, the LEA designated person must sign-off on the Triennial Asbestos Report which is submitted by August 1.

Re-inspections must be completed every three years. The reinspection period provides an excellent opportunity for schools to re-evaluate and revise their programs for managing asbestos. Under the reinspection process, schools do not need to re-measure square footage or re-determine homogeneous areas, unless the present data is in error or inadequate. Schools do need to reinspect all friable and non-friable known or assumed ACBM in each school building. Two methods of determining asbestos under AHERA requirements are to either (1) assume the suspect material to be asbestos-containing or (2) bulk sample test the suspect material for laboratory confirmation. Re-testing bulk samples for the reinspection is not necessary or required unless their is question of the reliability of the previous test material.

The reinspection must be performed by a person currently certified by the NYS DOL as an asbestos inspector. A person with current certification by the NYS DOL as an asbestos management planner must review the asbestos reinspection assessment, make response action recommendations, and update the existing school asbestos management plan according to AHERA requirements. A triennial inspection does not require the re-writing of the entire AHERA management plan. However, if the current management plan is not easily understood by the school-asbestos designated person, the building staff and parents, then this would be an excellent time to address the problem areas in the management plan.

Reporting asbestos management activities every three years to the NYS ED on a prescribed form is required.

Section 2 - DEFINITIONS:

Abatement:	A NYS DOL term. Procedures to control fiber release from asbestos material. This includes removal, encapsulation, enclosure, repair, disturbance of friable asbestos or any handling of asbestos material that may result in the release of asbestos fiber.
Accessible:	An EPA term. ACM material subject to disturbance by school personnel in the course of their normal activities.
Adequately Wet:	An EPA NESHAPS term. Sufficiently mix or penetrate with a liquid to prevent the release of particulate matter. If visible emissions are observed coming from asbestos containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being wet.
Aggressive Method:	An OSHA term. Removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles or disintegrates intact ACM.
Air Sampling:	A NYS DOL term. The process of measuring the fiber content of a known volume of air collected during a specific period of time.
Amended Water:	An OSHA and NYS DOL term. Water to which surfactant (wetting agent) has been added to increase the ability of the liquid to penetrate ACM.
Area Air Sampling:	A NYS DOL term. Any form of air sampling or monitoring where the sampling device is placed at some stationary location.
Asbestos:	An EPA, OSHA and NYS DOL term. Includes chrysotile, amosite, crocidolite, tremolite, anthophylite, actinolite, any of these minerals which has been chemically treated and / or altered. It also includes material assumed (EPA) or presumed (OSHA) to be asbestos.
Asbestos Containing Material (ACM):	An EPA and OSHA term. Any material or product which contains more than 1 percent asbestos. NYS DOL uses the term asbestos material.
Asbestos Containing Building Material (ACBM):	An EPA term. Surfacing ACM, thermal system insulation ACM or miscellaneous ACM that is found in or on interior structural members or other parts of a school building.

Asbestos Debris: An EPA term. Pieces of ACBM that can be identified by color, texture or composition, or means dust if the dust is determined by an accredited inspector to be ACM.

Asbestos Project: A NYS DOL term. Work undertaken by a contractor which at any time involves any aspect of the removal, encapsulation, enclosure or disturbance of friable asbestos, or any handling of asbestos material that may result in the release of asbestos fiber. An asbestos project shall include the planning, design, monitoring, inspection and air sampling of abatement work as well as the supervising of such activities.

Asbestos projects include large asbestos projects, small asbestos projects, minor asbestos projects and emergency projects. For purposes of licensing, certification, notification, record keeping and air monitoring, asbestos project shall include in-plant operations of NYS DOL.

Asbestos Waste: A NYS DOL term. Asbestos material or asbestos contaminated objects requiring disposal pursuant to Federal and State regulations.

Assessment: An EPA term. Evaluation of the physical condition and potential for damage of all friable ACM and thermal system ACM. AHERA requires classification of each ACBM assessed into one of seven categories based on material type and damage / potential for damage.

Authorized Person: An OSHA term. Any person authorized by the employer and required by work duties to be present in regulated areas. Persons must be trained and certified in asbestos to perform the tasks they are expected to perform

Authorized Visitor: A NYS DOL term. The building owner, his or her agent or representative, any party contracting for services on an asbestos project whether on his or her own behalf or on behalf of another, insurance appraisers or inspectors, utility company representatives, the commissioner of NYS DOL or his / her agents, an personnel of any regulatory agency having jurisdiction.

Bulk Sample: An EPA term. A small portion of a suspect asbestos-containing building material collected by the asbestos inspector for laboratory analysis to determine asbestos content.

Category I Non-friable ACM: An EPA NESHAPS term. Asbestos containing packing, gaskets, resilient floor covering and asphalt roofing products, containing more than 1 percent asbestos.

Category II Non-friable ACM: An EPA NESHAPS term. Any material excluding Category I non-friable ACM, containing more than 1 prevent asbestos that when dry cannot be crumbled pulverized or reduced to powder by hand pressure.

Class I Asbestos Work: An OSHA term. Activities involving the removal of greater than 10 square feet or 25 linear feet of TSI and Surfacing ACM, assumed asbestos and PACM.

Class II Asbestos Work: An OSHA term. Activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to the removal of any quantity of asbestos containing wallboard, floor tile, and sheeting and mastic.

Class III Asbestos Work: An OSHA term. Activities involving repair and maintenance operations where ACM, including 10 square feet or less or 25 linear feet or less, of thermal system insulation and surfacing material is likely to be disturbed.

Class IV Asbestos Work: An OSHA term. Activities involving maintenance and custodial activities during which employees contact ACM, assumed asbestos and PACM and activities to clean up waste and debris containing ACM, assumed and PACM. Includes minor fiber release episodes. AHERA requires additional work procedures for major fiber release episodes.

Cleaning: A NYS DOL term. The utilization of HEPA vacuuming and /or wet cleaning to control and eliminate accumulations of asbestos material and asbestos waste material.

Clearance Air Levels: An EPA term. Following asbestos abatement, the maximum amount of fibers allowed in air determining whether the response action (abatement) has been successfully completed. For PCM analysis it is 0.01 fibers per cubic centimeter. For TEM analysis it is 70 asbestos structures per square millimeter.

Competent Person: An OSHA term. One who is capable of identifying existing asbestos hazards in the work-place and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them. Supervisor level training and certification satisfies the requirement of competent person.

Contractor: A NYS DOL term. The state, any political subdivision of the State, a public authority or any other governmental agency or instrumentality thereof, self employed person, company, unincorporated association, firm, partnership or corporation and any owner or operator thereof, which engages in an asbestos project or employees persons engaged in any phase of an asbestos project.

Critical: An OSHA term. One or more layers of plastic sealed over all openings into a work area or any other similarly placed physical barrier sufficient to prevent asbestos in a work area from migrating to an adjacent area.

Damaged Friable Miscellaneous ACM: An EPA term. Friable miscellaneous ACM which has deteriorated or sustained physical injury such that the internal structure (cohesion) of the material is inadequate or which has de-laminated such that its bond to the substrate (adhesion) is inadequate or which for any other reason lacks fiber cohesion or adhesion qualities.

Damaged Friable Surfacing ACM: An EPA term. Friable surfacing ACM which has deteriorated or sustained physical injury such that the internal structure (cohesion) of the material is inadequate or which has de-laminated such that its bond to the substrate (adhesion) is inadequate or which for any other reason lacks fiber cohesion or adhesion qualities.

Damaged or Sig. Damaged Thermal System Insulation ACM: An EPA term. Thermal system insulation ACM on pipes, boilers, tanks, ducts and other thermal system insulation equipment where the insulation has lost its structural integrity or its covering in whole or in part is crushed, water stained, gouged, punctured, missing or not intact such that it is not able to contain fibers.

ELAP: A NYS DOL term.

Emergency: A NYS DOL term. An unexpected, unanticipated or unforeseen occurrence, including but not limited to a steam, chemical, or water line rupture, a boiler failure or a building collapse which poses: 1) an imminent danger to the health and safety of the public, the response to which will constitute an asbestos project; 2) an asbestos related risk to the health and safety of the public from exposure to asbestos fibers.

Encapsulation: An EPA and NYS DOL term. The treatment of ACBM with a material that

surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers as the encapsulant creates a membrane over the surface of (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant).

Enclosure: An EPA and NYS DOL term. An airtight, impermeable, permanent barrier around ACBM to prevent the release of asbestos fibers into the air.

EPA: Environmental Protection Agency. Occupant and neighborhood health and safety.

Excursion Limit: An OSHA term. An employee exposure of 1.0 fiber per cubic centimeter of air as averaged over a sampling period of thirty minutes.

Fiber Release Episode: An EPA term. Any uncontrollable or unintentional disturbance of ACBM resulting in visible emission. Fiber release episodes are classified as minor in which 3 square feet or less or linear feet are affected or major in which more than 3 square feet or linear feet are affected.

Friable: A NYS DOL and EPA term. Material when dry may be crumbled, pulverized or reduced to powder by hand pressure and includes previously non-friable material after such previously non-friable material becomes damaged to the extent that when dry it may be crumbled, pulverized or reduced to powder by hand pressure.

Functional Space: An EPA term. A room, group of rooms or homogeneous area designated by an accredited person.

High Efficiency Particulate Air (HEPA): An OSHA, NYS DOL and EPA term. A filtering device capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles 0.3 microns in diameter or larger.

Homogeneous Area: A NYS DOL term. An OSHA and EPA term. An area of surfacing material, thermal system insulation or miscellaneous material that is uniform in color and texture.

In Plant Operations: A NYS DOL term. Any work within the premises of any employer other than the State, any political subdivision of the State, a public authority or other governmental agency or instrumentality thereof, in an area to which persons other than those directly involved in the work will not have access during the course of the work and which is performed in a manner consistent with U.S.

OSHA and is performed in a manner which will not expose the public to asbestos fibers in excess of background levels or .01 fibers per cubic centimeter, whichever is greater, provided that the work involves the encapsulation, enclosure, removal, disturbance or handling of less than 160 square feet or 260 linear feet of asbestos or asbestos material and is performed by employees of such employer or built up roofing material, flashing, transite roofing and siding, shingle siding, transite pipe, vinyl asbestos tile, ceiling tiles / panels, or other non-friable material.

Intact: An OSHA term. ACM which has not crumbled, been pulverized or otherwise deteriorate so that it is no longer likely to be bound with its matrix.

Large Asbestos Project: A NYS DOL term. An asbestos project involving the removal, disturbance, enclosure, encapsulation or handling of 160 square feet or more of asbestos or asbestos material or 260 linear feet or more of asbestos, asbestos material, assumed ACBM or PACM.

Management Plan: An EPA term. A document that each LEA is required to prepare under AHERA regulations. This document describes all activities planned and undertaken by a school to comply with AHERA regulations, including building inspections to identify ACM, response actions and operations and maintenance programs to minimize the risk of exposure to asbestos in school buildings.

Medical Surveillance: An OSHA term. A periodic comprehensive review of a worker's health status. The required elements of an acceptable medical surveillance program are listed in the OSHA standard for asbestos.

Minor Asbestos Project: A NYS DOL term. An asbestos project involving the removal, disturbance, repair, encapsulation, enclosure or handling of 10 square feet or less of asbestos or asbestos material, or 25 linear feet or less of asbestos, asbestos material, assumed ACBM or PACM.

Miscellaneous Material: An EPA and OSHA term. Interior building material on structural components, structural members or fixtures such as floor and ceiling tiles and does not include surfacing material or thermal system insulation.

MSHA: Mine Safety & Health Administration. Approves respiratory devices with NIOSH.

Negative Initial Exposure Assessment:	An OSHA term. A demonstration by the employer that employee exposure during an operation is expected to be consistently below the 8 hour TWA PEL.
NESHAPS:	National Emission Standards for Hazardous Air Pollutants, including asbestos. EPA regulation for public and neighborhood health and safety.
NIOSH:	National Institute for Occupational Safety and Health. Performs research on worker health and safety. Approves respiratory devices.
Non-asbestos Material:	A NYS DOL term. Any material containing one percent or less by weight of asbestos.
Non-friable:	An EPA term. Material which when dry may not be crumbled, pulverized or reduced to powder by hand pressure.
Non-friable Organically Bound (NOB):	A NYS DOH term. Bulk materials, including vinyl, rubber, asphalt based materials, such as vinyl asbestos tile, mastic, asphalt shingles and roofing materials.
NYS DOH:	New York State Department of Health.
NYS DOL:	New York State Department of Labor.
Operations & Maintenance Program (O&M):	An EPA term. A program of work practices to maintain friable ACBM in good condition, ensure clean up of asbestos fibers previously released and prevent further release by minimizing and controlling friable ACBM disturbance or damage.
OSHA:	Occupational Safety and Health Administration. Private worker health and safety regulatory agency.

PEOSHA: Public Employee Occupational Safety and Health Administration. Public worker health and safety regulatory agency.

Personal Air Samples: An OSHA term. An air sample taken with a sampling pump directly attached to the worker with the collecting filter and cassette placed in the worker's breathing zone.

Permissible Exposure Limit (PEL): An OSHA term. The maximum average exposure in an 8 hour work day which a worker may be exposed to by OSHA is 0.1 fibers per cubic centimeter.

Phase Contrast Microscopy (PCM): A method of laboratory analysis for air samples which can not differentiate asbestos fibers from other non-asbestos fibers and cannot detect the very small and thin fibers.

Polarizing Light Microscopy (PLM): A method of laboratory analysis for bulk samples which can determine the percent of asbestos in a sample. This method can also differentiate the type of asbestos fibers. This method can also be used to determine qualitatively whether asbestos is present in dust.

Potential Damage: An EPA term. 1) Friable ACBM is in an area regularly used by building occupants, including maintenance personnel in the course of their normal activities

2) There are indications that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated or de-laminated due to factors such as changes in building use, changes in operations and maintenance practices, changes in occupancy or recurrent damage.

Potential for Significant Damage: An EPA term. 1) Friable ACBM is in an area regularly used by building occupants, including maintenance personnel in the course of their normal activities

2) There are indications that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated or de-laminated due to factors such as changes in building use, changes in operations and maintenance practices, changes in occupancy or recurrent damage

3) The material is subject to major or continuing disturbance, due to factors

including but not limited to: accessibility, or under certain circumstances, vibration or air erosion.

Presumed Asbestos Containing Material (PACM): An OSHA term. Thermal system insulation and surfacing material found in buildings constructed no later than 1980. Upon testing and laboratory analysis a material may be re-classified as ACM or non-ACM.

Preventive Measures: An EPA term. Actions taken to reduce disturbance of ACBM or otherwise eliminate the reasonable likelihood of the material's becoming damaged or significantly damaged.

Random Sample: Method of collecting bulk samples of asbestos that assures statistical randomness.

Regulated ACM: An EPA NESHAPS term. 1) Friable asbestos material

2) Category I non-friable ACM that has become friable

3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading

4) 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.

Regulated Area: An OSHA term. An area established by the employer to demarcate areas where Class I, II and III work is conducted any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos exceed or there is a reasonable possibility they may exceed the permissible exposure limit.

Reinspection: An EPA term. The examination of homogeneous materials in which an original AHERA inspection has been performed previously.

Removal: An EPA and NYS DOL term. Taking out or the stripping of substantially all ACBM from a damaged area, a function space or a homogeneous area.

Repair: An EPA and NYS DOL term. Returning damaged ACBM to an undamaged condition or to an intact state so as to prevent fiber release.

Response Action: An EPA term. A method, including removal, encapsulation, enclosure, repair, operations and maintenance, that protects human health and the environment from friable ACBM.

Routine Maintenance Area: An EPA term. An area such as a boiler room or mechanical room, that is not normally frequented by students and in which maintenance employees or contact workers regularly conduct maintenance activities.

Satisfactory Clearance Air Monitoring Results: A NYS DOL term. For all post-abatement samples, air-borne concentrations of asbestos fibers that are less than 0.01 fibers per cubic centimeter or background levels, whichever is greater. For TEM analysis, samples must contain less than 70 structures per square millimeter(mm^2).

School Building: An EPA term. 1) Any structure suitable for use as a classroom, including a school facility such as a laboratory, library, school eating facility or brown used for the preparation of food

2) Any gymnasium or other facility which is specially designed for athletic or recreational activities for an academic course in physical education

3) any other brown used for the instruction or housing of students or for the administration of educational or research programs

4) any maintenance, storage, or utility facility including any hallway, essential to the operation of any brown

5) any portico or covered exterior hallway or walkway;

6) any exterior portion of a mechanical system used to condition interior space.

Significantly Damaged Friable Miscellaneous ACM: An EPA term. Damaged friable miscellaneous ACM where the damage is

extensive and severe.

Significantly Damaged Friable Surfacing ACM: An EPA term. Damaged friable surfacing ACM in a functional space where the damage is extensive and severe.

Small Asbestos Project: A NYS DOL term. An asbestos project involving the removal, encapsulation, enclosure or disturbance of friable asbestos, or any handling of more than 10 and less than 160 square feet of asbestos or asbestos material or more than 25 and less than 260 linear feet of asbestos, asbestos material, assumed ACBM or PACM.

Surfacing Material: An EPA and OSHA term. Material that is sprayed-on, troweled-on, or otherwise applied to surfaces, such as acoustical plaster on ceiling and fire-proofing materials on structural members, or other materials on surfaces for acoustical, fire-proofing, or other purposes.

Surfactant: A NYS DOL term. A chemical wetting agent added to water to improve its penetration.

Suspect Material: An EPA term. Building material suspected of containing asbestos because of past practices in its manufacture and use; includes thermal system insulation, surfacing material and miscellaneous material. Suspect materials are classified as ACM or non-ACM by analyzing bulk samples to determine asbestos content.

Transmission Electron Microscopy (TEM): A method of laboratory analysis for air, bulk, water and dust samples which is able to differentiate asbestos from non-asbestos fibers. This method can also differentiate the type of asbestos fibers.

Thermal System Insulation: An EPA and OSHA term. Material applied to pipes, fittings, boilers, breaching, tanks, ducts, or other interior structural components to prevent heat loss or gain or water condensation or for other purposes.

Time Weighted Average (TWA): An OSHA term. In air sampling, this refers to the average air concentration contaminants during a particular sampling period.

Visible Emissions: An EPA NESHAPS and NYS DOL term. Any emissions of particulate material that can be seen without the aid of instruments. This does not

include condensed uncombined water vapor.

Wet Cleaning: A NYS DOL term. The process of eliminating contamination from surfaces, equipment or other objects by using cloths, mops or other cleaning tools which have been dampened with amended water.

Work Area: A NYS DOL term. Designated area within a work site where an asbestos project occurs which either is contained or to which access is restricted.

Section 3 - ASBESTOS CONTACTS:

Non-Governmental:

BOCES - Southern Westchester
2 Westchester Plaza
Elmsford, N.Y. 10530
(914) 345-8500

S & B Environmental, LLC
7 Fairchild Road
Newtown, CT 06470
(203) 426-3704

Governmental - New York State:

Education Department
Central Services Team 1
Facilities Team
89 Washington Ave
Albany, N.Y. 12234
(518) 474-3906

Reviews and approves public elementary and secondary school building capital construction project plans and specifications. Issues Commissioner's approval and public school building permits.

Education Department
Central Services Team 1
Environmental / Occupational Health and Safety Staff
89 Washington Ave
Albany, N.Y. 12234
(518) 474-3906

Administers AHERA for public and non-public schools and serves as the AHERA and ASHAA designee for New York State. Assists the EPA with asbestos activities in public and non-public elementary and secondary schools. Administers State school asbestos reporting requirements. Assists schools with other health and safety issues such as school emergency planning, indoor air quality, radon and lead.

Department of Environmental Conservation
Division of Hazardous Substance Regulation
Bureau of Program & Technical Support
625 Broadway
Albany, N.Y. 12233
(518) 402-8612

Issues transportation permits for asbestos waste haulers.

Department of Environmental Conservation
Division of Hazardous Substance Regulation
Bureau of Municipal Waste
625 Broadway
Albany, N.Y. 12233
(518) 402-8610

Issues permits for disposal sites and approves methods of on-site asbestos disposal.

Department of Health
Division of Occupational Health and Environmental Epidemiology
Bureau of Occupational Health
Corning Tower
Empire State Plaza
Albany, N.Y. 12237
(866) 881-2809

Reviews and approves curriculum and maintains a list of training courses for asbestos disciplines. The development and implementation of these training courses enable persons to qualify for NYS DOL asbestos certification.

Administers State Right to Know program.

Department of Health
Wadsworth Center for Laboratories and Research
Environmental Laboratory Analysis Program
Empire State Plaza
Corning Tower, Room D-224
Albany, N.Y. 12201
(518) 485-5570

Certifies environmental laboratories for asbestos analysis of samples.

Department of Labor
Division of Safety and Health
Asbestos Control Bureau
State Office Building Campus
Building 12, Room 157
Albany, N.Y. 12240
(518) 457-1255

Oversees and enforces Industrial Code Rule 56. Inspects and enforces asbestos abatement projects. Office to notify prior to commencing a large asbestos abatement project or some projects covered under applicable variances which are small and submit final air clearance results.

Department of Labor
Division of Safety and Health
License and Certification Unit
Building 12, Room 290A
Albany, N.Y. 12240
(518) 457-2735

Licenses and certifies asbestos abatement workers and contractors. Office to contact concerning enforcement, inspection, and complaints regarding specific asbestos abatement projects. Enforces State Public Employee Safety and Health (PESHA) regulations.

Governmental - Federal

Department of Labor - Region II
Occupational Safety and Health Administration
201 Varick Street, Room 908
New York, N.Y. 10014
(212) 337-2378

Administers and enforces OSHA regulations governing work-place safety and health in the private sector.

Environmental Protection Agency - Region II
Regional Asbestos Coordinator
Building 10
2890 Woodbridge Avenue
Edison, N.J. 08837
(908) 321-6669

Administers and enforces AHERA in EPA Region II. Administers and provides information on Federal asbestos abatement grants and loans. Provides general asbestos information.

Environmental Protection Agency - Region II
Asbestos Coordinator
Air Compliance Branch
290 Broadway
New York, N.Y. 10007
(212) 637-3660

Office to notify prior to renovation and / or asbestos abatement projects which will disturb more than 260 linear feet or 160 square feet of asbestos containing materials or prior to the demolition of buildings containing asbestos (NESHAPS).

Department of Transportation
Office of Motor Carriers
26 Federal Plaza
New York, N.Y. 10278
(212) 264-1070

Enforces regulations to the interstate transport of asbestos waste by commercial motor carriers.

Section 4 - BUILDING INFORMATION:

Building:	W. L. Morse Elementary School
Reinspection Date:	23 May 2019
Response Action Recommendations:	23 May 2019

Building Contains:

Non-friable ACBM:	Yes
Friable ACBM:	Yes
Assumed ACBM:	No

ACBM Homogeneous Areas:
- Vinyl Floor Tile
- Pipe Insulation
- Electrical Wire Insulation
- Gasket Material

Section 5 - CONSULTANT INFORMATION & SIGN-OFF:

The reinspection was completed by currently certified AHERA and NYS DOL Inspectors and Management Planners. The company employing these persons is licensed by NYS DOL as an asbestos handling company.

S & B Environmental LLC
7 Fairchild Road
Newtown, CT. 06470
(203) 426-3704

Contractor:	S & B Environmental, LLC
Handling License No:	28539
Authorized Representative:	Vernon C. Rohde II
Issuance Date:	08/31/2018
Expiration Date:	08/31/2019

Inspector:	Vernon C. Rohde II
Handling Certificate No:	AH 89-01729
Expiration Date:	October 2019
EPA Accreditation No:	816229
Expiration Date:	6 September 2019

Signature:_____ Date: 24 May 2019

Management Planner:	Vernon C. Rohde II
Handling Certificate No:	AH 89-01729
Expiration Date:	October 2019
EPA Accreditation No:	816226
Expiration Date:	6 September 2019

Signature:_____ Date: 24 May 2019

Inspection Date:	23 May 2019
Assessment Date:	23 May 2019
Response Action Recommendations:	24 May 2019

The LEA Designee has reviewed the contents of the three year re-inspection and agrees with the reassessments and the response actions recommended.

LEA Designee: Anthony DeMan

LEA Designee Signature:_____ Date:_____

Section 6 - TABULAR RESULTS (By Functional Space)

FUNCT. SPACE	SPACE DESCR.	HOM. AREA	ACBM AMOUNT	FRIABLE AMOUNT	ASSESS. CATEG.	JUSTIFY	ACTION REMOVE	ACTION REPAIR	ACTION O&M
2001	HA	PI	15	0	5		0	0	15
2002	OF	PI	50	0	5		0	0	50
2004	HA	PI	25	0	5		0	0	25
2005	ME	PI	15	0	5		0	0	15
2006	HA	PI	10	0	5		0	0	10
2006B	Plenum	PI	50	0	5		0	10	50
2009	OF	PI	80	0	5		0	0	80
2015	Cafeteria	PI	330	0	2		0	0	330
3001	AU	Wire	20	0	5		0	0	20
3001A	CR	FT	60	0	5		0	0	60
3004	Room	FT	50	0	5		0	0	50
3010	CR	FT	500	0	5	New Over	0	0	500
3011	CR	FT	500	0	5	New Over	0	0	500
3012	Stairs	FT	50	0	5	New Over	0	0	50
3113	CR	FT	500	0	5		0	0	500
3014	CR	FT	500	0	5		0	0	500
3016	Stairs	FT	40	0	5		0	0	40
3018	Stairs	FT	50	0	5		0	0	50
3019	CR	FT	600	0	5		0	0	600
3020	CR	FT	600	0	5		0	0	600
3021	CR	FT	600	0	5		0	0	600
3024	CR	FT	600	0	5		0	0	600

Homogeneous Areas Codes (Hom Area):
CK-caulking
CM-cementitious
CT-ceiling tiles
FT-floor tiles
GR-general roofing
LF-linoleum floor
PB-plasterboard (sheetrock)
PC-applied plaster ceiling
PF-pipe fittings
PI-pipe insulation
PW-applied plaster walls
PN-panel boards (transite)
PP-patching plaster
RF-roof flashing
SI-tanks, boilers, duct
SO-spray-on
TC-transite
TM-tar / mastic
VC-vibration cloth

Justification Codes:
AD-asbestos debris
AE-air erosion
DL-delamination
FC-flaking, crumbling
HA-highly accessible
PD-potential damage
PS-potential significant damage
VB-vibration
WD-water damage

Space Description Codes:

AT-attic	GY-gymnasium
AU-auditorium	HA-hallway
BR-boiler room	LB-library
BT-bathroom	ME-mechanical
CF-conf. room	MP-multipurpose
CL-closet	OF-office
CR-classroom	SS-slopsink
CS-crawl space	ST-storage

AHERA Assessment Categories:
1-damaged or significantly damaged TSI ACBM
2-damaged friable surfacing ACBM
3-significantly damaged friable surfacing ACBM
4-damaged or significantly damaged friable misc. ACBM
5-ACBM with potential for damage
6-ACBM with potential for significant damage
7-all other friable ACBM or friable suspect/presumed ACBM
X-non AHERA material; non ACBM and/or non-friable
O-no assessment category in original inspection report

3026	Stairs	FT	120	0	5		0	0	120
4012	CR	FT	450	0	5		0	0	450
4016	Stairs	FT	20	0	5		0	0	20
4017	Stairs	FT	50	0	5		0	0	50
4021	Stairs	FT	50	0	5		0	0	50
5001	Stairs	FT	50	0	5		0	0	50
5010	Stairs	FT	50	0	5		0	0	50
5014	HA	FT	190	0	5		0	0	190
5017	Art	FT	300	0	5		0	0	300
5017B	Closet	FT	50	0	5		0	0	50
5020	Shaft	Gasket	4	0	5		0	0	4
TOTALS			6579	0			0	0	6579

Some areas of floor tiles are beneath flooring materials

Homogeneous Areas Codes (Hom Area):
CK-caulking
CM-cementitious
CT-ceiling tiles
FT-floor tiles
GR-general roofing
LF-linoleum floor
PB-plasterboard (sheetrock)
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Space Description Codes:
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CL-closet
CR-classroom
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ME-mechanical
MP-multipurpose
OF-office
SS-slopsink
ST-storage

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O-no assessment category in original inspection report

Section 7 - TABULAR RESULTS (By Homogenous Area)

FUNCT. SPACE	SPACE DESCR.	HOM. AREA	ACBM AMOUNT	FRIABLE AMOUNT	ASSESS. CATEG.	JUSTIFY	ACTION REMOVE	ACTION REPAIR	ACTION O&M
2001	HA	PI	15	0	5		0	0	15
2002	OF	PI	50	0	5		0	0	50
2004	HA	PI	25	0	5		0	0	25
2005	ME	PI	15	0	5		0	0	15
2006	HA	PI	10	0	5		0	0	10
2006B	Plenum	PI	50	0	5		0	10	50
2009	OF	PI	80	0	5		0	0	80
2015	Cafeteria	PI	330	0	2		0	0	330
3001	AU	Wire	20	0	5		0	0	20
3001A	CR	FT	60	0	5		0	0	60
3004	Room	FT	50	0	5		0	0	50
3010	CR	FT	500	0	5	New Over	0	0	500
3011	CR	FT	500	0	5	New Over	0	0	500
3012	Stairs	FT	50	0	5	New Over	0	0	50
3113	CR	FT	500	0	5		0	0	500
3014	CR	FT	500	0	5		0	0	500
3016	Stairs	FT	40	0	5		0	0	40
3018	Stairs	FT	50	0	5		0	0	50
3019	CR	FT	600	0	5		0	0	600
3020	CR	FT	600	0	5		0	0	600
3021	CR	FT	600	0	5		0	0	600
3024	CR	FT	600	0	5		0	0	600

Homogeneous Areas Codes (Hom Area):
CK-caulking
CM-cementitious
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FT-floor tiles
GR-general roofing
LF-linoleum floor
PB-plasterboard (sheetrock)
PC-applied plaster ceiling
PF-pipe fittings
PI-pipe insulation
PW-applied plaster walls
PN-panel boards (transite)
PP-patching plaster
RF-roof flashing
SI-tanks, boilers, duct
SO-spray-on
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TM-tar / mastic
VC-vibration cloth

Justification Codes:
AD-asbestos debris
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FC-flaking, crumbling
HA-highly accessible
PD-potential damage
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Space Description Codes:
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CF-conf. room
CL-closet
CR-classroom
CS-crawl space
GY-gymnasium
HA-hallway
LB-library
ME-mechanical
MP-multipurpose
OF-office
SS-slopsink
ST-storage

AHERA Assessment Categories:
1-damaged or significantly damaged TSI ACBM
2-damaged friable surfacing ACBM
3-significantly damaged friable surfacing ACBM
4-damaged or significantly damaged friable misc. ACBM
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6-ACBM with potential for significant damage
7-all other friable ACBM or friable suspect/presumed ACBM
X-non AHERA material; non ACBM and/or non-friable
O-no assessment category in original inspection report

3026	Stairs	FT	120	0	5		0	0	120
4012	CR	FT	450	0	5		0	0	450
4016	Stairs	FT	20	0	5		0	0	20
4017	Stairs	FT	50	0	5		0	0	50
4021	Stairs	FT	50	0	5		0	0	50
5001	Stairs	FT	50	0	5		0	0	50
5010	Stairs	FT	50	0	5		0	0	50
5014	HA	FT	190	0	5		0	0	190
5017	Art	FT	300	0	5		0	0	300
5017B	Closet	FT	50	0	5		0	0	50
5020	Shaft	Gasket	4	0	5		0	0	4
TOTALS			6579	0			0	0	6579

Some areas of floor tiles are beneath flooring materials

Homogeneous Areas Codes (Hom Area):
CK-caulking
CM-cementitious
CT-ceiling tiles
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RF-roof flashing
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VC-vibration cloth

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VB-vibration
WD-water damage

Space Description Codes:
AT-attic
AU-auditorium
BR-boiler room
BT-bathroom
CF-conf. room
CL-closet
CR-classroom
CS-crawl space
GY-gymnasium
HA-hallway
LB-library
ME-mechanical
MP-multipurpose
OF-office
SS-slopsink
ST-storage

AHERA Assessment Categories:
1-damaged or significantly damaged TSI ACBM
2-damaged friable surfacing ACBM
3-significantly damaged friable surfacing ACBM
4-damaged or significantly damaged friable misc. ACBM
5-ACBM with potential for damage
6-ACBM with potential for significant damage
7-all other friable ACBM or friable suspect/presumed ACBM
X-non AHERA material; non ACBM and/or non-friable
O-no assessment category in original inspection report

Section 8 - TABULAR RESULTS (By Response Action - Repair)

FUNCT. SPACE	SPACE DESCR.	HOM. AREA	ACBM AMOUNT	FRIABLE AMOUNT	ASSESS. CATEG.	JUSTIFY	ACTION REMOVE	ACTION REPAIR	ACTION O&M
2001	HA	PI	15	0	5		0	0	15
2002	OF	PI	50	0	5		0	0	50
2004	HA	PI	25	0	5		0	0	25
2005	ME	PI	15	0	5		0	0	15
2006	HA	PI	10	0	5		0	0	10
2006B	Plenum	PI	50	0	5		0	10	50
2009	OF	PI	80	0	5		0	0	80
2015	Cafeteria	PI	330	0	2		0	0	330
3001	AU	Wire	20	0	5		0	0	20
3001A	CR	FT	60	0	5		0	0	60
3004	Room	FT	50	0	5		0	0	50
3010	CR	FT	500	0	5	New Over	0	0	500
3011	CR	FT	500	0	5	New Over	0	0	500
3012	Stairs	FT	50	0	5	New Over	0	0	50
3113	CR	FT	500	0	5		0	0	500
3014	CR	FT	500	0	5		0	0	500
3016	Stairs	FT	40	0	5		0	0	40
3018	Stairs	FT	50	0	5		0	0	50
3019	CR	FT	600	0	5		0	0	600
3020	CR	FT	600	0	5		0	0	600
3021	CR	FT	600	0	5		0	0	600
3024	CR	FT	600	0	5		0	0	600

Homogeneous Areas Codes (Hom Area):
CK-caulking
CM-cementitious
CT-ceiling tiles
FT-floor tiles
GR-general roofing
LF-linoleum floor
PB-plasterboard (sheetrock)
PC-applied plaster ceiling
PF-pipe fittings
PI-pipe insulation
PW-applied plaster walls
PN-panel boards (transite)
PP-patching plaster
RF-roof flashing
SI-tanks, boilers, duct
SO-spray-on
TC-transite
TM-tar / mastic
VC-vibration cloth

Justification Codes:
AD-asbestos debris
AE-air erosion
DL-delamination
FC-flaking, crumbling
HA-highly accessible
PD-potential damage
PS-potential significant damage
VB-vibration
WD-water damage

Space Description Codes:
AT-attic
AU-auditorium
BR-boiler room
BT-bathroom
CF-conf. room
CL-closet
CR-classroom
CS-crawl space
GY-gymnasium
HA-hallway
LB-library
ME-mechanical
MP-multipurpose
OF-office
SS-slopsink
ST-storage

AHERA Assessment Categories:
1-damaged or significantly damaged TSI ACBM
2-damaged friable surfacing ACBM
3-significantly damaged friable surfacing ACBM
4-damaged or significantly damaged friable misc. ACBM
5-ACBM with potential for damage
6-ACBM with potential for significant damage
7-all other friable ACBM or friable suspect/presumed ACBM
X-non AHERA material; non ACBM and/or non-friable
O-no assessment category in original inspection report

3026	Stairs	FT	120	0	5		0	0	120
4012	CR	FT	450	0	5		0	0	450
4016	Stairs	FT	20	0	5		0	0	20
4017	Stairs	FT	50	0	5		0	0	50
4021	Stairs	FT	50	0	5		0	0	50
5001	Stairs	FT	50	0	5		0	0	50
5010	Stairs	FT	50	0	5		0	0	50
5014	HA	FT	190	0	5		0	0	190
5017	Art	FT	300	0	5		0	0	300
5017B	Closet	FT	50	0	5		0	0	50
5020	Shaft	Gasket	4	0	5		0	0	4
TOTALS			6579	0			0	0	6579

Some areas of floor tiles are beneath flooring materials

Homogeneous Areas Codes (Hom Area):
CK-caulking
CM-cementitious
CT-ceiling tiles
FT-floor tiles
GR-general roofing
LF-linoleum floor
PB-plasterboard (sheetrock)
PC-applied plaster ceiling
PF-pipe fittings
PI-pipe insulation
PW-applied plaster walls
PN-panel boards (transite)
PP-patching plaster
RF-roof flashing
SI-tanks, boilers, duct
SO-spray-on
TC-transite
TM-tar / mastic
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Justification Codes:
AD-asbestos debris
AE-air erosion
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VB-vibration
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Space Description Codes:
AT-attic
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CR-classroom
CS-crawl space
GY-gymnasium
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LB-library
ME-mechanical
MP-multipurpose
OF-office
SS-slopsink
ST-storage

AHERA Assessment Categories:
1-damaged or significantly damaged TSI ACBM
2-damaged friable surfacing ACBM
3-significantly damaged friable surfacing ACBM
4-damaged or significantly damaged friable misc. ACBM
5-ACBM with potential for damage
6-ACBM with potential for significant damage
7-all other friable ACBM or friable suspect/presumed ACBM
X-non AHERA material; non ACBM and/or non-friable
O-no assessment category in original inspection report

Section 9 - TABULAR RESULTS (By Response Action - Remove)

FUNCT. SPACE	SPACE DESCR.	HOM. AREA	ACBM AMOUNT	FRIABLE AMOUNT	ASSESS. CATEG.	JUSTIFY	ACTION REMOVE	ACTION REPAIR	ACTION O&M
2001	HA	PI	15	0	5		0	0	15
2002	OF	PI	50	0	5		0	0	50
2004	HA	PI	25	0	5		0	0	25
2005	ME	PI	15	0	5		0	0	15
2006	HA	PI	10	0	5		0	0	10
2006B	Plenum	PI	50	0	5		0	10	50
2009	OF	PI	80	0	5		0	0	80
2015	Cafeteria	PI	330	0	2		0	0	330
3001	AU	Wire	20	0	5		0	0	20
3001A	CR	FT	60	0	5		0	0	60
3004	Room	FT	50	0	5		0	0	50
3010	CR	FT	500	0	5	New Over	0	0	500
3011	CR	FT	500	0	5	New Over	0	0	500
3012	Stairs	FT	50	0	5	New Over	0	0	50
3113	CR	FT	500	0	5		0	0	500
3014	CR	FT	500	0	5		0	0	500
3016	Stairs	FT	40	0	5		0	0	40
3018	Stairs	FT	50	0	5		0	0	50
3019	CR	FT	600	0	5		0	0	600
3020	CR	FT	600	0	5		0	0	600
3021	CR	FT	600	0	5		0	0	600
3024	CR	FT	600	0	5		0	0	600

Homogeneous Areas Codes (Hom Area):
CK-caulking
CM-cementitious
CT-ceiling tiles
FT-floor tiles
GR-general roofing
LF-linoleum floor
PB-plasterboard (sheetrock)
PC-applied plaster ceiling
PF-pipe fittings
PI-pipe insulation
PW-applied plaster walls
PN-panel boards (transite)
PP-patching plaster
RF-roof flashing
SI-tanks, boilers, duct
SO-spray-on
TC-transite
TM-tar / mastic
VC-vibration cloth

Justification Codes:
AD-asbestos debris
AE-air erosion
DL-delamination
FC-flaking, crumbling
HA-highly accessible
PD-potential damage
PS-potential significant damage
VB-vibration
WD-water damage

Space Description Codes:
AT-attic
AU-auditorium
BR-boiler room
BT-bathroom
CF-conf. room
CL-closet
CR-classroom
CS-crawl space
GY-gymnasium
HA-hallway
LB-library
ME-mechanical
MP-multipurpose
OF-office
SS-slopsink
ST-storage

AHERA Assessment Categories:
1-damaged or significantly damaged TSI ACBM
2-damaged friable surfacing ACBM
3-significantly damaged friable surfacing ACBM
4-damaged or significantly damaged friable misc. ACBM
5-ACBM with potential for damage
6-ACBM with potential for significant damage
7-all other friable ACBM or friable suspect/presumed ACBM
X-non AHERA material; non ACBM and/or non-friable
O-no assessment category in original inspection report

3026	Stairs	FT	120	0	5		0	0	120
4012	CR	FT	450	0	5		0	0	450
4016	Stairs	FT	20	0	5		0	0	20
4017	Stairs	FT	50	0	5		0	0	50
4021	Stairs	FT	50	0	5		0	0	50
5001	Stairs	FT	50	0	5		0	0	50
5010	Stairs	FT	50	0	5		0	0	50
5014	HA	FT	190	0	5		0	0	190
5017	Art	FT	300	0	5		0	0	300
5017B	Closet	FT	50	0	5		0	0	50
5020	Shaft	Gasket	4	0	5		0	0	4
TOTALS			6579	0			0	0	6579

Some areas of floor tiles are beneath flooring materials

Homogeneous Areas Codes (Hom Area):
CK-caulking
CM-cementitious
CT-ceiling tiles
FT-floor tiles
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LF-linoleum floor
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AHERA Assessment Categories:
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3-significantly damaged friable surfacing ACBM
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6-ACBM with potential for significant damage
7-all other friable ACBM or friable suspect/presumed ACBM
X-non AHERA material; non ACBM and/or non-friable
O-no assessment category in original inspection report

Section 10 - INSPECTION & ASSESSMENT:

An AHERA inspection is conducted by a person currently certified by NYS DOL as an asbestos inspector. This certification must be updated annually. Once an AHERA inspection is complete, the inspector must submit the results to the LEA in an inspection report. There are 2 elements to an AHERA inspection: identification and physical assessment.

The initial inspection to identify all the ACBM in a building begins with locating and listing all homogenous areas of material that are suspected to contain asbestos. A homogeneous areas is an area of surfacing material, thermal system insulation, or miscellaneous material that is uniform in color and texture. Information is then gathered so that homogenous areas can be tied to the uses or functions of the spaces within each area. Suspected ACBM in a homogenous area or functional space must then be treated as ACBM unless bulk samples are taken and the sample analysis shows the material to be non-asbestos. Functional space means a room, group of rooms, or homogenous area designated by a person certified to prepare asbestos management plans, design abatement projects or conduct response actions. It is recommended that schools list ACBM on a room by room basis to aid in periodic surveillance, reinspection, operations and maintenance, renovation and abatement activities.

All interior materials suspected to contain asbestos must be categorized as one of the following 3 types:

* Surfacing materials
* Thermal system insulation
* Miscellaneous materials

Once a material is classified as a particular type, the inspector should identify areas where the materials are all of one type. Note that wings or additions added to a building should not be considered homogenous with the original structure. Likewise, building materials used in different buildings should not be considered homogeneous. If there is any reason to suspect that materials might be different, even if they appear similar, they should be assigned to separate homogeneous areas, and if it is determined that sampling is needed, such materials should be sampled separately.

Once the inspector has identified the homogenous areas in a building, he or she must gather information that will tie each area to the uses or functions occurring within it. The management planner will use the information gathered by the inspector to determine functional spaces. AHERA defines a functional space as a room, group of rooms or space in a building that has an identified use.

Under AHERA all materials suspected to be ACBM must be assumed to the ACM unless:

* The homogeneous area is sampled as required and the samples are analyzed and found to be non-asbestos.

* The suspect or assumed ACBM is in a building built after October 12, 1998, that is certified by an architect or engineer as being asbestos free.

The NYS DOH requires laboratories to state a disclaimer if polarizing light microscopy (PLM) is used to determine asbestos content for non-friable organically bound material (NOB), such as vinyl, plastic, rubber, asphalt based materials. To determine asbestos content with reliable accuracy for NOBs, transmission electron microscopy (TEM) analysis must be used. TEM is the only method allowed to quantify asbestos content for NOBs. Therefore, prior to

any asbestos abatement of these materials previously determined to be negative by PLM, it would be strongly recommended to either assume the material to be asbestos or to re-analyze the material using TEM.

Additionally EPA NESHAPS has provided written clarification to its final rule regarding situations where one or more layers (multi-layered system) in a suspect material may be present. In general, when a sample consists of 2 or more distinct layers or materials, each layer should be treated separately and the results reported by layer (discrete stratum). Specific examples include plaster/stucco systems, add-on materials to wallboard or other base materials, such as paint, etc. The significance of this rule is that in the past multi-layered system layers were averaged and reported as one result. A layer with asbestos could be reported as non-asbestos if the weight of the other layers overshadowed the asbestos content. By analyzing and reporting each layer of a multi-layer system separately, a layer could be asbestos containing and fall under EPA and NYS asbestos abatement procedures if the material is to be disturbed or abated. Therefore, prior to any asbestos abatement of these multi-layer system materials previously determined to be negative by PLM, it would be strongly recommended to either assume the material to be asbestos or to re-analyze each layer of the material separately and report the asbestos content of each layer separately using PLM or TEM (NOBs) as appropriate.

Where sampling and analysis is performed on suspected ACBM, the procedures must be properly documented and the sample's asbestos content must be 1% or less in order for any suspect material to be treated as asbestos-free.

AHERA sets forth requirements for bulk sampling based on they type of material involved. The below table shows the number of samples required to be collected from each type of homogenous area to meet regulations:

FIGURE I

BULK SAMPLING REQUIREMENTS

TYPE OF MATERIAL	MINIMUM SAMPLES
Friable Surfacing Material:	
Area > or = 1,000 sq. ft.	3
Area > 1,000 sq. ft. but < or = 5,000 sq. ft.	5
Area > 5,000 sq. ft.	7
Thermal System Insulation:	
TSI	3
Patched TSI (<6 sq. or linear ft.)	1
Material on fittings, elbows & valves	1 minimum; 3 recommended
Friable Miscellaneous Material	1 minimum; 3 recommended
Non-friable Suspected ACBM	1 minimum; 3 recommended

Bulk samples are not required from fiberglass, foam rubber or concrete.

AHERA requires that for newly acquired, owned, leased or other buildings used as school buildings, an asbestos inspection take place prior to use as a school building or within 30 days.

An architect or engineer responsible for the construction of a new school building built after October 12, 1988, or a NYS certified asbestos inspector should sign a statement that no ACBM was specified as a building material in any construction document for the building or no ACBM was used as a building material.

Once the asbestos inspector has identified all of the ACBM in a building, he or she must perform a physical assessment of ACBM. The physical assessment involves classifying the material into one of seven physical assessment categories:

Physical Assessment Categories:

1) Damaged or significantly damaged thermal system insulation ACM

2) Damaged friable surfacing ACM

3) Significantly damaged friable surfacing ACM

4) Damaged or significantly damaged friable miscellaneous ACM

5) ACBM with potential for damage

6) ACBM with potential for significant damage

7) Any remaining friable ACBM or friable suspected ACBM

Physical Assessment Characteristics:

* Location and amount of the material

* Condition of the material, specifying:

  - Type of damage or significant damage
  - Severity of damage
  - Extent or spread of damage

* Whether the material is accessible

* Material's potential for disturbance

* Known or suspected causes of damage or significant damage

* Preventative measures that might eliminate the reasonable likelihood undamaged ACM from becoming significantly damaged.

According to the AHERA preamble, significant damage exists where:

* Damage is evenly distributed across 10 percent or more of a functional space or is localized over 25 percent or more of a functional space.
* It is subject to major or continuing disturbance due to factors such as accessibility or under certain circumstances, vibration or air erosion.

If the certified asbestos inspector determines that there is a high or strong likelihood of major disturbance due to accessibility, vibration or air erosion, there is a potential for significant damage. AHERA Management Plan Inspection Report (Required Elements):

If the likelihood of any of these factors occurring is moderate, there is only a potential for damage.

Because the physical assessment is used to determine which response actions will be chosen to manage the asbestos, proper identification and assessment of ACBM are vital to the effective implementation of the AHERA program.

The results of an AHERA inspection or reinspection must be documented in an inspection report which becomes part of the asbestos management plan. All decisions regarding ACBM in the LEA's building will be based on the information found in this report, so it is vital that the report information be correct.

A. General Inspection Information:

1. Date of the inspection
2. Signature of each certified person making the inspection
3. NYS DOL certification number of each person making the inspection

B. Information on Sampling / Assumed ACBM:

1. Inventory of the locations of the homogeneous areas where samples are collected
2. Exact locations where each bulk sample is collected
3. Dates that samples are collected
4. Homogeneous areas where friable suspected ACBM is assumed ACM
5. Homogeneous areas where non-friable suspected ACBM is assumed to be ACM
6. Description of the manner used to determine sampling locations
7. Name and signature of each certified person who collected samples
8. NYS certification number of each asbestos inspector who collected the samples

C. Identification and Assessment Information:

1. List of whether the homogeneous areas identified in the report are surfacing material, thermal system insulation or miscellaneous material

2. Assessments made of friable materials and reasons for these assessments

3. Name and signature of each certified person making the assessments

4. NYS certification number of each asbestos inspector making the assessment

Section 11 - MANAGEMENT PLANNING:

Once the certified asbestos inspector has identified the ACBM in the building and has documented this information in the inspection report, a NYS certified asbestos management planner will use the report to identify and address hazards or potential hazards related to the friable ACBM identified. The information from the inspection report will become part of the management plan. The management plan, which is a site specific guidance document that the LEA designated person must follow in managing the ACBM present in each school building, must be prepared by a NYS certified management planner. A management plan must be updated at least once every 3 years following an asbestos reinspection and must also be updated to keep it current with ongoing operations and maintenance, periodic surveillance, inspection and response action activities.

AHERA requires that laboratories that perform the bulk material sampling analysis and final clearance air sample analysis be accredited by National Voluntary Laboratory Accreditation Program (NVLAP). In NYS, laboratory work must also be in compliance with the NYS DOH Environmental Laboratory Approval Program (ELAP) which certifies labs.

In the management plan, the asbestos management planner must recommend an appropriate response action (operations and maintenance, repair, encapsulation, enclosure or removal) for all areas of thermal system insulation and friable ACBM. The final decision on which action should be taken, however, rests with the LEA. Under AHERA, the response action to be taken must be sufficient to protect human health and the environment. Once it is determined which response actions meet these criteria, the LEA may choose the actions that are the least burdensome.

Selecting a Response Action:

The LEA shall select and implement in a timely manner the appropriate response actions consistent with the assessment conducted by the Inspector. Nothing precludes the removal of ACBM from a school building should removal be the response action preferred by the LEA.

* If damaged or significantly damaged thermal system insulation ACM is present in a building the LEA shall:

  - At least repair the damaged area

  - Remove the damaged material if it is not feasible, due to technological factors to repair the damage

  - Maintain all thermal system insulation ACM and its covering in an intact state and undamaged condition.

* If damaged friable surfacing ACM or damaged friable miscellaneous ACM is present in a building, the LEA shall select from among the following response actions:

  - Encapsulation

  - Enclosure

- Removal

- Repair

In selecting the response action, the LEA shall determine which of these response actions protects human health and the environment. For purposes of determining which one of these response actions are the least burdensome, the LEA may then consider local circumstances, including occupancy and use patterns within the school building, and its economic concerns including short- and long-term costs.

* If significantly damaged friable surfacing ACM or significantly damaged friable miscellaneous ACM is present in a building the LEA shall:

  - Immediately isolate the functional space and restrict access, unless isolation is not necessary to protect human health and the environment

  - Remove the material in the functional space or depending upon whether enclosure or encapsulation would be sufficient to protect human health and the environment, enclose or encapsulate

* If any friable surfacing ACM, thermal system insulation ACM or friable miscellaneous ACM that has potential for damage is present in a building the LEA shall at least:

  - Implement an O&M program

* If any friable surfacing ACM, thermal system insulation ACM or friable miscellaneous ACM that has potential for significant damage is present in a building, the LEA shall:

  - Implement an O&M program

  - Institute preventive measures appropriate to eliminate the reasonable likelihood that the ACM or its covering will become significantly damaged, deteriorate, or de-laminated

  - Remove the material as soon as possible if appropriate preventive measures cannot be effectively implemented or unless other response actions are determined to protect human health and the environment

AHERA Response Actions for Managing Asbestos:

A. Operations and Maintenance Program

A program of work practices designed to maintain friable ACBM in good condition, ensure cleanup of released asbestos fibers and prevent further release by minimizing and controlling friable ACBM disturbance or damage.

B. Repair

Returning damaged ACBM to an undamaged condition or to an intact state by replacing limited sections or patching damaged areas.

C. Encapsulation

Treating ACBM with a material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers. The encapsulant either creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant). Both types of encapsulant are applied to the material surface using airless spray equipment at low pressure to reduce release of fibers during the application.

D. Enclosure

This involves creating an airtight, impermeable permanent barrier around ACBM to prevent the release of asbestos fibers into the air. The barrier is typically attached physically or sprayed on. For example, materials such as PVC or corrugated metal may be fastened around insulating piping, or a barrier may be constructed around asbestos fire-proofing on structural members by spraying material that cures into a hard shell.

E. Removal

This involves the taking out or the stripping of substantially all ACBM from a damaged area, functional space or a homogeneous area.

The LEA is required to implement an O&M program whenever any friable ACBM is present or assumed to be present in a building. An O&M program is not appropriate as an initial response action for any damaged or significantly damaged material, however.

Repair, encapsulation, enclosure, removal or any other practices conducted as part of an O&M program which disturb asbestos are deemed asbestos abatement projects by NYS DOL. In NYS, any disturbance of any quantity of ACBM, whether during operations & maintenance, repair, enclosure, encapsulation or removal must be conducted in conformance with Industrial Code Rule 56. The quantity of the material disturbed or removed, the friability of the material and whether the school is public or non-public will determine the project requirements.
However, all projects, regardless of quantity, type and location will require that

* Work be performed by licensed contractors, trained and certified professionals

* Appropriate records be generated and maintained for 30 years.

* Notification must be provided to building faculty, staff and students generally 10 days prior to commencement of work.

* If during a minor project, the containment, such as glove-bag or tent leaks, fails, etc. independent third party air monitoring will be required.

Additionally,

* All small and large asbestos abatement projects and major fiber release episodes will require independent third party air monitoring

* All large projects will require notification to NYS DOL and U.S. EPA NESHAPS on proscribed forms.

All of the initial response actions implemented to control friable ACBM require a written project design specifying how to conduct the abatement project. The project design must be developed by a NYS certified asbestos project designer. Public works projects in NYS must be designed by a NYS licensed architect or engineer certified as an asbestos project designer.

Final Clearance:

Final clearance of a functional space after a response action to remove, encapsulate or enclose ACBM or material assumed to be ACBM involves 2 steps:

* Visual inspection

* Collection and analysis of air samples

A visual inspection involves visually examining the asbestos removal area for evidence that the abatement has been successfully completed. Visual inspections are also an important means for determining acceptable completion of minor asbestos abatement projects.

To avoid a potential conflict of interest, the inspection should be performed by an air sampling technical or project monitor not affiliated with the abatement contractor.

The inspection should be conducted as rigorously as possible with all spaces and surfaces where the abatement was conducted being extensively examined.

The aim of the visual inspection is to ensure that:

* Seals on windows, door and vents remained intact during the abatement

* Isolation barriers separating the abatement area from non-abatement areas are in place

* No evidence of debris, residue or dust is present in the abatement area.

Only after these conditions are verified does an abatement area pass final visual inspection, allowing final air sampling to be conducted. If failure occurs based upon the visual inspection, the contractor must correct all deficiencies prior to testing. If final air testing fails to meet air sampling and analysis requirements after the inspection, the site must be recleaned and an additional visual inspection conducted. The results of the visual inspection should always be documented and signed by the person conducting the visual inspection.

All schools must accomplish final air sampling and analysis of all removal, encapsulation, enclosure or repair projects by using transmission electron microscopy (TEM). No final air clearance is required for minor projects unless there is a break in the containment.

The TEM method involves the collection of at least 5 samples inside the functional space, five samples representative of air outside of the functional space collected at the same time as the indoor samples and 3 quality control samples (large) or 3 samples for small jobs.

The air samples must be collected using aggressive methods of artificially disturbing the air in the work are before sampling. The volume of air drawn must be equal to or greater than 1199 liters of air for a 25 millimeter filter.

If the average result of the 5 samples collected inside the functional space meets an average of 70 structures per square millimeter (large) or each of the 3 samples meets the 70 structures per square millimeter (small), the response action is considered complete. If final air clearance is not obtained the contractor must reclean. Alternatively, there is a statistical calculation which can be done after analyzing the outside samples and the blanks to determine whether the project is successfully completed. If this statistical calculation of all the samples (inside, outside and blanks) fails, recleaning must still be performed.

The phase contrast microscopy (PCM) method involves the collection of at least 3 samples (small projects) or 5 samples (large projects) inside the work area by aggressive methods. An equal number of samples outside the work area have to be collected along with 2 quality control samples. Large projects and some small projects conducted under applicable variance.

Unlike the TEM method, PCM does not distinguish between asbestos fibers and other types of fibers such as fiberglass. Unlike the TEM method, the PCM method does not call for the samples to be averaged; each sample stands on its own.

The clearance standard for PCM is 0.01 fibers per cubic centimeter. If all 3 or 5 (as applicable) samples pass this standard, the response action is considered complete. If even one sample fails to pass the standard, the contractor must reclean the area and re-sampling must be done.

FIGURE II

AIR SAMPLING & ANALYSIS REQUIREMENTS

ASBESTOS PROJECT	PRE ABATEMENT	DURING ABATEMENT	POST ABATEMENT
Large Projects > 260 lin. or 160 sq. ft.	PCM	PCM	TEM
Small Projects < 260 or > 25 lin. ft. to < 160 or > 10 sq. ft.	PCM	None Some variances may require during samples	TEM
Minor Projects < 25 lin or 10 sq. ft.	None	None	TEM only upon containment system integrity loss

A. General Information:

1. List of the names and address of all school buildings

2. Whether the school building has friable ACBM, non-friable ACBM and friable and non-friable ACBM assumed to be ACM

B. Designated Person Information:

1. Name, address, and telephone number of the LEA designated person

2. Course name, dates, and hours taken by the designated person

AHERA Management Plan (Required Elements - continued):

C. Inspector Information:

1. Date of inspection or reinspection

2. Name and signature of each certified person making the asbestos inspection or reinspection

3. NYS certification number of each person

D. Information on Sampling / Assumed ACBM:

1. Blueprint, diagram, or written description of each school building that identifies clearly each location and approximate footage of homogeneous areas where material was sampled for ACM

2. Exact location where each bulk sample was collected

3. Date of collection of each bulk sample

4. Homogeneous areas where friable suspected ACBM is assumed to be ACM

5. Homogeneous areas where non-friable suspected ACBM is assumed to be ACM

6. Description of the manner used to determine sampling locations

7. Name and signature of certified inspectors collecting samples

8. NYS certification number of certified inspectors collecting samples

E. Analysis of Samples:

1. Copy of the analysis of any bulk samples collected and analyzed

2. Name and address of any laboratory that analyzed bulk samples

3. Statement that any laboratory is NYS ELAP and NVLAP approved

4. Dates of any analysis performed

5. Name and signature of the person performing the analysis

AHERA Management Plan (Required Elements - continued):

F. Physical Assessment Information:

1. Description of the assessments required by AHERA of all ACBM and suspected ACBM

2. Name and signature of each certified person making the assessments

3. NYS certification number of each person making the assessments

G. Response Action Information:

1. Recommendations made to the LEA regarding response actions

2. Name and signature of each person making the recommendations

3. NYS certification number of each person making the recommendations

4. Detailed description of preventative measures and response actions to be taken, including methods to be used for any friable ACBM

5. Locations where such measures and actions will be taken

6. Reasons for selecting the response action or preventative measure

7. Schedule for beginning and completing each preventative measure and response action

H. Contractor Licensing Information:

1. With respect to the person who inspected for ACBM and who will design or carry out response actions

I. Information on ACBM Remaining After Response Actions:

1. A blueprint, diagram, or written description, updated as response actions are completed of any ACBM or suspected ACBM assumed to be ACM that remains in the school following response actions

2. Information on Future Activities

3. A plan for reinspection

AHERA Management Plan (Required Elements - continued):

4. A plan for operations and maintenance activities

5. A plan for periodic surveillance

6. Description of the management planner recommendations regarding additional cleaning as part of the O&M program

7. LEA response to any recommendations for additional cleaning

J. Information on Required Notifications:

1. Description of steps taken to inform workers and building occupants about inspections, response actions, and post-response actions

K. Cost Estimate:

1. Evaluation of the resources needed to complete response actions and carry out re-inspections, O&M activities, etc.

L. Additional Information:

1. The LEA may require each management plan to contain a statement signed by the certified management planner that such person has prepared or assisted in the preparation of such plan, or has reviewed such plan, and that such plan is in compliance with AHERA

FIGURE III

IMPLEMENTATION REQUIREMENTS UNDER AHERA

ITEM	DEADLINE
Management Plan	From July 9, 1989
O&M Program	Upon identification of any friable ACBM present or assumed
Reinspection	Completed by July 9, 2007
Submittal of Reinspection Report	Within 1 month of reinspection completion
Triennial Asbestos Reporting Form	Submitted by date to be determined by SED
O&M Training	Within 60 days after commencement of employment for awareness. For certification, prior to any handling
Periodic Surveillance	At least once each 6 months after a management plan is in effect by January 9 and July 9 annually.
Warning Labels	Posted ASAP after ID of ACBM in any routine maintenance area
Plan Availability	In the office of the LEA on-going
Isolate a Functional Space with Sig. Damaged Friable SM	Must be isolated immediately and access restricted if such measures are needed
Repair & Maintain Damaged or Sig. Damaged TSI	Must begin as soon as an asbestos management planner and the LEA determine that these conditions exist

At a minimum, the management plan must be reviewed and updated every three years. This should actually be an ongoing process, however, so that any time the management plan is found to be incomplete it can be corrected quickly. The designated person is responsible for keeping the records associated with the management plan up to date.

Some changes to the management plan, however, such as changes in the condition of ACBM found during the performance of periodic surveillance, reinspection, and reassessments required under AHERA can only be made by a certified management planner.

Section 12 - REINSPECTION & PERIODIC SURVEILLANCE:

Every 3 years after implementation of a management plan, a NYS certified asbestos inspector must conduct a reinspection of all friable and non-friable known and assumed ACM in every school building in order to determine if there has been any change in the condition of the ACBM.

A NYS certified management planner must then review the re-inspection report to identify any new hazard potential and revise the management plan to address newly identified hazards.

Based on the updated data, new response actions to address these hazards must be selected, and the actions must be carried out in a timely manner. AHERA established July 9, 1989 as the legal date by which the AHERA management plan must be implemented. NYS ED used this date as the date from which all 3 year reinspection must be completed by. The inspection report must be submitted to the LEA Designated Person within 1 month of completion.

NYS LEAs are required to report asbestos triennial reinspection information to NYS ED. Report forms are sent directly to each LEA by the Education Department. A separate reinspection form is required for each building. Information requested on the report form may be found in the building's asbestos management plan. The LEA designee is responsible for completing and signing the report.

Asbestos Reinspection Mandatory Elements:

* Visually reinspect and reassess the condition of all friable known and assumed ACBM

* Visually inspect material that was previously considered non-friable and touch the material to determine whether it has become friable since the last inspection or reinspection

* Identify any homogenous areas in which material has become friable since the last inspection or reinspection

* If necessary and approved by the LEA, collect bulk samples and submit them for analysis for any homogeneous area of newly friable material that is already assumed to be ACBM.

* Perform a physical assessment of the condition of the newly friable material in areas where samples are collected and of newly friable material in areas assumed to be ACBM

* Reassess the condition of friable known or assumed ACBM previously identified

Asbestos Reinspection Mandatory Elements (continued):

* Record and submit to the LEA designated person within 30 days the following information for inclusion in the management plan of the reinspection:

  - Dates of the reinspection
  - Name and signature of the person conducting the reinspection
  - NYS certification number of the person conducting the reinspection
  - Exact locations where samples were collected during the reinspection
  - Description of the manner used to determine sampling locations
  - Name and signature of the inspector who collected samples
  - NYS certification number of person collecting samples
  - Any assessments or reassessments made of friable ACBM
  - Name and signature of the asbestos inspector making the assessments
  - NYS certification number of the person making the assessments

* Review the results of the reinspection. This includes reviewing the original inspection report, periodic surveillance records and the completed reinspection forms and report. The management planner should conduct school visits and gather other information so that he or she can make effective response action recommendations.

* Make written response action and preventative measure recommendations for each area of friable surfacing and miscellaneous ACBM and each area of TSI ACBM. The management planner should determine whether additional cleaning is necessary and, if so, specify how, when and where to perform cleaning. The management planner should also include an implementation schedule for the recommended activities and make an estimate regarding the resources needed to conduct the activities

* Review the adequacy of the operations and maintenance program

* The recommendations should include a report of the name, signature and NYS certification number of the management planner and the date on which the management planner submitted the recommendations.

The Triennial Re-inspection Five Steps:

1) Review existing management plan and interview ACBM knowledgeable persons

2) Conduct walk-though of each functional space and homogeneous area identified as being ACBM or assumed ACBM and perform physical assessment of materials.

3) Prepare the reinspection report and update the management plan including operations and maintenance program by determining necessary response actions.

4) Prepare the NYS ED Triennial Asbestos Reporting Form.

5) Meet with the LEA Designee to review the inspection report and management plan including recommended response actions.

Periodic Surveillance:

At least once every 6 months after a management plan is in effect, the LEA must conduct a periodic visual surveillance in each building that contains ACBM or is assumed to contain ACBM. The surveillance does not have to be conducted by a certified person, but is should be conducted by the LEA designee or someone else familiar with the building and asbestos assessment.

Periodic surveillance involves the following steps:

* Conduct a visual inspection of all ACBM or assumed ACBM.

* Evaluate each homogeneous area considering the same factors considered when making a physical assessment:

    - ACBM condition (deterioration, physical damage, and water damage)
    - The potential for disturbance (frequency of potential contact, sources of vibration near the ACBM, and potential for air erosion.

* Report findings:

    - The date of the surveillance
    - The name of the person conducting the surveillance
    - Any change in condition of the ACBM or assumed ACBM

The person conducting periodic surveillance may not:

* Collect bulk samples (unless person is a certified NYS DOL inspector

* Determine friability

* Reassess the ACBM (place into 1 of 7 AHERA categories)

Section 13 - OPERATIONS & MAINTENANCE PROGRAM:

Introduction

Objectives & Elements

Location of ACBM

Labeling

Notification

Training

Employee Protection & Medical Surveillance

General Cleaning

Periodic Surveillance

Reinspection

Fiber Release Episodes

Permit System

OPERATIONS & MAINTENANCE PROGRAM (continued):

O&M Projects:

- Contact With ACBM Unlikely
- Accidental Disturbance of ACBM Possible
- Disturbance of ACBM Intended or Likely - Minor Projects (as per NYS DOL definition)
- ACBM Will be Disturbed - Minor Projects (as per NYS DOL definition)

Record Keeping

Introduction:

This Operations & Maintenance Program is to be used by the LEA operations, facilities, maintenance and custodial staff as a guide to maintenance practices involving or potentially involving the disturbance of asbestos, preventative measures, cleaning procedures and control of work performed by outside contractors near or with ACBM.

The management planner is responsible for recommending appropriate response actions for managing ACBM found in a school building. An asbestos operations and maintenance program must be implemented whenever any friable ACBM is present or assumed to be present in a school building or whenever any non-friable ACBM is about to become friable as a result of activities performed in the building.

In certain circumstances an O&M program may be selected as the initial response action. For example, this would be the case if an O&M program were selected as the response action to thermal system insulation ACM with potential for damage. In other circumstances, another response action, such as enclosure or encapsulation may be chosen; however, if this action will not be implemented immediately, then appropriate repair of the ACBM and an ongoing O&M program is required. For example, this would be the case if enclosure or encapsulation were selected as the response action to significantly damaged friable surfacing ACM.

This operations and maintenance program may only be used if disturbing 10 square feet or less or 25 linear feet or less (minor) of ACBM with documentation that personnel exposure is less than .1 f/cc (PEL) over an 8 hour time weighted average work day and 1 f/cc (EL) over a 30 minute worse-case sampling period as per a documented OSHA negative initial exposure assessment.

Objectives & Elements:

The principal objective of an O&M program is to minimize exposure of all occupants to asbestos fibers. To accomplish this goal, an O&M program includes work practices to:

* Maintain ACBM in good condition

* Ensure proper clean-up of asbestos fibers previously released

* Prevent further release of asbestos fibers

* Monitor the condition of ACBM

Since NESHAP and NYS DOL require that most ACBM be removed from building before demolition of renovation, an O&M program is not a permanent solution. It is also not a means by which small or large asbestos abatement projects can be accomplished. Furthermore, only projects for which a negative initial exposure assessment (exposure under the PEL and EL) can be documented are covered under this operations & maintenance program. If exposure data or the lack of a negative initial exposure assessment, additional procedures outside the scope of this operations and maintenance program including, but not limited to, local exhaust ventilation, enclosure or isolation of processes, ventilation of the regulated area, negative pressure enclosures, ambient and clearance monitoring, etc would be required.

The intentional disturbance of ACBM should be limited to the repair or removal of small areas of significantly damaged ACBM or to small areas where removal is necessary to make maintenance or minor renovation activities easier. Small and large asbestos abatement projects require extensive planning and technical expertise and therefore may not be part of this AHERA O&M program. Limited encapsulation and enclosure could be used to enhance an O&M program by reducing the likelihood of contact with the ACBM, however.

The mandatory O&M program must at least include the following elements:

* Cleaning

* Labeling

* Specialized work practices and procedures

* Work permit system

* Training

* Employee protection & medical surveillance

* Emergency response procedures

* Reporting

* Inspection procedures

* Record keeping

The O&M program can be divided into 4 types of projects:

1) Contact with ACBM unlikely

2) Accidental disturbance of ACBM possible

3) Disturbance of ACBM intended or likely - minor projects (as per NYS DOL definition)

4) ACBM will be disturbed - minor projects (as per NYS DOL definition)

Location of ACBM:

The O&M program addresses all types of ACBM present in the school building, including:

* Surfacing Materials

  Asbestos containing material that is sprayed-on, troweled-on, or otherwise applied to surfaces, such as acoustical plaster on ceilings and fire-proofing materials on structural members, or other materials on surfaces for acoustical, fire-proofing or other purposes.

* Thermal System Insulation

  Asbestos containing material applied to pipes, fittings, boilers, breaching, tanks, ducts or other interior structural components to prevent heat loss or gain or water condensation.

* Miscellaneous Materials

  Interior asbestos containing material on structural components, structural members or fixtures such as floor and ceiling tiles; does not include surfacing material or thermal system insulation.

All employees and outside contractors must be informed of the location and condition of asbestos containing materials in each building that they will be doing work in. Employees are informed during awareness training sessions held at least once within 60 days of assignment. Contractors are informed through a permit system whereby in soliciting work to be conducted, the specifications will detail whether asbestos materials will be encountered. If ACBM will be disturbed the contractor must be a licensed asbestos contractor using trained and certified workers and supervisors.

Any work involving the break-through of walls, columns, work above suspended ceilings, or flooring should be considered a project involving the potential for ACBM disturbance. Since the materials located behind or beneath these construction materials are not generally exposed they may not have been included in the management plan as suspect. Prudence would dictate that determinations be made for the potential to disturb asbestos before and ongoing during such work.

The information detailing the location and condition of ACBM is located in the Management Plan. The management plan will be situated in each school building and in the administrative office of the LEA designee.

If anyone is uncertain about whether a material is an ACBM or not, first check with the LEA designee and the school's management plan. If the material is not listed in the management plan or alternatively the material was tested negative, but there is a suspicion that the material may in fact be asbestos, do not conduct work without having the suspect material tested, or alternatively assume the suspect material is asbestos and proceed accordingly.

Labeling & Posting:

The LEA shall attach a warning label immediately adjacent to any friable and non-friable ACBM and suspected ACBM that is located in routine maintenance work areas at each school building. Such material includes friable ACBM that was responded to by means other than removal (such as encapsulation, enclosure or repair) and ACBM for which no response action was carried out. Labeling is not required in classrooms, offices or hallways, etc. Since routine maintenance areas can be defined differently by different persons, the conservative approach would be to label any maintenance room where employees or contract employees are reasonably expected to have to perform maintenance and operations such as response to pipe leaks, etc.

The labels must be prominently displayed in readily visible locations, must be in print that is readily visible due to its large size or bright color and must remain posted and legible until the ACBM that is labeled is removed. The warning label must read:

CAUTION: ASBESTOS. HAZARDOUS.
DO NOT DISTURB WITHOUT PROPER TRAINING & EQUIPMENT.

Unlike notification, labeling is not intended as a way to disseminate general information. Instead it is a last line of defense to prevent unprotected individuals from unknowingly disturbing ACBM.

Although non-asbestos materials do not have to be labeled, many school districts opt to label non-asbestos materials (such as replacement insulation materials following asbestos abatement, as follows:

ASBESTOS FREE MATERIAL.

The LEA shall ensure that warning signs that demarcate regulated areas shall be provided and displayed at each location where a regulated area is required. Signs shall be posted at such a distance from such a location that an employee may read the signs and take necessary protective steps before entering the area marked by the signs.

The warning signs shall bear the following information:

DANGER
ASBESTOS
CANCER & LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS & PROTECTION CLOTHING ARE REQUIRED
IN THIS AREA

The contractor shall post written notice at all direct means of access to the floor(s) of abatement or disturbance. The posting shall bear the following information:

ASBESTOS PROJECT

PROJECT LOCATION:

ASBESTOS TYPE & QUANTITY:

START / COMPLETION DATE:

CONTRACTOR NAME & LICENSE #:

AIR MONITOR NAME & ADDRESS:

LAB NAME & ADDRESS:

Notifications:

Notification is required at set time intervals and for specific activities under AHERA and NYS DOL. Notification is a method of providing accurate and timely information to the public, employees and government agencies.

All workers and building occupants, or their legal guardians are informed at least once each school year about asbestos inspections, response actions, post-response action activities, including periodic re-inspections and surveillance activities, that are planned or in progress.

All short term workers (contractors) who may come in contact with asbestos are provided with information regarding the location of known or assumed ACBM prior to starting any work.

Notification of the availability of the management plan is provided to all persons who have a need to know.

Prior to the disturbance or handling of asbestos during large asbestos abatement projects, notification is provided to EPA NESHAPS and NYS DOL. Some small projects also require that the contractor provide written pre-notification.

Any asbestos project greater than $10,000 or involving health and safety issues (non-O&M projects) must involve NYS ED notification.

Every contractor engaged in the abatement portion of a project shall post or otherwise provide written notification to residential and business occupants of a building 10 days prior to the commencement of work on any asbestos project in a building. The notification shall be given to those located on the floor or floors where the asbestos project is conducted and one floor above and one floor below the floor containing the project. Additionally, written notification shall be given to those occupants of adjacent buildings with direct horizontal access to the asbestos project floor(s). Posted notice shall be provided at all direct means of access to the floor. Notice shall remain in place until completion of the project.

Training:

All members of the maintenance and custodial staff who may work in a building that contains ACBM must receive a minimum of 2 hours of awareness training. Those members of the maintenance and custodial staff who conduct any activity that will disturb ACBM must receive additional training and NYS certification at either the Operations & Maintenance, Handler / Worker or Supervisor level, depending upon the activity to be performed.

Once the ACBM is identified or assumed to be present in a building, the LEA should start an annual custodial awareness program. All new employees must be trained within 60 days of work commencement. Such a program informs custodial and maintenance staff that asbestos exists in the building and provides basic information on how to avoid it. Custodial and maintenance employees who are aware of the presence of ACBM are less likely to disturb the materials and cause fiber release.

The designated person must document all levels of training and maintain records of all employee training.

If the school district plans on having employees handle any amount of asbestos as part of school operations and maintenance, whether planned or emergency in nature, training and NYS DOL certification will be needed in addition to the compliance with AHERA regulatory requirements.

Asbestos Awareness Training Includes:

* Information regarding asbestos and how it is typically used

* The health effects associated with asbestos exposure

* The type(s) of ACBM present in the building in which they work

* The exact location(s) of these materials in the building in which they work

* How individuals can avoid disturbing the ACBM

* How damage, deterioration, and de-lamination is recognized and to whom it should be reported

* How custodial and maintenance personnel should deal with these materials to prevent a fiber release

* The steps that will be or have been taken to protect the health and safety of building occupants

* The name and telephone number of the LEA designated person responsible for asbestos related activities in the building

* The availability and location of the asbestos management plan

NYS DOL Certification Training Levels:

* **Operations & Maintenance:**

  Any employer who has his / her own employees perform operations, maintenance and repair activities of small-scale and short-duration (minor asbestos abatement projects) which may disturb asbestos or asbestos material.

  2 days of training with ½ day annual refresher training requirement.

* **Restricted Asbestos Handler - Allied Trades:**

  Any person performing any limited or special tasks in preparation for or ancillary to an asbestos project, such as carpenter, electrician, plumber or any other person who may incidentally disturb asbestos during the course of any employment. The training and certification will be specific to the type of activity the person is to perform. Restricted handlers are not permitted to intentionally remove asbestos

  1.5 days of training with ½ day annual refresher training requirement.

* **Handler / Worker:**

  Any person who, within a work area, removes, encapsulates or disturbs friable asbestos or who handles asbestos material in any manner which may result in the release of asbestos fiber.

A Handler may perform any of the duties of the Operations & Maintenance or Restricted Handler - Allied Trades.

4 days of training with ½ day annual refresher training requirement.

* **Supervisor:**

Any person who performs supervision of persons (other than authorized visitors) permitted to enter the work area. All asbestos abatement projects must be overseen by a certified supervisor. The supervisor level of training and certification is also mandatory for a company or entity to become licensed as an asbestos handling company in NYS.

A Handler may not upgrade to a Supervisor. A supervisor may perform any of the duties of the Operations & Maintenance, Restricted Handler - Allied Trades or Worker.

5 days of training with ½ day annual refresher training requirement.

* **Inspector:**

Any person who performs the limited tasks involved in the survey, identification and assessment of the condition of asbestos and the recording and reporting thereof, or who is involved in the collection of bulk samples of asbestos material or suspected asbestos material for laboratory analysis.

Although persons do not have to be inspectors to conduct periodic surveillance it would be beneficial.

3 days of training with ½ day annual refresher training requirement.

* **Management Planner:**

Any person who assesses the hazard posed by the presence of asbestos or asbestos-containing material and/ or who recommends appropriate response actions and a schedule for such response actions.

The prerequisite is Inspector training and certification. In lieu of a Designated Person course, the Inspector / Management Planner course would be minimal suitable training.

2 days of training with ½ day annual refresher training requirement (Inspector / Inspector Refresher is course pre-requisite).

* **Project Designer:**

Any person who plans the scope, timing, phasing and /or re-mediation methods to be utilized on any asbestos project.

3 days of training with 1 day annual refresher training requirement.

* **LEA Designated Person:**

Any person who is designated by the LEA to oversee responsibility for asbestos issues including the implementation of the management plan.

LEA Designated Person specific training emphasizing role and duties of the designated person and / or Inspector / Management Planner and / or Supervisor training.

Employee Protection & Medical Surveillance:

A worker protection program includes engineering control, personal exposure monitoring, medical surveillance and personal protection. While engineering controls are the preferred method of worker protection, there will still be a need to use personal protective equipment if asbestos is to be disturbed.

Two key aspects of personal protection are the use of respiratory protection and protective clothing for workers in an asbestos O&M program. According to the OSHA regulations, a written respiratory protection program and a written protective equipment program is necessary whenever employees may have to wear such equipment and clothing or such equipment and clothing is made available to workers.

Proper respiratory protection is an integral part of all custodial and maintenance activities involving potential exposure to asbestos. When in doubt about exposure during certain work operations, respiratory protection should be provided.

Although OSHA specifies several general types of respirators for protection against airborne asbestos during construction activities including small-scale, short-duration work, the half-face or full-face HEPA air purifying, negative pressure respirator should be adequate. However, employees have the legal right to request and be provided at no cost a powered air purifying respirator (PAPR). Note that OSHA has disallowed the use of disposable paper masks for use against asbestos. Also note that depending upon the task of the worker, combination cartridges such as HEPA / organic vapor may be needed. Organic vapor cartridges are to be used when working with solvents, adhesives and encapsulants containing hydrocarbons. Note that in certain situations, organic vapor air purifying respirators may not be sufficient to protect health and safety. All respirators must be NIOSH / MSHA approved and appropriate to the task, exposure and exposure concentration anticipated.

Personal air sampling is not the same as area air monitoring. Personal air sampling, required by OSHA, is designed to measure an individual worker's exposure to fibers while the worker is conducting tasks that may disturb ACBM.

The sampling device is worn by the worker and positioned so that it samples air in the worker's breathing zone. The cassette is the same used for area sampling with PCM analysis. The air cassettes are submitted to laboratories for analysis by PCM. The results are compared to the OSHA Permissible Exposure Limit (PEL) of 0.1 fibers per cubic centimeter to determine the level of acceptable respiratory protection.

OSHA requires that each school district have their competent person conduct an exposure assessment immediately before or at the initiation of the asbestos operation to ascertain expected exposures during that operation.

The assessment must be completed in time to comply with requirements which are triggered by exposure data or the lack of a "negative exposure assessment" and to provide necessary information to assure that all control systems planned are appropriate for that operation and will work properly.

For any specific asbestos job which will be performed by employees who have been trained and certified, the employer may demonstrate that employee exposures will be below the PEL and EL by data which conform to the following criteria:

1) Objective data demonstrating that the product or material containing asbestos or the activity involving such project or material cannot release airborne fibers under those work conditions having the greatest potential for releasing asbestos

2) Where the employer has monitored prior asbestos jobs for the PEL and EL within 12 months of the current or projected job, the monitoring and analysis were performed in compliance with the OSHA asbestos standard in effect and the data were obtained during work operations conducted under work-place conditions closely resembling the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations, the operations were conducted by employees whose training and experience are no more extensive than that of employees performing the current job.

3) The results of initial exposure monitoring of the current job made from breathing zone air samples of each employee covered operations which are most likely during the performance of the entire asbestos job to result in exposures over the PELs

The purpose of a medical surveillance program is to determine whether or not an employee is healthy enough to wear a respirator and to detect any health changes in an employee resulting from working in asbestos-contaminated areas. The standard tests and procedures which the physician will perform include:

* Competing of a specialty questionnaire

* Interview with a physician

* Pulmonary function tests

* Physical examination

* Other tests as needed including chest x-ray

A Protective Equipment Program Includes:

* The selection of approved respirators, clothing, and their protective items such as gloves, hard hats, protective shoes or boots, hearing protection and eye protection suitable to the hazards to which the worker is exposed

* Written operating procedures

* Air testing to determine suitable respiratory protection

* Personnel responsibilities for cleaning, storage, repair and disposal

* Medical examination of workers for respirator use

* Training users in proper equipment use and limitations

* Respirator fit testing

* Work site supervision including site inspections and program evaluation

General Cleaning:

Unless the building has been cleaned using similar methods in the previous 6 months, all areas of a building where friable ACBM, friable suspected ACBM assumed to be ACM or significantly damaged thermal system insulation is present must be cleaned at least once after the completion of the AHERA inspection and before the initiation of any response action other than O&M activities or repair. The cleaning must include the following:

* HEPA vacuuming or steam cleaning all carpets

* HEPA vacuuming or wet cleaning all other floors and all other horizontal surfaces

* Disposing of all debris, dust, filters, mop-heads and cloths in sealed, leak-tight containers as asbestos contaminated waste

The management planner may also recommend in the management plan that additional cleaning be performed. The methods and frequency of any additional cleaning recommended will appear in the management plan.

In areas with damaged or significantly damaged friable ACBM or obvious dust and debris which may be asbestos containing, clean-up shall be performed by employees trained and certified at least at the level of Operations & Maintenance.

To determine whether dust contains asbestos or whether there is active asbestos fall-out from friable damaged or significantly damaged ACBM, dust monitoring may be performed.

Dust monitoring is different from air or bulk testing. Dust monitoring may be passive or active. Active dust monitoring involves the collection of dust from a horizontal surface such as a table top with a collection device connected to a cassette. Passive dust monitoring involves the use of a collection can for settling dust over a specific period of time, usually minimally one week.

Dust monitoring analysis may be done by PLM to qualitatively determine the presence or absence of asbestos as a screening method or by TEM to quantitatively determine the concentration of asbestos. Currently there are no regulatory standards to compare analyzed results to although there are industry guidelines.

Dust monitoring should only be performed by a person knowledgeable in the procedure for accurate analysis of the laboratory results is critical.

Periodic Surveillance:

At least once every 6 months after the management plan is in effect, the LEA shall conduct a periodic surveillance in each school building with known or assumed ACBM.

The periodic surveillance shall include a visual inspection of all areas that have been identified in the management plan as ACBM and any changes in the condition of the ACBM.

If work will involve the potential for disturbance of ACBM such as when going above a suspended ceiling where known damaged and friable ACBM material is present, such work should be conducted during non-occupied times using basic dust control strategies such as:

* Restricting access

* Shutting off or restricting the HVAC system

* Drop cloths should be placed under the area

* Any generated visible dust should be cleaned up using wet methods and / or HEPA vacuum

* The use of personal protective equipment including respirator

* General care

This information shall be recorded as well as the date and the name of the person performing the surveillance. This information must be submitted to the Designated Person so that it may be included in the Management Plan.

Reinspection:

At least every 3 years after implementation of a management plan, a NYS certified asbestos inspector must conduct a reinspection of all friable and non-friable known and assumed ACM in every school building in order to determine if there has been any change in the condition of the ACBM.

A NYS certified management planner must then review the re-inspection report to identify any new hazard potential and revise the management plan to address newly identified hazards. Based on the updated data, new response actions to address these hazards must be select, and the actions must be carried out in a timely manner.

AHERA established July 9, 1989 as the legal date by which AHERA must be implemented. NYS ED used this date as the date from which all 3 year reinspection must be completed by.

If work will involve the potential for disturbance of ACBM such as when going above a suspended ceiling where known damaged and friable ACBM material is present or collecting bulk samples, such work should be conducted during non-occupied times using basic dust control strategies such as:

* Restricting access

* Shutting off or restricting the HVAC system

* Drop cloths should be placed under the area

* Any generated visible dust should be cleaned up using wet methods and / or HEPA vacuum

* The use of personal protective equipment including respirator

* General care and the use of wet methods

Fiber Release Episodes:

As long as ACBM remains in a building, there is the potential for a fiber release episode. Therefore, custodial and maintenance workers should always report any of the following occurrences to the LEA designated person for follow-up action:

* Any debris found on the floor or other horizontal surface

* Any water or physical damage to the ACBM

* Any other evidence of possible fiber release

* Any change in the condition of the ACBM

* Workers working in an area without permission or authorization from the LEA designee

Special procedures are generally needed to minimize the spread of fibers throughout the building after asbestos fiber releases occur, such as the partial collapse of an ACBM ceiling or wall. These procedures are needed whether the asbestos disturbance was intentional or unintentional.

The procedures to be followed will vary according to the following:

* Amount of material affected (minor or major fiber release episode)

* The extent of fiber release from the ACBM

* The relationship of the release area to the air handling systems

* Whether the release site is accessible to building occupants

Depending on the severity of the episode, asbestos abatement consultants and contractors may be needed to develop

a strategy for conducting assessment and clean-up operations.

Minor Fiber Release Episode First Steps:

A minor fiber release episode consists of the sudden, unexpected falling or dislodging of three square or linear feet or less of friable ACBM. AHERA requires that when such an event occurs, the following is conducted:

* The debris is thoroughly saturated using wet methods

* The area is cleaned up

* The asbestos debris is placed in a sealed, leak-tight container

* The area of damaged ACBM is repaired with materials which are asbestos free.

In-house trained and certified operations and maintenance, handlers or supervisors may respond to a minor fiber release episode. Restricting access to the public to the area affected may be needed as may restricting a local air handling system. Testing may be conducted to determine the extent of the area affected and whether clean-up efforts were effective.

Major Fiber Release Episode First Steps:

A major fiber release episode consists of the falling or dislodging of more than 3 square feet or linear feet of friable ACBM. AHERA requires that when such an event occurs, the following is conducted:

* Entry into the area is restricted and signs posted to prevent entry into the area other than those necessary to perform the response action

* The air handling system is shut off or temporarily modified to prevent the distribution of fibers to other areas of the building.

* The debris is thoroughly saturated using wet methods

* The area is cleaned up

* The asbestos debris is placed in a sealed, leak-tight container

* Abatement work (response action) is planned and carried out by a person licensed and certified by NYS DOL.

After a response action is implemented to manage a major fiber release episode, the final air clearance requirements of AHERA must be met before the response action is considered completed. Any sudden and unexpected fiber release episode must be documented and included in the management plan regardless of whether the LEA uses in-house staff or an outside asbestos contractor to implement an appropriate response action.

Permit System:

Minimizing accidental disturbances of ACBM during maintenance and renovation operations is an important but

difficult task for the LEA designated person. One way that a designated person can control such disturbances is by establishing a permit system where all work orders or requests are processed through the designated person. This procedure also helps the LEA designated person to record and update the asbestos management plan.

Under a permit system, all requests for maintenance or renovation activities are given to the designated person before a work order to proceed is issued. The designated person then checks the management plan for information about the presence of ACBM where work is to be performed and physically inspects the area in question to make sure that the records reflect actual conditions. If no asbestos is present, the designated person can sign and issue the work order. If ACBM is present the designated person can first have his trained and certified in-house personnel perform the abatement (if a minor project). In situations where a small or large asbestos abatement project needs to be performed, the maintenance or renovation work will need to be delayed until an asbestos abatement project can be performed by a NYS DOL licensed asbestos contractor.

The permit system should be in place for all facility maintenance work conducted by the LEA staff, outside contractors and outside short-term workers.

When outside contractors or short-term workers are likely to come into contact with ACBM in a school building, they should be fully aware of where ACBM is in the building and follow the same procedures followed by the school staff. This would include the need for a licensed company employing trained and certified personnel to perform the work.

O&M Projects:

In buildings where ACBM is present, routine maintenance activities, such as work in light fixtures, plumbing fixtures, pipes, registers, HVAC ducts, other accessible parts of a building's utility systems, above suspended ceiling tiles and below tiled floors can disturb ACBM and raise levels of airborne asbestos. As a result, maintenance workers should be instructed not to perform any maintenance work that could disturb ACBM unless specific work practices are used and workers are asbestos certified. In determining which work practices should be followed, activities should be placed into one of the following 4 categories:

1) Contact with ACBM unlikely

2) Accidental disturbance of ACBM possible

3) Disturbance of ACBM intended or likely - minor projects (as per NYS DOL definition)

4) ACBM will be disturbed - minor projects (as per NYS DOL definition)

Small and large asbestos abatement projects are outside the scope of this operations and maintenance program. Certified consultants and contractors should be involved in these projects to determine the best course of action.

Contact With ACBM Unlikely:

In some buildings with ACBM many routine maintenance activities can be conducted without contacting the ACBM. For example, changing a light bulb in a fixture that has asbestos containing acoustical plaster nearby can usually be performed without jarring the fixture. In situations where contact with ACBM is unlikely, the only precaution other than normal care generally necessary is to ensure that respirators, disposable suits and a HEPA vacuum are available if needed. These do not have to be taken to the site of the project; they should just be available at a known location.

When maintenance is performed in parts of the building that are free of ACBM, no special precautions are usually needed. Exceptions would include:

* Work in an area containing no ACBM that causes vibrations to be transferred to a location where ACBM is present

* Work behind walls, below floors or above ceilings which may disturb previously unexposed and unidentified asbestos

* Work on a material previously analyzed to be non-asbestos, but which is layered such as wall plaster or non-friable organically bound such as floor tile or mastic. In this case the material should be re-identified as ACBM and abated as such or re-tested and determined by current methods to be non-asbestos.

Accidental Disturbance of ACBM Possible:

Where routine maintenance and repair activities are conducted on fixtures or system parts that are located near friable ACBM, maintenance workers may unintentionally disturb the ACBM and release asbestos fibers. Maintenance work on ventilation ducts in an air handling room where asbestos fire-proofing is on the structural beams could accidently disturb the fire-proofing, for example.

Special work practices such as wet wiping, area isolation, and HEPA vacuuming, and the use of personal protective equipment such as respirators and protective clothing, may be needed where disturbance of ACBM is possible. The need for these practices varies with the situation. For example, removing light fixtures located near surfacing ACBM may disturb the material and might involve the use of special cleaning, possibly area isolation and respiratory protection. Periodic emptying of a trash can near heavily encapsulated asbestos containing plaster may not disturb the material at all, so no special work practices would generally be necessary.

These work practices and procedures are intended to ensure that disturbance of any ACBM during O&M activities should be minimized, or carried out under controlled conditions when the disturbance is required by the nature of a specific O&M task.

The following general actions may be needed for projects where personnel will be working near ACBM or their work may affect ACBM:

* Try to schedule activity after most occupants have left the building

* Restrict entry into the area where the work will take place

* Use trained and certified personnel

Additional measures if disturbance is about to occur or may occur:

* Provide written notice to occupants

* All project areas shall be vacated by the occupants prior to work area preparation and until full abatement has been achieved.

* Isolate the project area by cordoning it off with barrier tape and/or plastic sheeting and make the area accessible through only one entrance / exit

* Caution signs shall be posted at any location and approaches to a location wherever airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted that permit a person to read the sign and take the necessary protective measures to avoid exposure

* Shut off or temporarily modify the air handling system

* Use proper work practices such as wet methods, personal protective equipment, HEPA vacuums, mini enclosures, glove bags, etc. to inhibit the release of asbestos fibers.

* If repair, encapsulation or enclosure of the ACBM is needed, use proper repair practices (only minor projects are covered in this O&M program).

* If removal of the ACBM is needed, use proper removal practices (only minor projects are covered in this O&M program) using trained and certified personnel, including clean-up the work area using wet methods and / or HEPA vacuum

* Provide worker decontamination facilities which may be adjacent or remote to the restricted work area, if asbestos is about to be disturbed. If remote, there must be an attached equipment room to the work area which may consist of poly sheeting for decontamination of personnel and equipment

Refer to minor project requirements.

Disturbance of ACBM Intended or Likely:

Some maintenance and repair activities will make ACBM disturbance almost unavoidable. Installing new sprinkler or piping system will make it necessary to hang pipes from structural members or from the ceiling, and if the beams or ceiling are insulated with ACBM, the ACBM will be scraped away to install hangers. Similarly, pulling cables or wires through spaces with ACBM or ACBM debris is likely to dislodge pieces of the ACBM or disturb ACBM debris and dust. Any time ceiling tiles are moved to allow for entry into the space above a suspended ceiling, settled dust on top of the tiles will be recirculated into the air. If the beams or decking above the ceiling are covered with ACBM, the dust is likely to contain asbestos fibers.

The designated person should not allow such intentional disturbance of ACBM to proceed in an uncontrolled manner. Rather work should proceed according to the O&M program procedures.

The following general actions will be needed for projects where personnel will be intentionally or likely to disturb asbestos:

* Provide written notice to occupants

* All project areas shall be vacated by the occupants prior to work area preparation and until full abatement has been achieved.

* Isolate the project area by cordoning it off with barrier tape and/or plastic sheeting and make the area accessible

through only one entrance / exit

* Caution signs shall be posted at any location and approaches to a location wherever airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted that permit a person to read the sign and take the necessary protective measures to avoid exposure

* Restrict entry into the area where the work will take place using trained and certified personnel

* Shut off or temporarily modify the air handling system

* Use proper work practices such as wet methods, respiratory protection, protective clothing, HEPA vacuums, mini enclosures, glove bags, etc. to inhibit the release of asbestos fibers, including clean-up the work area using wet methods and / or HEPA vacuum

* If repair, encapsulation or enclosure of the ACBM is needed, use proper repair practices (only minor projects are covered in this O&M program).

* If removal of the ACBM is needed, use proper removal practices (only minor projects are covered in this O&M program)

* Provide worker decontamination facilities which may be adjacent or remote to the restricted work area. If remote, there must be an attached equipment room to the work area which may consist of poly sheeting for decontamination of personnel and equipment

Refer to Minor Project requirements.

ACBM Will Be Disturbed:

Any work that involves the removal, encapsulation, enclosure or disturbance of friable asbestos or any handling of asbestos material that may result in the release of asbestos fiber is considered an asbestos project under NYS DOL. If an LEA decides to use its own staff to perform an asbestos project, the LEA must be licensed as a NYS DOL asbestos contractor and have a NYS certified supervisor on staff. Any staff who disturb asbestos must be NYS DOL certified asbestos handlers. Work must be conducted in accordance with NYS DOL Industrial Code Rule 56 and U.S. OSHA 1926.1101.

The following general actions will be needed for projects where asbestos will be disturbed:

* Provide written notice to occupants

* All project areas shall be vacated by the occupants prior to work area preparation and until full abatement has been achieved.

* Isolate the project area by cordoning it off with barrier tape or line and make the area accessible through only one entrance / exit

* Caution signs shall be posted at any location and approaches to a location wherever airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted that permit a person to read the sign

and take the necessary protective measures to avoid exposure

* Restrict entry into the area where the work will take place using trained and certified personnel

* Shut off or temporarily modify the air handling system

* Use proper work practices such as wet methods, respiratory protection, protective clothing, HEPA vacuums, mini enclosures, glove bags, etc. to inhibit the release of asbestos fibers, including clean-up the work area using wet methods and / or HEPA vacuum

* If repair, encapsulation or enclosure of the ACBM is needed, use proper repair practices (only minor projects are covered in this O&M program).

* If removal of the ACBM is needed, use proper removal practices (only minor projects are covered in this O&M program)

* Provide worker decontamination facilities which may be adjacent or remote to the restricted work area. If remote, there must be an attached equipment room to the work area which may consist of poly sheeting for decontamination of personnel and equipment

Refer to minor project requirements.

<u>To Become a Licensed Asbestos Contractor:</u>

1) Determine whether becoming a licensed abatement contractor will affect your insurance policy, policy premiums, policy coverage, workman's compensation and disability premiums and employee contract agreements.

2) If the LEA still wishes to become a licensed asbestos contractor, at least 1 person will need to take the 5 day asbestos supervisor course. The course fee is approximately $500 per person. Annually a 1 day refresher course is required.

   Any other person who disturbs asbestos as part of the limited Operations & Maintenance program (minor projects only) must be trained and certified as operations & maintenance. Any other person who removes, handles or disturbs asbestos outside of the limited O&M program must be trained and certified as a handler. However, since upgrade is not possible and in many cases it is difficult to determine in advance whether the required work is minor and within the accepted limits of the O&M program, Supervisor training and certification is recommended for all employees who remove, handle or disturb asbestos.

3) Following successful completion of the course, including examination, the person will submit an application to NYS DOL. The Supervisor certification is $50 per person per year. Certification will take approximately 3 - 4 weeks.

4) Following receipt of Supervisor certificate, the LEA will submit an application to NYS DOL for licensure as an Asbestos Handling Contractor. The school will need to show proof of NYS worker's compensation and disability insurance. License fee to NYS DOL is $300 per year. Licensure takes approximately 3 - 4 weeks.

5) The LEA will need to buy or rent the appropriate equipment to conduct minor asbestos projects.

6) Small and large asbestos abatement projects require notification to EPA NESHAPS and NYS DOL as well as payment of project fees to NYS DOL. Any variances from specified procedures will require payment of $350 per project for a job site specific variance to NYS DOL.

7) Provide respiratory protection to workers

8) Have workers provided with respirators fit-tested biannually

9) Have workers provided with respirators medically evaluated annually

10) Have a written respiratory protection program tailored to your school district

11) Have a written protective clothing and equipment program tailored to your school district

12) Have a written hazard communication program tailored to your school district

13) Develop a personal air monitoring program (exposure assessment)

14) Contract with an air monitoring company to conduct asbestos project air testing as needed

15) Contract with a licensed hauler to remove ACBM debris

16) Contract with a safety supply house to purchase materials and equipment as needed

<u>Equipment and materials for Minor Asbestos Projects:</u>

* HEPA vacuum (2 recommended)
* Tyvek suits, gloves, boots, hard hats, safety goggles and hearing protection
* Half-face / full face / PAPR respirators (as appropriate)
* HEPA and organic vapor cartridges (as appropriate)
* 6 mil polyethylene sheeting - fire retardant
* Encapsulant (bridging and penetrating)
* Warning labels and signs
* Asbestos free labels
* Glove bags (horizontal, vertical)
* Duct tape
* Asbestos waste bags
* Decontamination facility (3 stage)
* Water filtration system for shower water
* Associated hand tools
* Spray adhesive
* Wet cloth wrap
* Personal air sampling pump
* PCM cassettes
* Rotometer for personal air sampling pump calibration

* Surfactant (wetting agent)
* Smoke test kit (for glove-bags and respirator fit testing)
* Water sprayers
* Expandable foam sealant
* Portable ground fault circuit interrupter for hand-tools and equipment
* Portable air ventilation systems (air handling units) - optional
* Spray glue

Minor Project Procedures:

All corrective actions shall be performed using non-asbestos material. Such actions shall include enclosure patch-up, spot removal, spot patch-up and spot encapsulation.

Only the following projects may be performed under this operations & maintenance program:

1) Class I projects involving the removal of 10 square feet or 25 linear feet of thermal system insulation or surfacing material where personal exposures can be documented as being less than the PEL and EL through an initial negative exposure assessment.

2) Class II projects involving 10 square feet or 25 linear feet of miscellaneous material where personal exposures can be documented as being less than the PEL and EL through an initial negative exposure assessment.

3) Class III projects involving repair and maintenance procedures involving 10 square feet or 25 linear feet of thermal system insulation or surfacing material where personal exposures can be documented as being less than the PEL and EL through an initial negative exposure assessment.

4) Class IV projects involving minor fiber release episodes and major fiber release episodes involving 10 square feet or 25 linear feet of debris, waste and dust where personal exposures can be documented as being less than the PEL and EL through an initial negative exposure assessment.

All Class I, II and III projects must be completed inside a regulated work area. Class IV shall be conducted within a regulated area where airborne concentrations of asbestos exceed or there is a reasonable possibility that they may exceed the PEL. A project designer will determine whether a Class IV project involving a major fiber release episode requires a regulated area.

Asbestos Pipe & Fitting Insulation Work:

* **Class I minor removal operations**
* **Class III repair and maintenance operations**

The following procedures shall be followed when removing or repairing pipe and fitting insulation:

1) Provide notice to faculty, students and staff generally 10 days prior to project commencement

2) All project areas shall be vacated by the occupants prior to work area preparation and until full abatement has been achieved.

Asbestos Pipe & Fitting Insulation Work (continued):

3) Isolate (demarcate) the project area by cordoning it off with barrier tape or line and make the area accessible through only one entrance / exit

4) Caution signs shall be posted to demarcate the regulated area at any location and approaches to a location wherever airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted that permit a person to read the sign and take the necessary protective measures to avoid exposure

5) Restrict entry into the area where the work will take place using trained and certified personnel (authorized persons)

6) Shut off or temporarily modify the air handling system. For class I removals, seal the HVAC system with a double layer of 6 mil plastic

7) Use personal protective equipment including disposable clothing and a HEPA dual cartridge air purifying respirator

8) Provide worker decontamination facilities which may be adjacent or remote to the restricted work area. If remote, the employer must establish an equipment room or area that is adjacent to the regulated area for the decontamination of employees and their equipment which is contaminated with asbestos which shall consist of an area covered by a impermeable drop cloth on the floor. The area must be of sufficient size as to accommodate cleaning of equipment and removing personal protective equipment without spreading contamination beyond the area (as determined by visible accumulation). The disposable suit shall be cleaned with a HEPA vacuum before it is removed. Donning a new suit and still wearing the respirator, proceed to off-site shower

9) Glove-bag operations shall be performed using commercially available glove-bags of at least 6 mil transparent plastic and no larger then needed. The bags shall be seamless.

10) When abating pipe insulation, the pipe insulation diameter worked shall not exceed ½ the bag working length.

11) Duct tape shall be placed securely around the affected area to form a smooth seal. The glove-bag shall then be secured to the duct tape and sealed airtight.

12) The glove-bag seal shall be subjected to and pass a smoke test by aspirating the contents of a smoke tube through the water access of the bag, twist sealing the access port and squeezing the bag, checking for any leakage. If leakage is identified, any leaks shall be sealed.

13) If the material adjacent to the work section is damaged or if it terminates, is jointed or contains an irregularity adjacent to the work section, the material shall be wrapped in at least 6 mil fire retardant plastic sheeting and sealed airtight with duct tape.

Asbestos Pipe & Fitting Insulation Work (continued):

14) Impermeable drop-cloths shall be placed on surfaces beneath all removal activity

15) All objects within the regulated area shall be covered with plastic sheeting which is secured by duct tape

16) All asbestos material within the secured glove-bag shall be wetted with amended water prior to stripping.

17) After the asbestos material has been stripped, the surfaces from which it has been removed shall be saturated with amended water and scrubbed with a brush to remove all visible asbestos material. The surfaces from which it has been removed, the interior of the bag, the affected area and tools shall then be thoroughly wetted with amended water.

18) When abating pipe insulation, any pipe insulation ends created shall be sealed with wet cloth, end caps, spray glue or any compatible combination of these.

19) A HEPA vacuum shall be used to collapse the glove-bag

20) With the glove-bag collapsed and the asbestos material in the bottom of the bag, twist the bag several times and tape the twist to seal that section. The tool pouch shall be separated from the bag by twisting it several times, taping the twist and thus sealing the pouch. Alternatively, the tools may be pulled through with one or both glove inserts, thus turning the gloves inside out. The gloves shall then be twisted several times, taped and thus sealed.

21) At least a six mil plastic bag shall be used to contain the glove-bag while it is still attached to the affected area. The bag shall then be detached from the affected area by removing the duct tape.

22) The glove-bag shall be placed into at least a six mil plastic waste bag, sealed airtight and removed from the project area for storage and disposal.

23) Glove-bags may be used only once and may not be moved.

24) Glove-bags shall not be used on surfaces whose temperature exceeds 150 degrees F.

25) If at any time during the glove-bag operation, the bag tears, breaks or falls off, stop work, institute minor fiber release episode work procedures, including having a licensed company perform area air testing.

26) A competent person (certified supervisor) shall supervise all work performed within regulated areas. Site inspections of the regulated area shall be made.

27) The employer shall ensure that employees do not eat, drink, smoke, chew tobacco or gum or apply cosmetics in the regulated area.

Asbestos Pipe & Fitting Insulation Work (continued):

28) Conduct personal OSHA air monitoring including an 8 hour TWA sample and 30 minute worse-case sample on a worker performing each task.

Asbestos Tank, Duct, Boiler, Wall, or Work On & Above Suspended Ceiling:

* **Class I minor removal operations**
* **Class II operations**
* **Class III repair and maintenance operations**

The following procedures shall be followed when removing or repairing tank, duct, boiler insulation, wall material or working above a suspended ceiling:

1) Provide notice to faculty, students and staff generally 10 days prior to project commencement

2) All project areas shall be vacated by the occupants prior to work area preparation and until full abatement has been achieved.

3) Isolate (demarcate) the project area by cordoning it off with barrier tape or line and make the area accessible through only one entrance / exit

4) Caution signs shall be posted to demarcate the regulated area at any location and approaches to a location wherever airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted that permit a person to read the sign and take the necessary protective measures to avoid exposure

5) Restrict entry into the area where the work will take place using trained and certified personnel (authorized persons)

6) Shut off or temporarily modify the air handling system

7) Use personal protective equipment including disposable clothing and a HEPA dual cartridge air purifying respirator

8) Provide worker decontamination facilities which may be adjacent or remote to the restricted work area. If remote, the employer must establish an equipment room or area that is adjacent to the regulated area for the decontamination of employees and their equipment which is contaminated with asbestos which shall consist of an area covered by a impermeable drop cloth on the floor. The area must be of sufficient size as to accommodate cleaning of equipment and removing personal protective equipment without spreading contamination beyond the area (as determined by visible accumulation). The disposable suit shall be cleaned with a HEPA vacuum before it is removed. Donning a new suit and still wearing the respirator, proceed to off-site shower

Asbestos Tank, Duct, Boiler, Wall, or Work On & Above Suspended Ceiling (continued):

9) Tent operations shall be performed using constructed or commercially available plastic tents. The tent shall be of at least 6 mil fire-retardant plastic sheeting with double-folded seams. Seams shall be taped airtight and then taped flush with the adjacent tent wall.

10) Authorized visitors entering the tent shall first don personal protective equipment

11) A HEPA vacuum shall be used to continuously exhaust the tent

12) Impermeable drop-cloths shall be placed on surfaces beneath all removal activity

13) All objects within the regulated area shall be covered with plastic sheeting which is secured by duct tape

14) All material shall be removed and sealed in plastic bags prior to removal from the tent. Edges of asbestos material remaining shall be encapsulated or sealed with wet cloth

15) The entire project area and the plastic tent shall be wet cleaned. The HEPA vacuum shall be operated for a minimum of 20 minutes following completion of the wet cleaning

16) The substrate from which the asbestos was removed and any exposed edges shall be sealed with encapsulant

17) The person's disposable protective clothing (not respirator) shall be removed and left in the tent upon exiting

18) After exiting the tent, persons shall immediately don clean protective clothing. Persons shall then seal the tent exit and upon tent collapse, shut down the HEPA vacuum

19) The plastic sheeting which formed the tent and the contents thereof, shall be fully collapsed, starting from the top and working downward. The tent and contents shall be placed in at least a six-mil plastic bag or hard-wall container, sealed with duct tape and removed for disposal

20) Persons shall proceed immediately to a shower for decontamination.

21) A second HEPA vacuum shall be available for assisting with clean-up inside the tent and if working above the ceiling, for debris clean-up above a suspended ceiling

22) If at any time during the tent operation, the plastic tears, breaks or falls off, stop work, institute minor fiber release episode work procedures, including conducting having a licensed company perform area air testing.

Asbestos Tank, Duct, Boiler, Wall, or Work Above Suspended Ceiling (continued):

26) A competent person (certified supervisor) shall supervise all work performed within regulated areas. Site inspections of the regulated area shall be made.

27) The employer shall ensure that employees do not eat, drink, smoke, chew tobacco or gum or apply cosmetics in the regulated area.

28) Conduct personal OSHA air monitoring including an 8 hour TWA sample and 30 minute worse-case sample on a worker performing each task.

29) If ceiling tiles are to be removed or displaced, use proper cleaning methods to clean metal grid work holding tiles in place.

Asbestos Flooring:

*** Class II operations**

The following procedures shall be followed when removing or repairing vinyl, linoleum or asphalt flooring and underlying mastic:

1) Provide notice to faculty, students and staff generally 10 days prior to project commencement

2) All project areas shall be vacated by the occupants prior to work area preparation and until full abatement has been achieved.

3) Isolate the project area by cordoning it off with barrier tape and plastic sheeting and make the area accessible through only one entrance / exit

4) Caution signs shall be posted at any location and approaches to a location wherever airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted that permit a person to read the sign and take the necessary protective measures to avoid exposure

5) Restrict entry into the area where the work will take place using trained and certified personnel

6) Shut off or temporarily modify the air handling system

7) Use personal protective equipment including disposable clothing and a HEPA dual cartridge air purifying respirator

Asbestos Flooring (continued):

8) Provide worker decontamination facilities which may be adjacent or remote to the restricted work area. If remote, the employer must establish an equipment room or area that is adjacent to the regulated area for the decontamination of employees and their equipment which is contaminated with asbestos which shall consist of an area covered by a impermeable drop cloth on the floor. The area must be of sufficient size as to accommodate cleaning of equipment and removing personal protective equipment without spreading contamination beyond the area (as determined by visible accumulation). The disposable suit shall be cleaned with a HEPA vacuum before it is removed. Donning a new suit and still wearing the respirator, proceed to off-site shower

9) Tent operations shall be performed using constructed or commercially available plastic tents. The tent shall be of at least 6 mil fire-retardant plastic sheeting with double-folded seams. Seams shall be taped airtight and then taped flush with the adjacent tent wall.

10) Authorized visitors entering the tent shall first don personal protective equipment

11) A HEPA vacuum shall be used to continuously exhaust the tent

12) Impermeable drop-cloths shall be placed on surfaces beneath all removal activity

13) All objects within the regulated area shall be covered with plastic sheeting which is secured by duct tape

14) All material shall be removed and sealed in plastic bags prior to removal from the tent

15) The entire project area and the plastic tent shall be wet cleaned. The HEPA vacuum shall be operated for a minimum of 20 minutes following completion of the wet cleaning

16) The person's disposable protective clothing (not respirator) shall be removed and left in the tent upon exiting

17) After exiting the tent, persons shall immediately don clean protective clothing. Persons shall then seal the tent exit and upon tent collapse, shut down the HEPA vacuum

18) The plastic sheeting which formed the tent and the contents thereof, shall be fully collapsed, starting from the top and working downward. The tent and contents shall be placed in at least a six-mil plastic bag or hard-wall container, sealed with duct tape and removed for disposal.

19) Persons shall proceed immediately to a shower for decontamination

20) A second HEPA vacuum shall be available for assisting with clean-up inside the tent

Asbestos Flooring (continued):

21) If at any time during the tent operation, the plastic tears, breaks or falls off, stop work, institute minor fiber release episode work procedures, including conducting having a licensed company perform area air testing.

22) Flooring or its backing shall not be sanded

23) Resilient sheeting shall be removed by cutting with wetting of the snip point and wetting during de-lamination. Rip-up of resilient sheet floor material is prohibited.

24) All scraping of residual adhesive and / or backing shall be performed using wet methods

25) Dry sweeping is prohibited

26) Mechanical chipping is prohibited unless performed in a negative pressure enclosure

27) Tiles shall be removed intact unless the employer demonstrates that intact removal is not possible

28) If tiles are to be repaired, shellac edges and fill bare area with a floor sealant such as plaster or other suitable material.

29) A competent person (certified supervisor) shall supervise all work performed within regulated areas. Site inspections of the regulated area shall be made.

30) The employer shall ensure that employees do not eat, drink, smoke, chew tobacco or gum or apply cosmetics in the regulated area.

31) Conduct personal OSHA air monitoring including an 8 hour TWA sample and 30 minute worse-case sample on a worker performing each task.

<u>The Following Activities are Prohibited During any Asbestos Project:</u>

1) High speed abrasive disc saws that are not equipped with point of cut ventilator or enclosures with HEPA filtered exhaust air

2) Compressed air used to remove asbestos

3) Dry sweeping, shoveling or other dry clean-up of dust and debris

4) Employee rotation as a means of reducing employee exposure to asbestos

5) The breaking or sanding of tiles

6) Wet methods near live electricity

7) The use of non-trained, non-certified personnel

8) Eating, drinking, smoking, etc. in a regulated work area

9) The use of faulty equipment and personal protective equipment

10) Mechanical tools used on asbestos without attached HEPA filtered exhaust air

11) The intentional disturbance or removal of asbestos without proper controls

Record Keeping:

The following information should be secured for asbestos related issues in the management plan:

Training:

1) The trained person's name and job title

2) The date their training was completed

3) The location of the training

4) The number of hours completed in training

Periodic Surveillance:

5) The name of each person conducting the surveillance

6) The date(s) of the surveillance

7) Any changes in the condition of the materials being examined

Cleaning:

8) The name of each person performing the cleaning

9) The date of the cleaning

10) The locations cleaned

11) The methods used to perform the cleaning

Small-Scale, Short-Duration O&M Activity:

12) The name, signature and NYS certification number of each person performing the activity

13) The start and completion date of the activity

14) The locations where such activity occurred

15) A description of the activity, including preventative measures used

16) If ACBM was removed, the name and location of the disposal site of the ACM

17) The amount and type of asbestos material handled, removed, enclosed, encapsulated or disturbed

18) The name & license number of the contractor

Fiber Release Episodes:

19) The date and location of the episode

20) The method of repair, preventative measures, or response action taken

21) The name, signature, and NYS certification number of each person performing the work

22) If ACBM is removed, the name and location of the disposal site of the ACM

Response Actions and Preventative Measures:

23) A detailed written description of the measure or action including the method used

24) The location where the measure or action was taken

25) Reasons for selecting the measure or action

26) The start and completion dates of the work

27) The names, addresses, signatures, and NYS certification number of all persons involved with the work

28) If ACBM is removed, the name and location of the disposal site of the ACM

29) The amount and type of asbestos material handled, removed, enclosed, encapsulated or disturbed

30) The name & license number of the contractor

Air Sampling:

31) The name and signature of any person collecting any air sample required to be collected at the completion of

a response action

32) The locations where those samples were collected

33) The name, address, telephone number, NVLAP and ELAP numbers of the laboratory analyzing the samples

34) The name, address, and telephone number of the designated person

35) The date(s) of the analysis

36) The results of the analysis

37) The method of analysis

38) The name and signature of any person performing the analysis

39) A statement that the laboratory is NVLAP and ELAP accredited

40) A statement that the persons who collected the air samples are properly certified and the company properly licensed

Section 14 - EXECUTIVE SUMMARY:

Pipe insulation is present mainly in the basement of the building, and is in fair condition, but in the 2006B area, there are several open ends and minor damaged areas. These should all be repaired. Additional pipe insulation should be assumed to be present in the pipe chases, and plenums throughout the building. If at any time, renovation work that may impact such location is scheduled, a proper inspection of these areas should be undertaken. This material has been assigned an assessment category of 5 - ACBM with a potential for damage.

Vinyl asbestos floor tiles can be found in many areas of the facility, but are typically beneath new carpeting, and/or new floor tiles. This material is in good condition, and should be maintained in accordance with the facilities operations & maintenance program. Areas where tiles have broken corners, should be repaired with filling in the holes to make the area level and prevent future damage to the exposed edges. This material has been assigned an assessment category of 5 - ACBM with a potential for damage.

Materials on the exterior of the building are not covered under the AHERA management plan. Some of the materials on the exterior of the building which may contain asbestos include:

Window Caulking
Window Glazing Putty
Door Caulking
Cement Panels
Roofing Materials.
Water Proofing Materials

Any of these materials present on the exterior of the facility should be considered to be asbestos, until testing proves differently. Before any work takes place that may effect any of these materials, a certified asbestos inspector should be hired to sample the suspect material.

Section 15 - RECOMMENDED RESPONSE ACTIONS:

The pipe insulation throughout the facility is in good condition, and should be maintained in place in accordance with the facilities operations & maintenance program. Areas of damaged pipe insulation, and open ends should be repaired and sealled.

The floor tiles throughout the facility are in good shape, and should be maintained in accordance with the facilities operations & maintenance program.

The drawing indicates likely and known locations of asbestos containing floor tiles. If a renovation project will disturb the existing flooring, a more detailed survey should be conducted throughout the areas of planned renovation work.

Section 16 - Periodic Inspection Forms:

PERIODIC SURVEILLANCE REPORT
ASBESTOS CONTAINING BUILDING MATERIALS IN SCHOOLS

SCHOOL DISTRICT: _____

SCHOOL NAME: _____

ADDRESS: _____

DATE OF THIS SURVEILLANCE: _____

DATE OF LAST SURVEILLANCE: _____

NAME OF SURVEYOR: _____

HOMOGENEOUS AREA	FUNCTIONAL SPACE	CONDITION CHANGE (Y/N)	DESCRIBE CHANGE

NEXT SURVEILLANCE DUE DATE: _____

I, _____, have included this periodic surveillance report in the appropriate management plan(s), and will recommend implementation of the necessary preventive measures, maintenance, repair, and / or response actions required to comply with AHERA.

Designated Person:_____

Signature: _____

Date: _____

Note: First complete the Periodic Surveillance Form listed by Functional Space. Only functional spaces with an ACBM having had its condition changed since the last periodic surveillance need to be listed on this form.

Periodic Inspection Forms (Fill out one form every six months)

Name of Inspector: _____ Date of this Inspection: _____

FUNCT. SPACE	SPACE DESCR.	HOM. AREA	ACBM AMOUNT	FRIABLE AMOUNT	ASSESS. CATEG.	ACTION REMOVE	ACTION REPAIR	ACTION O&M	Periodic Inspection
2001	HA	PI	15	0	5	0	0	15	
2002	OF	PI	50	0	5	0	0	50	
2004	HA	PI	25	0	5	0	0	25	
2005	ME	PI	15	0	5	0	0	15	
2006	HA	PI	10	0	5	0	0	10	
2006B	Plenum	PI	50	0	5	0	10	50	
2009	OF	PI	80	0	5	0	0	80	
2015	Cafeteria	PI	330	0	2	0	0	330	
3001	AU	Wire	20	0	5	0	0	20	
3001A	CR	FT	60	0	5	0	0	60	
3004	Room	FT	50	0	5	0	0	50	
3010	CR	FT	500	0	5	0	0	500	
3011	CR	FT	500	0	5	0	0	500	
3012	Stairs	FT	50	0	5	0	0	50	
3113	CR	FT	500	0	5	0	0	500	
3014	CR	FT	500	0	5	0	0	500	
3016	Stairs	FT	40	0	5	0	0	40	
3018	Stairs	FT	50	0	5	0	0	50	
3019	CR	FT	600	0	5	0	0	600	
3020	CR	FT	600	0	5	0	0	600	
3021	CR	FT	600	0	5	0	0	600	

Homogeneous Areas Codes (Hom Area):
CK-caulking
CM-cementitious
CT-ceiling tiles
FT-floor tiles
GR-general roofing
LF-linoleum floor
PB-plasterboard (sheetrock)
PC-applied plaster ceiling
PF-pipe fittings
PI-pipe insulation
PW-applied plaster walls
PN-panel boards (transite)
PP-patching plaster
RF-roof flashing
SI-tanks, boilers, duct
SO-spray-on
TC-transite
TM-tar / mastic
VC-vibration cloth

Justification Codes:
AD-asbestos debris
AE-air erosion
DL-delamination
FC-flaking, crumbling
HA-highly accessible
PD-potential damage
PS-potential significant damage
VB-vibration
WD-water damage

Space Description Codes:
AT-attic
AU-auditorium
BR-boiler room
BT-bathroom
CF-conf. room
CL-closet
CR-classroom
CS-crawl space
GY-gymnasium
HA-hallway
LB-library
ME-mechanical
MP-multipurpose
OF-office
SS-slopsink
ST-storage

AHERA Assessment Categories:
1-damaged or significantly damaged TSI ACBM
2-damaged friable surfacing ACBM
3-significantly damaged friable surfacing ACBM
4-damaged or significantly damaged friable misc. ACBM
5-ACBM with potential for damage
6-ACBM with potential for significant damage
7-all other friable ACBM or friable suspect/presumed ACBM
X-non AHERA material; non ACBM and/or non-friable
O-no assessment category in original inspection report

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3024	CR	FT	600	0	5	0	0	600	
3026	Stairs	FT	120	0	5	0	0	120	
4012	CR	FT	450	0	5	0	0	450	
4016	Stairs	FT	20	0	5	0	0	20	
4017	Stairs	FT	50	0	5	0	0	50	
4021	Stairs	FT	50	0	5	0	0	50	
5001	Stairs	FT	50	0	5	0	0	50	
5010	Stairs	FT	50	0	5	0	0	50	
5014	HA	FT	190	0	5	0	0	190	
5017	Art	FT	300	0	5	0	0	300	
5017B	Closet	FT	50	0	5	0	0	50	
5020	Shaft	Gasket	4	0	5	0	0	4	
TOTALS			6579	0		0	10	6579	

Some areas of floor tiles are beneath flooring materials

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2006	HA	PI	10	0	5	0	0	10	
2006B	Plenum	PI	50	0	5	0	10	50	
2009	OF	PI	80	0	5	0	0	80	
2015	Cafeteria	PI	330	0	2	0	0	330	
3001	AU	Wire	20	0	5	0	0	20	
3001A	CR	FT	60	0	5	0	0	60	
3004	Room	FT	50	0	5	0	0	50	
3010	CR	FT	500	0	5	0	0	500	
3011	CR	FT	500	0	5	0	0	500	
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3018	Stairs	FT	50	0	5	0	0	50	
3019	CR	FT	600	0	5	0	0	600	
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2006	HA	PI	10	0	5	0	0	100	
2006B	Plenum	PI	50	0	5	0	10	50	
2009	OF	PI	80	0	5	0	0	80	
2015	Cafeteria	PI	330	0	2	0	0	330	
3001	AU	Wire	20	0	5	0	0	20	
3001A	CR	FT	60	0	5	0	0	60	
3004	Room	FT	50	0	5	0	0	50	
3010	CR	FT	500	0	5	0	0	500	
3011	CR	FT	500	0	5	0	0	500	
3012	Stairs	FT	50	0	5	0	0	50	
3113	CR	FT	500	0	5	0	0	500	
3014	CR	FT	500	0	5	0	0	500	
3016	Stairs	FT	40	0	5	0	0	40	
3018	Stairs	FT	50	0	5	0	0	50	
3019	CR	FT	600	0	5	0	0	600	
3020	CR	FT	600	0	5	0	0	600	
3021	CR	FT	600	0	5	0	0	600	

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3026	Stairs	FT	120	0	5	0	0	120	
4012	CR	FT	450	0	5	0	0	450	
4016	Stairs	FT	20	0	5	0	0	20	
4017	Stairs	FT	50	0	5	0	0	50	
4021	Stairs	FT	50	0	5	0	0	50	
5001	Stairs	FT	50	0	5	0	0	50	
5010	Stairs	FT	50	0	5	0	0	50	
5014	HA	FT	190	0	5	0	0	190	
5017	Art	FT	300	0	5	0	0	300	
5017B	Closet	FT	50	0	5	0	0	50	
5020	Shaft	Gasket	4	0	5	0	0	4	
TOTALS			6579	0		0	10	6669	

Some areas of floor tiles are beneath flooring materials

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Periodic Inspection Forms (Fill out one form every six months)

Name of Inspector: _____ Date of this Inspection: _____

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2004	HA	PI	25	0	5	0	0	25	
2005	ME	PI	15	0	5	0	0	15	
2006	HA	PI	10	0	5	0	0	10	
2006B	Plenum	PI	50	0	5	0	10	50	
2009	OF	PI	80	0	5	0	0	80	
2015	Cafeteria	PI	330	0	2	0	0	330	
3001	AU	Wire	20	0	5	0	0	20	
3001A	CR	FT	60	0	5	0	0	60	
3004	Room	FT	50	0	5	0	0	50	
3010	CR	FT	500	0	5	0	0	500	
3011	CR	FT	500	0	5	0	0	500	
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3016	Stairs	FT	40	0	5	0	0	40	
3018	Stairs	FT	50	0	5	0	0	50	
3019	CR	FT	600	0	5	0	0	600	
3020	CR	FT	600	0	5	0	0	600	
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5001	Stairs	FT	50	0	5	0	0	50	
5010	Stairs	FT	50	0	5	0	0	50	
5014	HA	FT	190	0	5	0	0	190	
5017	Art	FT	300	0	5	0	0	300	
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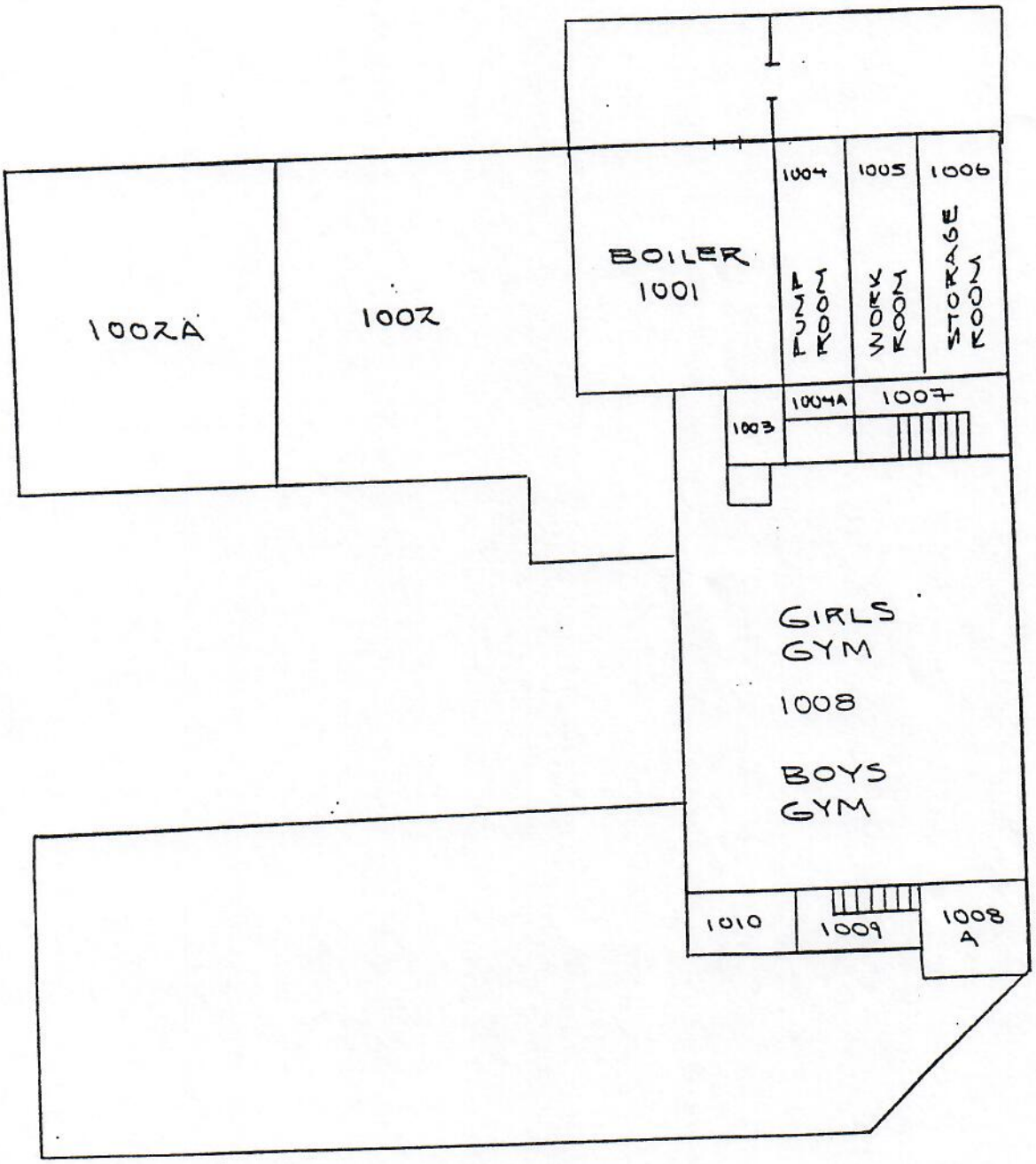
Section 17 - Bulk Sample Reports:

No bulk samples were collected as part of this inspection.

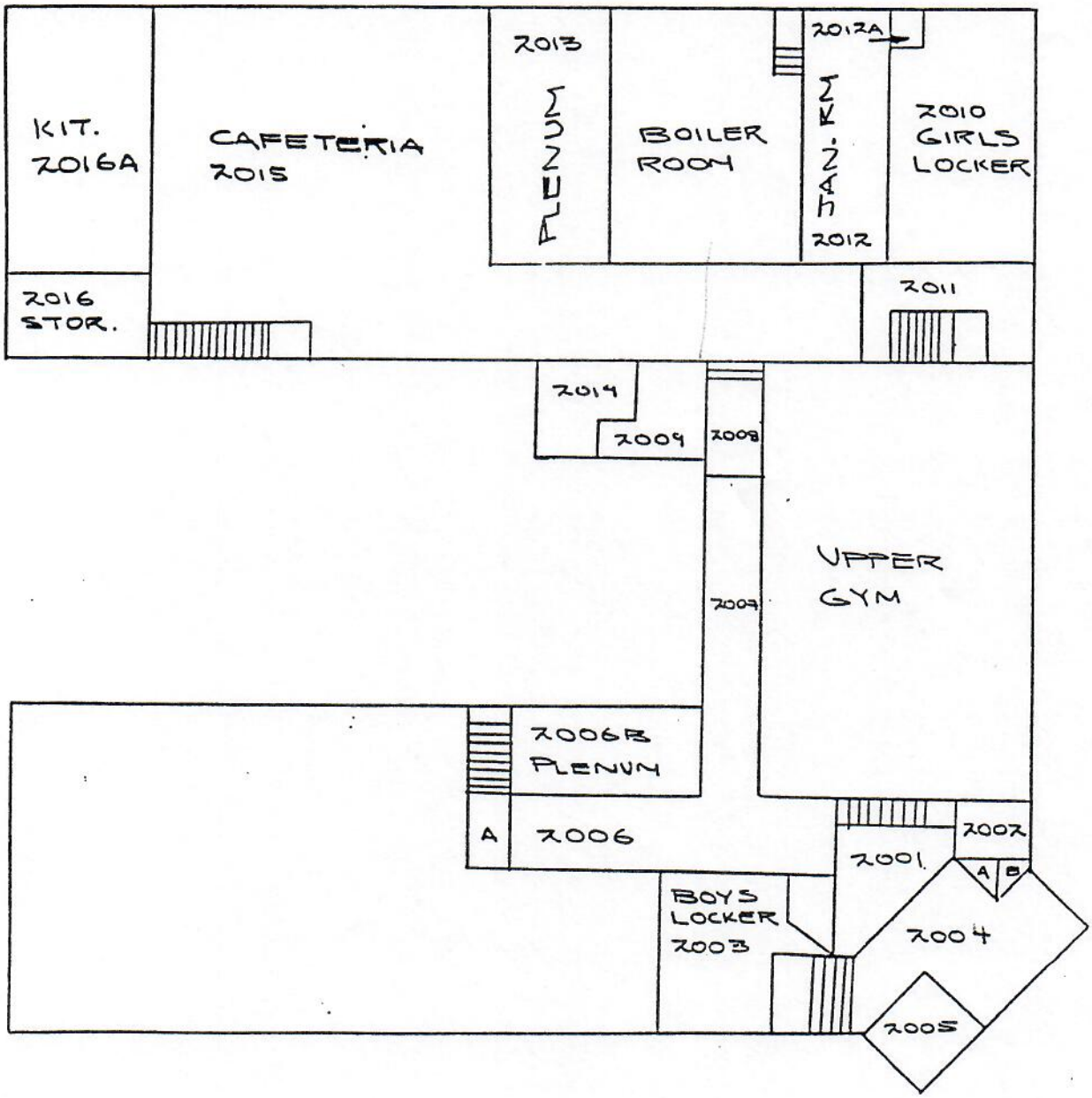
Section 18 - Floor plans:



W.L. MORSE ELEMENTARY SCHOOL

SUB-BASEMENT

NOT TO SCALE



W.L. MORSE ELEMENTARY SCHOOL

BASEMENT

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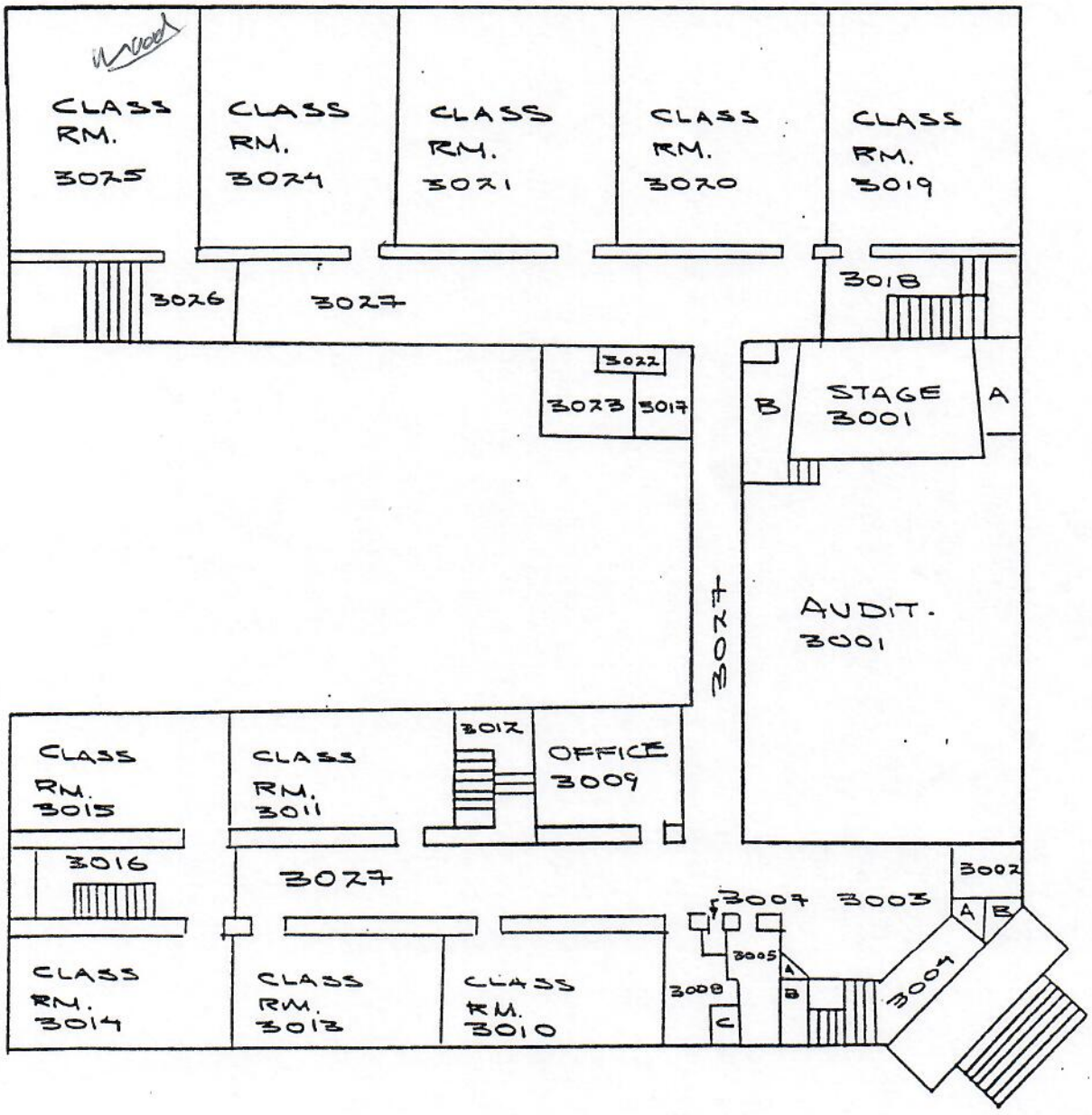
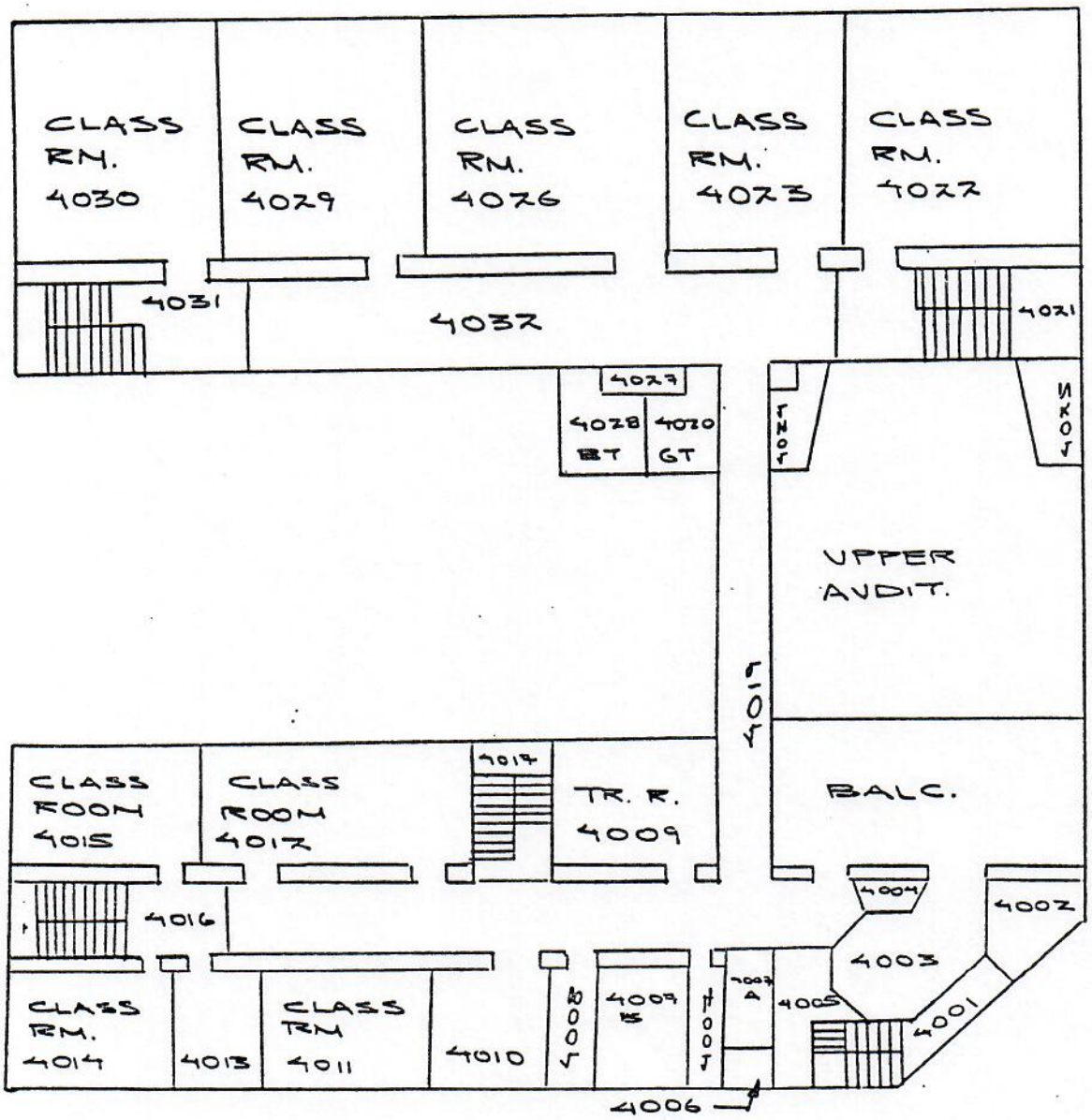


W.L. MORSE ELEMENTARY SCHOOL

FIRST FLOOR

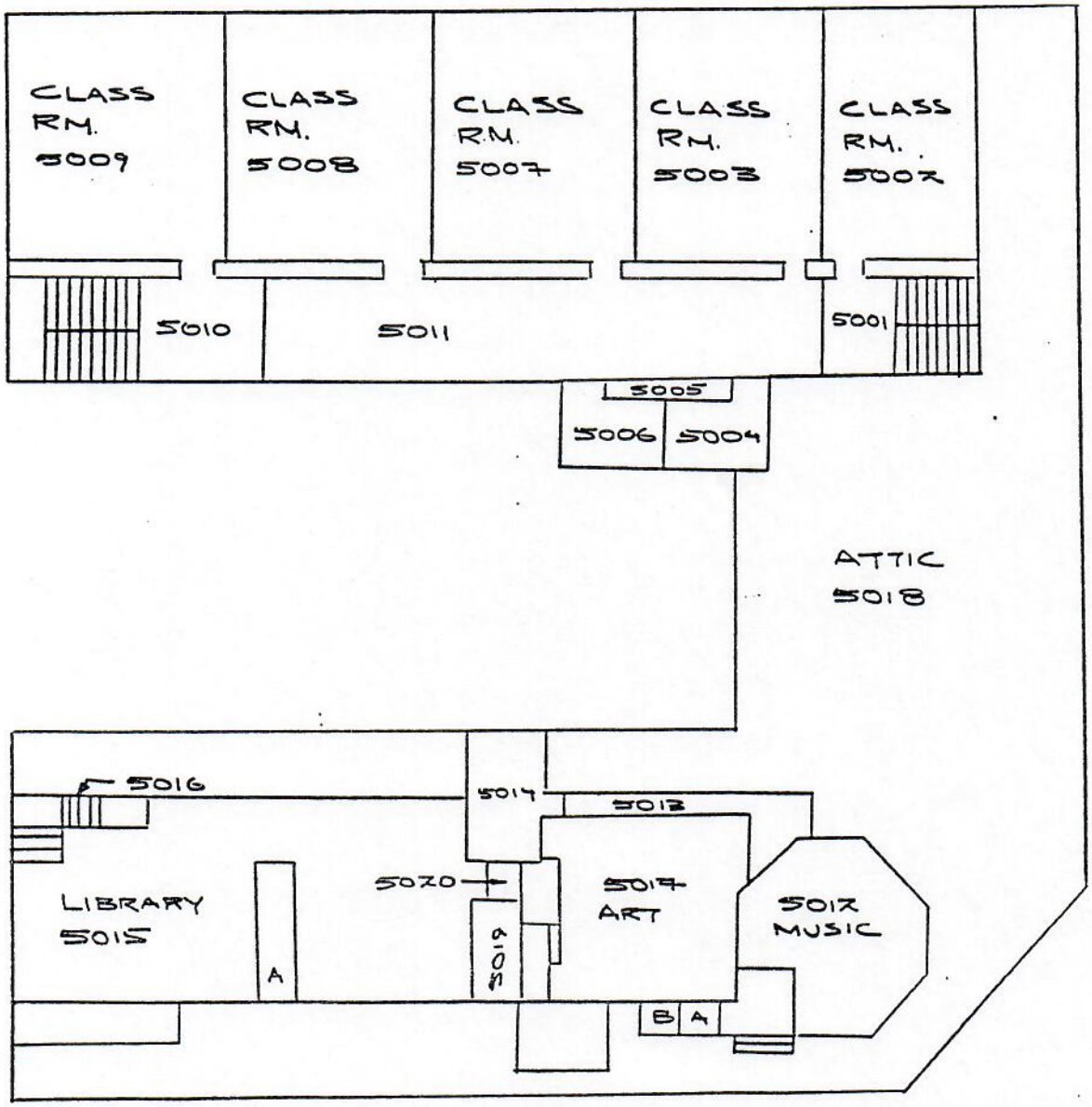
NOT TO SCALE



W.L. MORSE ELEMENTARY SCHOOL

SECOND FLOOR

NOT TO SCALE



W.L. MORSE ELEMENTARY SCHOOL

THIRD FLOOR

NOT TO SCALE

Section 19 - Copies of Public Notices:

Section 20 - Copies of Inspector & Management Planner Certificates:

LITHO IN U.S.A.
© GOES 3910

QuES&T

Quality Environmental Solutions & Technologies, Inc.
1376 Route 9, Wappingers Falls, NY 12590
Phone (845) 298-6031 Fax (845) 298-6251

HEREBY CERTIFIES THAT

VERNON C. ROHDE II

HAS SUCCESSFULLY COMPLETED A TRAINING SEMINAR IN:

NYS/EPA MANAGEMENT PLANNER REFRESHER

MEETING THE REQUIREMENTS OF NYSDOH 10 NYCRR, PART 73 AND TSCA TITLE II AND HAS BEEN AWARDED THIS CERTIFICATE BY:

Paul A. Rodriguez

PAUL A. RODRIGUEZ
TRAINING DIRECTOR

NOTE: Official record of successful completion is DOH 2832 Certificate of Completion of Asbestos Safety Training

NOTE: DOH 2832 - A $20 fee shall be charged for replacement of Certificate of Completion DOH 2832

ON THIS DATE: 9/6/18

CERTIFICATE NUMBER: 816226

EXPIRATION DATE: 9/6/2019

LITHO IN U.S.A.
© GOES 3910

QuES&T

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ON THIS DATE: 9/6/2018

CERTIFICATE NUMBER: 816229

EXPIRATION DATE: 9/6/2019

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

VERNON C ROHDE II
CLASS(EXPIRES)
C ATEC(10/19) D INSP(10/19)
E MGPL(10/19) H PM (10/19)
I PD (10/19)

CERT# 89-01729
DMV# 302032580

MUST BE CARRIED ON ASBESTOS PROJECTS

NYC DEP ASBESTOS CONTROL PROGRAM
ASBESTOS CERTIFICATE

ROHDE II,
VERNON C
INVESTIGATOR
116391

EXPIRES: 10/25/2019
DOB:10/25/1964 M 5' 10"

MUST BE CARRIED ON ALL ASBESTOS PROJECTS

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

S & B Environmental, LLC

7 Fairchild Road

Newtown, CT 06470

FILE NUMBER: 99-0324
LICENSE NUMBER: 28539
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 08/31/2018
EXPIRATION DATE: 08/31/2019

Duly Authorized Representative – Vernon C Rohde II:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

ASBESTOS ABATEMENT NOTES

PRE-ABATEMENT WORK NOTES:

1. THESE DRAWINGS HAVE BEEN PREPARED UTILIZIMG THE OWNERS' ORIGINAL CONSTRUCTION DOCUMENTS IN ORDER TO ILLUSTRATE THE EXISTING CONDITIONS OF THE SITE AND STRUCTURES THEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL VERIFICATION OF ALL EXISTING CONDITIONS IN THE FIELD.

2. THE CONTRACTOR SHALL DETERMINE EXACT FINAL LOCATIONS OF PERSONNEL AND WASTE DECONTAMINATION ENCLOSURES, PICK UP AREA FOR REFUSE AND ASBESTOS DEBRIS. THESE LOCATIONS SHALL BE REVIEWED AND PROPERLY APPROVED BY THE OWNER PRIOR TO COMMENCEMENT OF WORK. THIS CONTRACTOR SHALL ESTABLISH, LABEL AND MAINTAIN PROPER EXITS AND WAYS OF EGRESS WITHIN EACH WORK AREA FOR NORMAL AND EMERGENCY USE BY WORKERS DURING ALL ABATEMENT ACTIVITIES.

3. THE CONTRACTOR, PRIOR TO BIDDING SHALL BE RESPONSIBLE TO BECOME COMPLETELY FAMILIAR WITH ALL ASPECTS OF THE PROJECT, INCLUDING, BUT NOT LIMITED TO, ALL DEMOLITION AND CONSTRUCTION WORK AS SHOWN IN THE COMPLETE SET OF DRAWINGS AND IN THE PROJECT MANUAL / SPECIFICATIONS AND ASBESTOS SURVEY REPORTS IN ORDER THAT THE FULL SCOPE OF WORK WHICH MAY ENCOUNTER ASBESTOS CONTAINING MATERIALS IS UNDERSTOOD AND ACCOUNTED FOR BY THE CONTRACTOR IN UNDERTAKING THIS PROJECT. A COPY OF THE ASBESTOS SURVEY REPORT CAN BE REQUESTED FROM THE OWNERS' ENVIRONMENTAL CONSULTANT AND WILL BE AVAILABLE AT THE PRE-BID MEETING. ADDITIONAL REPORT REQUESTS MUST BE SUBMITTED IN WRITING SEVEN CALENDAR DAYS IN ADVANCE OF THE BID OPENING.

4. PRIOR TO ABATEMENT ALL CONTRACTORS WILL SURVEY EXISTING CONDITIONS IN THE ABATEMENT AND GENERAL WORK AREAS. ITEMS / MATERIALS, ETC., DAMAGED OR NON-FUNCTIONAL SHALL BE LISTED, NOTED, PHOTOGRAPHED AND REVIEWED WITH THE PROJECT INSPECTOR. ALL OTHER ITEMS / MATERIALS SHALL BE REVIEWED WITH THE PROJECT INSPECTOR. ALL OTHER ITEMS / MATERIALS SHALL BE ASSUMED TO BE IN GOOD CONDITION AND WORKING ORDER. IT SHALL BE THE RESPONSIBILITY OF THE ABATEMENT CONTRACTOR TO MAINTAIN ALL MATERIALS, ITEMS, EQUIPMENT, SYSTEMS, ETC. IN THEIR ORIGINAL CONDITION AND RETURN TO OWNER/GENERAL CONTRACTOR, ETC., IN SAME CONDITION AT THE END OF THIS CONTRACT.

ASBESTOS REMOVAL GENERAL NOTES:

1. ASBESTOS ABATEMENT INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY A NYS DEPARTMENT OF LABOR LICENSED ASBESTOS ABATEMENT CONTRACTOR, WHO SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND QUANTITIES PRIOR TO BID.

2. THE CONTRACTOR SHALL PERFORM ALL CONTRACT WORK IN ACCORDANCE WITH CONTRACT SPECIFICATIONS, NEW YORK STATE DEPARTMENT OF LABOR (NYSDOL) INDUSTRIAL HEALTH CODE RULE 56, OSHA, NESHAPS, AHERA, NYSDEC AND ALL OTHER APPLICABLE CODES.

3. THE CONTRACTOR SHALL MAINTAIN THE SITE AS NEAT AS POSSIBLE AND ORDERLY DURING (THE COURSE OF)THE WORK. ALL LOOSE DEBRIS WHICH MAY (BECOME WINDBORNE) BLOW OFF THE SITE, SHALL BE COLLECTED AND DISPOSED OF PROPERLY BY THE CONTRACTOR ON A DAILY BASIS AS PART OF THE PROJECT WORK.

4. THE CONTRACTOR SHALL PROVIDE BARRIERS AROUND THE WORK AREAS IN ORDER TO ENSURE SAFE PASSAGE BY ANY PERSON. THESE BARRIERS SHALL ALSO SERVE TO KEEP ALL UNAUTHORIZED PERSONS OUT OF THE PROJECT AREA FOR THE DURATION OF THE WORK.

5. VARIANCES: CONTRACTOR SHALL PAY FOR AND OBTAIN ANY NECESSARY SITE SPECIFIC VARIANCES.

6. THE CONTRACTOR SHALL MAINTAIN SECURITY IN THE BUILDING AND THE WORK AREAS AT ALL TIMES.

7. PROJECT STAGING, STORAGE, SCHEDULING AND ACCESS SHALL BE COORDINATED WITH AND APPROVED BY THE ARCHITECT, CONSTRUCTION MANAGER AND OWNER PRIOR TO PROCEEDING WITH WORK.

8. SHOULD IT BECOME NECESSARY, THE CONTRACTOR SHALL COORDINATE SHUT DOWN AND LOCK OUT / TAG OUT OF THE ELECTRICAL POWER FROM THE OWNERS' POWER, WITH OWNERS' REPRESENTATIVE, PRIOR TO THE COMMENCEMENT OF WORK.

9. ALL TEMPORARY POWER TO THE WORK AREA SHALL BE BROUGHT IN FROM OUTSIDE THE WORK AREA BY ABATEMENT CONTRACTOR / GC THROUGH A GROUND-FAULT CIRCUIT INTERRUPTER AT THE SOURCE.

10. CONTRACTOR SHALL COORDINATE CONNECTION OF WATER SERVICE FOR DECONTAMINATION PURPOSES WITH OWNERS' REPRESENTATIVE. WATER FOR DECONTAMINATION UNITS IS AVAILABLE FROM THE OWNER.

11. THE OWNER OR OWNERS' REPRESENTATIVE IS RESPONSIBLE TO CONTRACT FOR NYSDOL PROJECTS MONITORING / AIR SAMPLING TECHNICIAN SERVICES AS REQUIRED.

12. CONTRACTOR TO PROVIDE A COPY OF SAFETY DATA SHEETS (SDS'S) FOR ANY CHEMICAL AGENTS TO BE USED DURING THE ASBESTOS ABATEMENT TO THE PROJECT MONITOR AND THE OWNERS'S REPRESENTATIVE.

13. CONTRACTOR SHALL REQUEST AND RECEIVE PROJECT MONITOR AND OWNERS' REPRESENTATIVES APPROVAL OF ALL WORK BEFORE ANY ABATEMENT IS UNDERTAKEN.

14. UNDER NO CIRCUMSTANCES SHALL CONTAMINATED WASTE WATER BE DISCHARGED THROUGH A SYSTEM WITHOUT FILTERING. THE MAXIMUM FILTER SIZE OPENING SHALL BE CAPABLE OF RETAINING A 5.0 MICRON PARTICLE SIZE COLLECTION CAPABILITY.

15. DRAWINGS ATTEMPT TO INDICATE THE GENERAL SCOPE OF EXISTING CONDITIONS AND ITEMS AFFECTED BY THE ABATEMENT WORK. CONTRACTOR SHALL EXAMINE THE WORK AREA PRIOR TO FORMULATING HIS BID SHALL INCLUDE FIELD VARIATIONS FROM THOSE SHOWN WITHIN THE GENERAL INTENT OF THE WORK.

16. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ASBESTOS CONTAINING MATERIALS CONTAINED WITHIN AND GENERATED FROM THE ABATEMENT PROJECT AND ASSOCIATED WITH ALL PROJECT WORK, IN COMPLIANCE WITH ALL APPLICABLE LAWS, RULES REGULATIONS AND ALL REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION.

17. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ASBESTOS CONTAINING MATERIALS CONTAINED WITHIN AND GENERATED FROM THE PROJECT AND ASSOCIATED WITH ALL PROJECT WORK, IN THE MOST EFFICIENT AND COST EFFECTIVE METHOD POSSIBLE, WHICH ALSO COMPLIES WITH THE REQUIREMENTS LISTED ABOVE.

POST ABATEMENT WORK NOTES:

1. PROVIDE ALL APPLICABLE CODE RULE 56 PROCEDURES, CLEAN UP AND ADDITIONAL TESTING AS REQUIRED.

2. AFTER FINAL CLEARANCE HAS BEEN ATTAINED, THE ABATEMENT CONTRACTOR, TOGETHER WITH THE PROJECT INSPECTOR AND OWNERS REPRESENTATIVE WILL SURVEY FINAL CONDITIONS IN THE ABATEMENT AND GENERAL WORK AREAS. ITEMS / MATERIALS, ETC., DAMAGED OR NON-FUNCTIONAL SHALL BE LISTED, NOTED, PHOTOGRAPHED AND REVIEWED WITH THE PROJECT INSPECTOR. ALL OTHER ITEMS / MATERIALS SHALL BE REVIEWED WITH THE PROJECT INSPECTOR. ALL OTHER ITEMS / MATERIALS NOT NOTED, SHALL BE ASSUMED TO BE IN GOOD CONDITION AND WORKING ORDER. IT SHALL BE THE RESPONSIBILITY OF THE ABATEMENT CONTRACTOR TO MAINTAIN ALL MATERIALS, ITEMS, EQUIPMENT, SYSTEMS, ETC. IN THEIR ORIGINAL CONDITION AND RETURN TO OWNER/GENERAL CONTRACTOR, ETC., IN SAME CONDITION AT THE END OF THIS CONTRACT. ANY NEW DAMAGE OR MISSING EQUIPMENT SHALL BE NOTED AND THE COST OFFSET FROM THE CONTRACT.

3. REMOVE ALL TEMPORARY ENCLOSURES, BARRIERS, ETC. REINSTALL ITEMS/WORK PREVIOUSLY REMOVED. ALL TAPE AND ADHESIVE RESIDUALS TO BE REMOVED.

4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE AGAINST DAMAGE TO THE EXISTING WORK TO REMAIN IN PLACE. ANY DAMAGE TO SUCH WORK SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ARCHITECT AND OWNER AT NO ADDITIONAL COST TO THE CONTRACT.

5. AT COMPLETION OF THE ABATEMENT WORK, A CONDITION SURVEY SHALL BE DONE BY ALL CONTRACTORS AND PROJECT INSPECTOR (SEE NOTE 2.) ANY VARIATION (I.E. DAMAGE BY THE CONTRACTOR) SHALL BE REPAIRED / RESTORED BY THE ABATEMENT CONTRACTOR.

6. THE CONTRACTOR SHALL, UPON COMPLETION OF THE REMOVAL, PROVIDE WRITTEN DOCUMENTATION (INCLUDING ALL APPROPRIATE THIRD PARTY TESTING RESULTS) THAT THE PROJECT WORK AREAS ARE COMPLETELY FREE OF ALL ASBESTOS CONTAINING MATERIALS (CONTEMPLATED FOR REMOVAL UNDER THIS PROJECT, OR PHASE) AT FINAL CLEARANCE.

7. THE CONTRACTOR SHALL PROVIDE RECORDS OF ALL ASBESTOS CONTAINING MATERIALS REMOVED FROM THE SITE, INCLUDING THE COMPOSITION AND VOLUMES OF DISPOSED MATERIALS AND THE FINAL DISPOSAL SITE(S).

PUBLIC SCHOOLS OF THE TARRYTOWNS

2024 CAPITAL BOND PROJECT - PHASE 1

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STATE OF NEW YORK · ARTHUR MICHAEL MEMASI · 037037 · LICENSED PROFESSIONAL ENGINEER

Expiration Date: 11-30-2025

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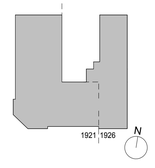

PROJECT NO.	66-04-01-03-0-006-017
MEMASI PROJECT NO.	101-2401

ASBESTOS ABATEMENT NOTES

AA000

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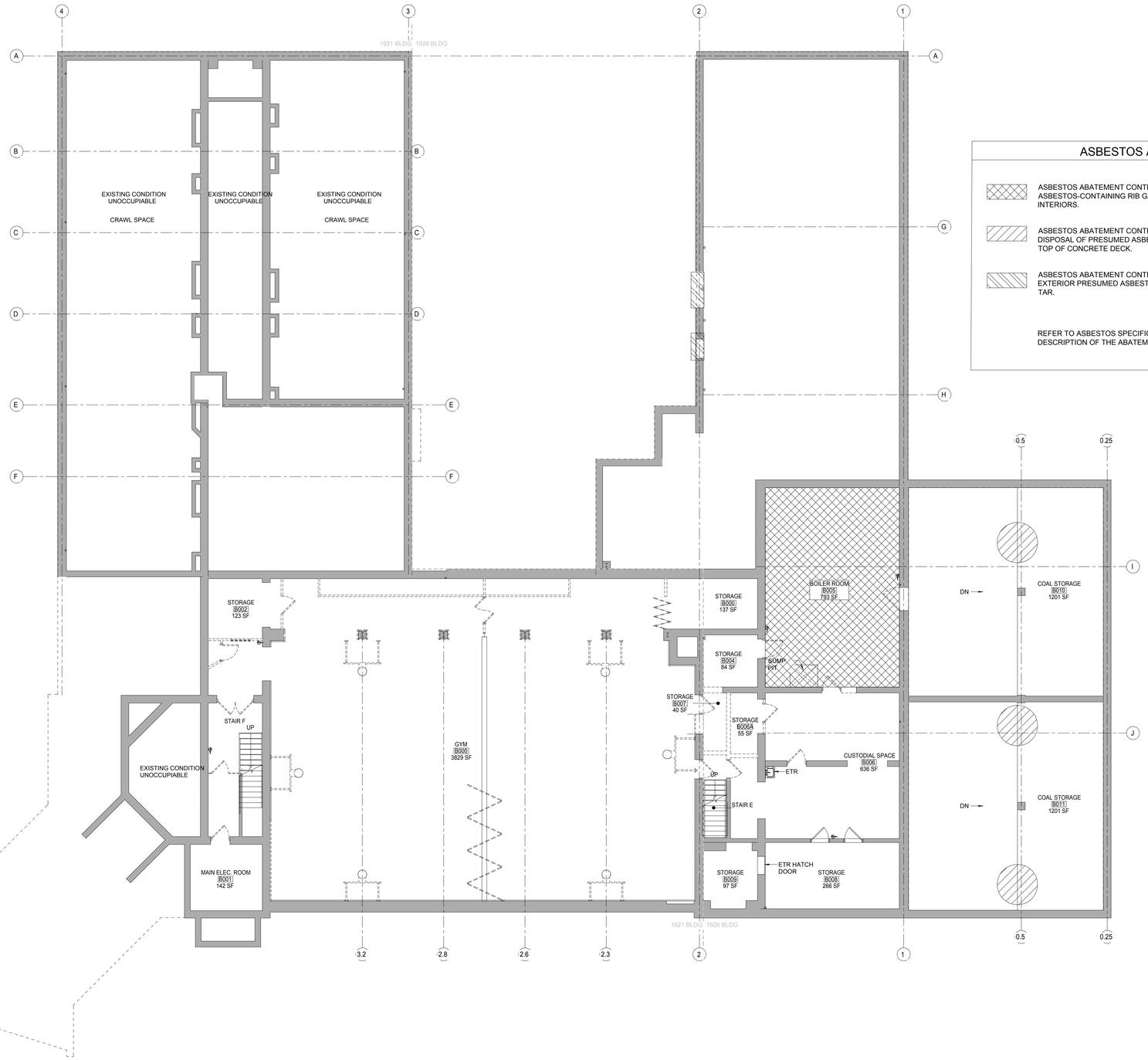

ASBESTOS ABATEMENT LEGEND

ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING RIB GASKETS AND PRESUMED ASBESTOS CONTAINING BOILER INTERIORS.

ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR SPOT REMOVAL AND DISPOSAL OF PRESUMED ASBESTOS CONTAINING (PACM) WATERPROOFING TAR ON TOP OF CONCRETE DECK.

ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF EXTERIOR PRESUMED ASBESTOS CONTAINING (PACM) FOUNDATION WATERPROOFING TAR.

REFER TO ASBESTOS SPECIFICATION SECTION 020800 - SECTION 3.17 FOR A DETAILED DESCRIPTION OF THE ABATEMENT WORK.

SUB-BASEMENT ASBESTOS ABATEMENT PLAN
NTS
1 AA100

PUBLIC SCHOOLS OF THE TARRYTOWNS

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LICENSED PROFESSIONAL ENGINEER
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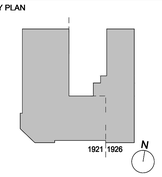

PROJECT NO. 66-04-01-03-0-006-017
MEMASI PROJECT NO. 101-2401

SUB-BASEMENT ASBESTOS ABATEMENT PLAN -

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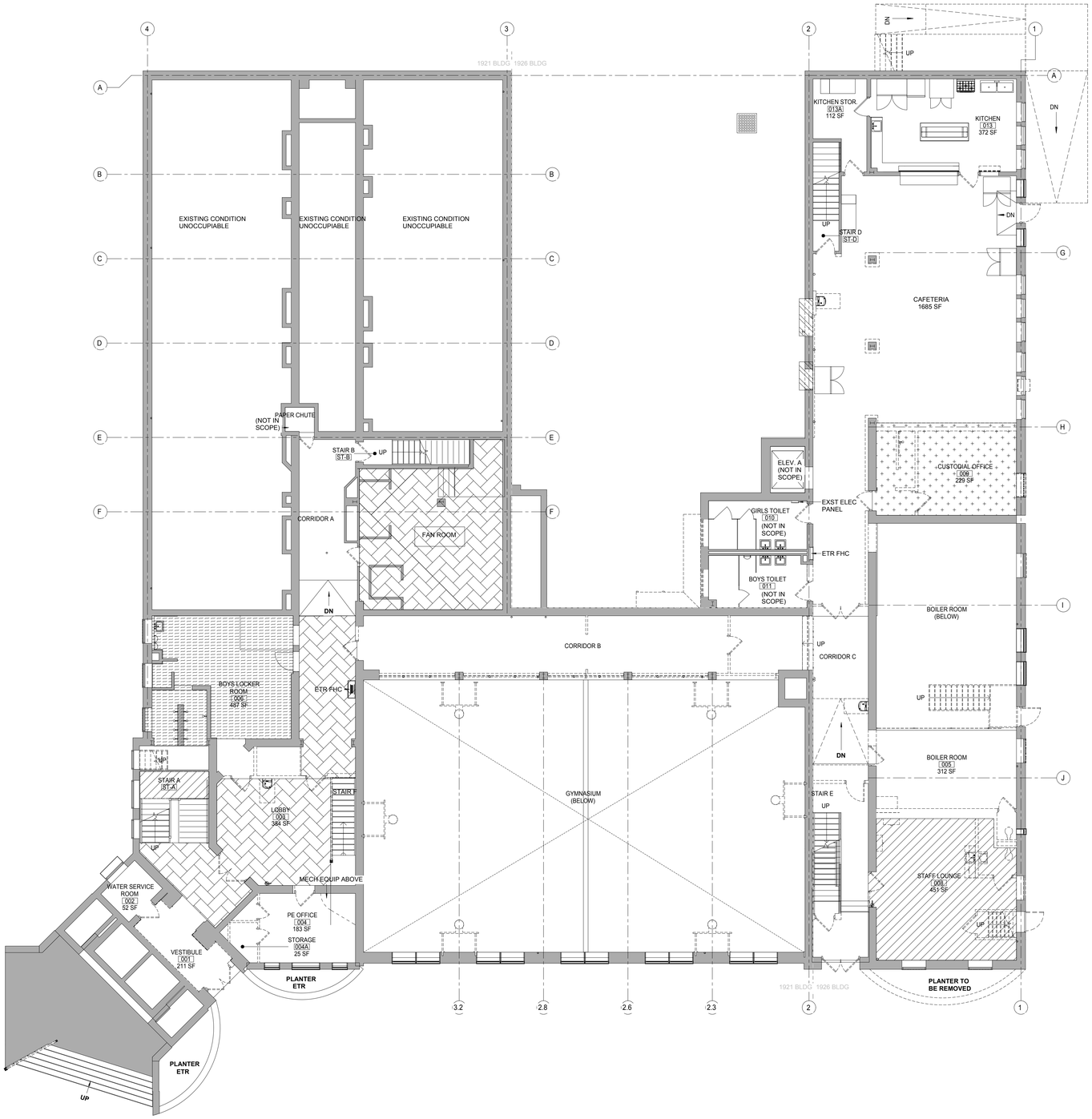

BASEMENT ASBESTOS ABATEMENT PLAN

NTS

1 / AA101

ASBESTOS ABATEMENT LEGEND

ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING FLOOR TILE AND MASTIC.

ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING (ACM) PIPE INSULATION MUDDED JOINT PACKING MATERIALS AND/OR ASSOCIATED DEBRIS .

ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF PRESUMED ASBESTOS CONTAINING (PACM) SUB SLAB VAPOR BARRIER.

ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING CERAMIC WALL TILE GROUT AND ADHESIVE AND PRESUMED ASBESTOS CONTAINING PIPE INSULATION (PACM) AND MUDDED JOINT PACKING WITHIN LOCKER ROOM WET WALLS.

ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF EXTERIOR PRESUMED ASBESTOS CONTAINING (PACM) FOUNDATION WATERPROOFING TAR.

REFER TO ASBESTOS SPECIFICATION SECTION 020800 - SECTION 3.17 FOR A DETAILED DESCRIPTION OF THE ABATEMENT WORK.

PUBLIC SCHOOLS OF THE TARRYTOWNS

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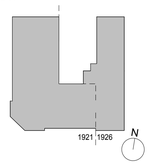

PROJECT NO.	66-04-01-03-0-006-017
MEMASI PROJECT NO.	101-2401

BASEMENT ASBESTOS ABATEMENT PLAN -

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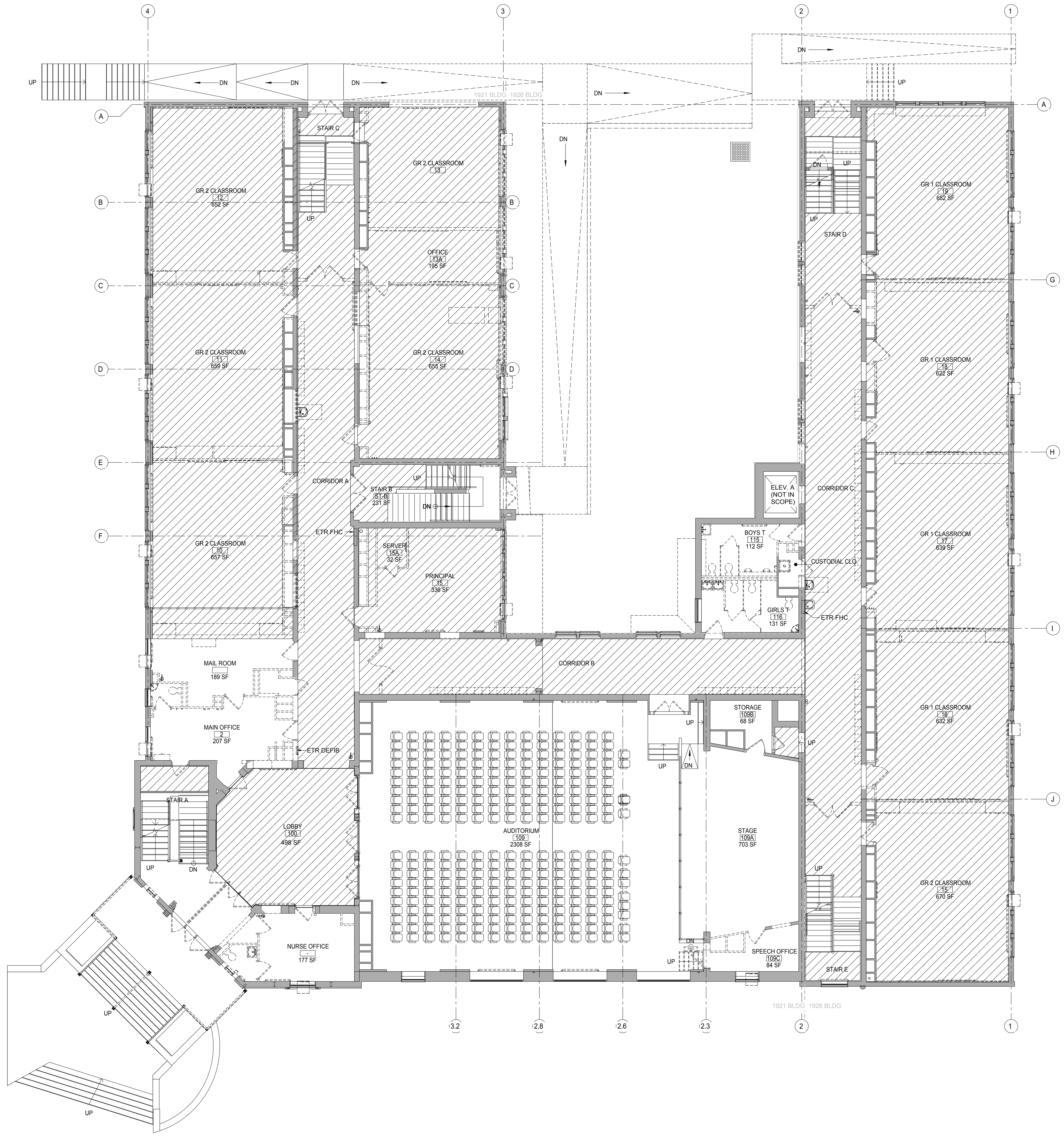

ASBESTOS ABATEMENT LEGEND

▨	ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING FLOOR TILE AND MASTIC.
⊠	ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR PROBING AND REMOVAL AND DISPOSAL OF PRESUMED ASBESTOS CONTAINING (PACM) PIPE INSULATION MUDDED JOINT PACKING MATERIALS LOCATED WITHIN FAN ROOM.

REFER TO ASBESTOS SPECIFICATION SECTION 020800 - SECTION 3.17 FOR A DETAILED DESCRIPTION OF THE ABATEMENT WORK.

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PROJECT NO.	66-04-01-03-0-006-017
MEMASI PROJECT NO.	101-2401

FIRST FLOOR ASBESTOS ABATEMENT PLAN -

AA102

FIRST FLOOR ASBESTOS ABATEMENT PLAN
NTS
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AA102

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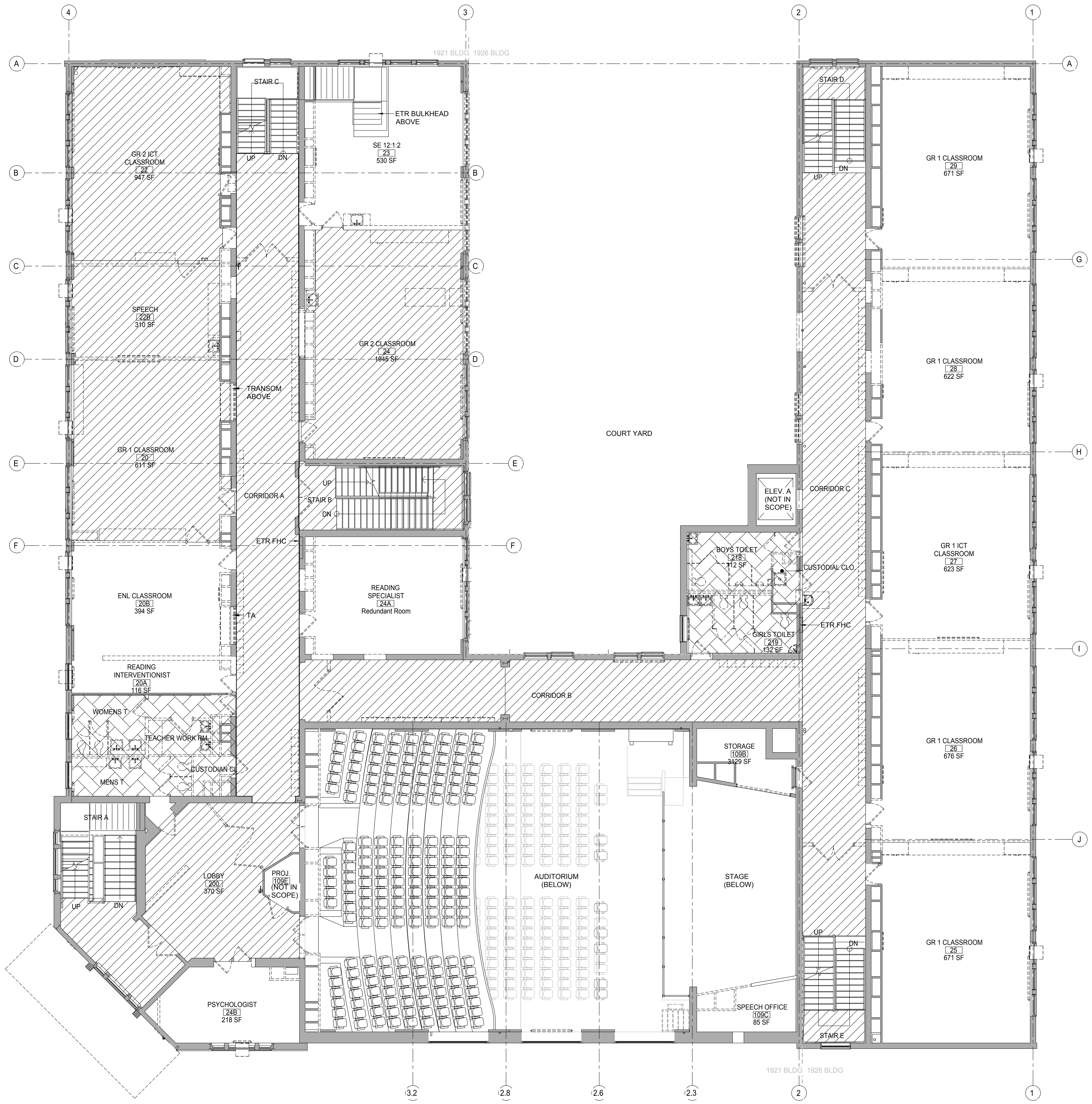

SECOND FLOOR ASBESTOS ABATEMENT PLAN 1/AA103

ASBESTOS ABATEMENT LEGEND

(hatch)	ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING FLOOR TILE AND MASTIC.
(crosshatch)	ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR PROBING AND REMOVAL AND DISPOSAL OF PRESUMED ASBESTOS CONTAINING (PACM) PIPE INSULATION MUDDED JOINT PACKING LOCATED WITHIN BATH ROOMS.

REFER TO ASBESTOS SPECIFICATION SECTION 020800 - SECTION 3.17 FOR A DETAILED DESCRIPTION OF THE ABATEMENT WORK.

PUBLIC SCHOOLS OF THE TARRYTOWNS

2024 CAPITAL BOND PROJECT - PHASE 1

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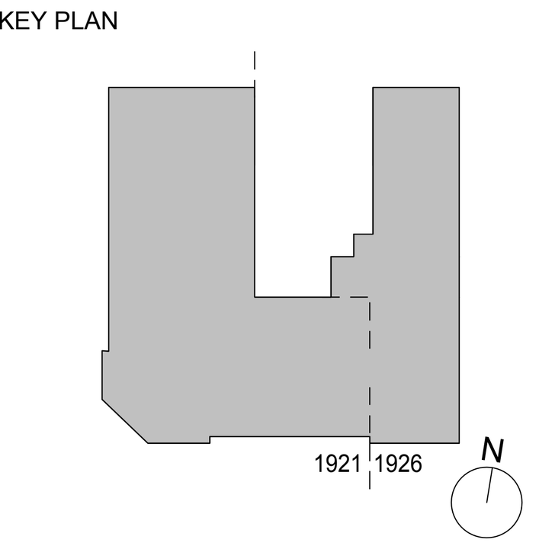

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SECOND FLOOR ASBESTOS ABATEMENT PLAN -

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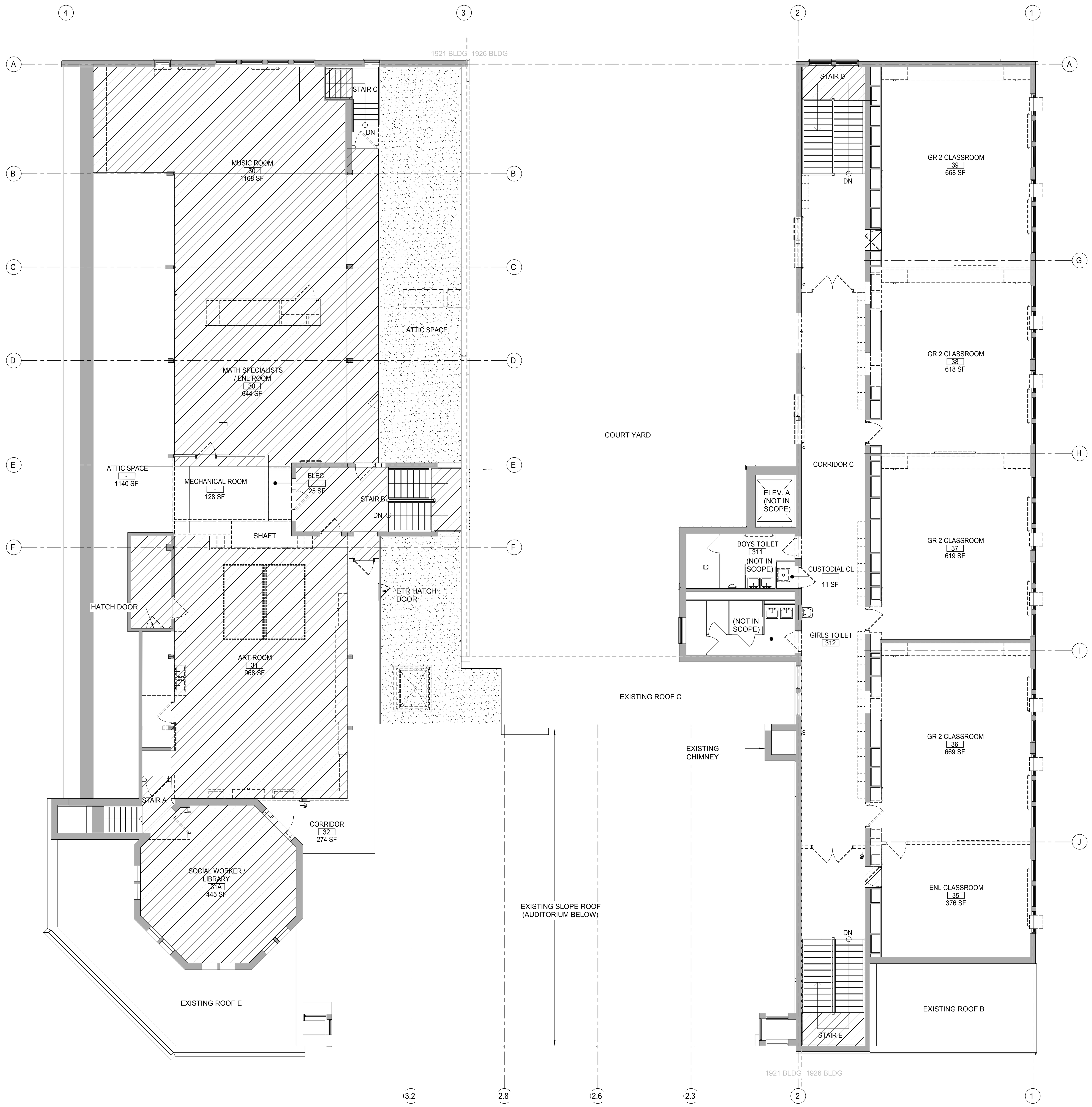

THIRD FLOOR ASBESTOS ABATEMENT PLAN
3/32" = 1'-0"
1
AA104

ASBESTOS ABATEMENT LEGEND

[hatch]	ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING FLOOR TILE AND MASTIC.
[cross-hatch]	ASBESTOS ABATEMENT CONTRACTOR RESPONSIBLE FOR PROBING AND REMOVAL AND DISPOSAL OF PRESUMED ASBESTOS CONTAINING (PACM) PIPE INSULATION MUDDED JOINT PACKING MATERIALS LOCATED WITHIN FAN ROOM. REFER TO ASBESTOS SPECIFICATION SECTION 020800 - SECTION 3.17 FOR A DETAILED DESCRIPTION OF THE ABATEMENT WORK.
[stipple]	REMEDIATION CONTRACTOR RESPONSIBLE FOR REMOVAL AND DISPOSAL OF BIRD, BAT AND RODENT DROPPINGS. REFER TO REMEDIATION WORK PLAN FOR A DETAILED DESCRIPTION OF THIS WORK

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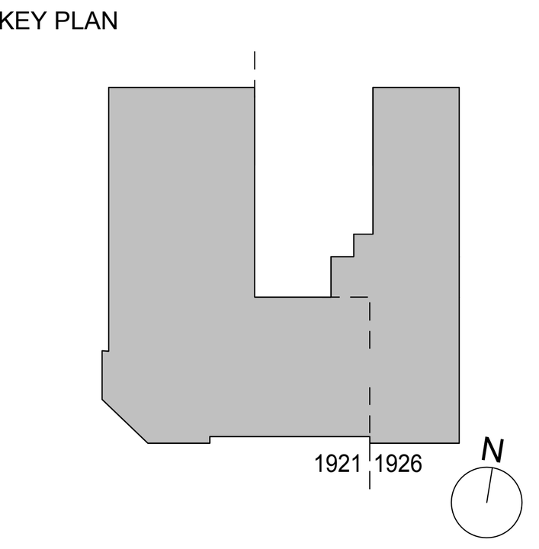

PROJECT NO.	66-04-01-03-0-006-017
MEMASI PROJECT NO.	101-2401

THIRD FLOOR ASBESTOS ABATEMENT PLAN

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Section 020800 – ASBESTOS ABATEMENT; DELETE existing Section 020800 in its entirety, and **REPLACE** with new Section 020800, attached.

SECTION 020800 - ASBESTOS ABATEMENT PROCEDURES

PART I – GENERAL

1.01 DESCRIPTION

A. All work under this contract shall be performed in strict accordance with the specifications and all applicable laws for asbestos removal projects. The Abatement Contractor shall furnish all labor, materials, supervision, services, insurance and equipment necessary for the complete and total removal of Asbestos-containing Materials (ACM) as described herein, in attachments to the specification, Job Specific Variance(s) and/or as directed by Ossining UFSD (here-in-after the "Owner") and/or the Owners Representative(s) to support the ***Public Schools of the Tarrytowns – 2024 Capital Bond Project - Phase 1.***

B. Abatement Contractor shall provide personnel air monitoring to satisfy OSHA regulation 29 CFR Parts 1926.1101(f). All work performed shall be in strict accordance with applicable provisions and regulations promulgated under New York State Department of Labor, Industrial Code 56 (ICR-56).

C. The Abatement Contractor shall satisfy the requirements for asbestos projects issued by the New York State Department of Labor concerning licensing and certification; notification; equipment; removal and disposal procedures; engineering controls; work area preparation; decontamination and clean-up procedures; and personnel air monitoring.

D. The Abatement Contractor shall be responsible for submittal of asbestos project notification(s) and applicable fees to EPA and NYSDOL concerning this project. Project notification(s) shall be made for the cumulative total of ACM to be removed as required by ICR-56-3.4. Work practices for each individual work area established shall be consistent with the quantity of ACM contained within that work area as defined in ICR-56-2.

E. The scope of work under this contract shall include the following:

1. All asbestos-containing materials (ACM) shall be removed in accordance with these specifications. The Abatement Contractor is responsible for field verification of estimated quantities, locations and other site conditions that may affect work.

2. All fixed objects remaining within the work area(s) shall be protected as required by Title 12 NYCRR Section 56-7.10(b) and as described in these specifications.

3. The containerization, labeling and disposal of all asbestos waste in accordance with applicable city, state and federal regulations and these specifications.

4. The Abatement Contractor will be responsible for repairing all building components damaged during abatement including, but not limited to, ceiling tiles, ceiling finishes, wall finishes and/or floor finishes, etc.

5. The Abatement Contractor shall be responsible for any and all demolition required to access materials identified in scope of work and on associated drawings.

6. Concealed conditions that are exposed and may require additional work shall be brought to the attention of the Owner(s) immediately. The Abatement Contractor shall not abate these areas without a written notice to proceed. If the Abatement Contractor removes additional asbestos prior to the order to proceed the additional work will not be acknowledged.

7. Permissible working hours shall be Monday through Friday 7:00 A.M. to 4:00 P.M. and/or as defined by the Owner(s) and/or Owner's Representative(s). Holidays shall be considered

weekends and not included for working days. Upon written approval from the Owner, the Abatement Contractor may work past these hours. The Abatement Contractor will incur any and all costs associated for work performed beyond the defined schedule including, but not limited to: abatement activities, project/air monitoring, custodial/staffing labor, overtime, mobilizations, etc.

8. Buildings will be turned over to the Abatement Contractor as is. At that time, all electrical services and HVAC systems in the proposed work areas will be shut down. Electricity and water supply will be maintained in the building for use by the Abatement Contractor. The Abatement Contractor is responsible for securing all power in the work area(s) and establishing all temporary GFCI hookups necessary to complete his work.

9. The Abatement Contractor shall remove all identified Asbestos-containing Materials (ACM) to building substrate(s); in areas indicted. Subsequent to final air clearances, the substrate(s) shall be washed with a neutralizing agent to prepare the substrate to accept new floor covering and eliminate residual odors.

10. The Abatement Contractor must coordinate location of waste containers with the Facility and the Owner. Deliveries and storage of equipment must be coordinated with the Facility and the Owner.

11. All “Large” and “Small” asbestos abatement projects, as defined by 12 NYCRR56 shall not be performed while the building is occupied. The term “building” means a wing or major section of a building that can be completely isolated from the rest of the building with sealed non-combustible construction. The isolated portion of the building must contain exists that do not pass through the occupied portion(s) and ventilation systems must be physically separated and sealed at the isolation barriers.

1.02 PRE-CONTRACT SUBMITTALS

Within three (3) days after bids are opened, the three (3) apparent low bidders shall be required to submit the following documentation:

A. Resume': Shall include the following:

1. Provide a list of projects of similar nature performed within the past two (2) years and include the dollar value of all projects. Provide project references to include owner, consultant, and air monitoring firms' name, contact person, address, and phone number, include location of project and date of completion.

2. Abatement Contractor license issued by New York State Department of Labor for asbestos work in accordance with ICR-56-3.

3. A list of owned equipment available to be used in the performance of the project.

4. The number of years engaged in asbestos removal.

5. An outline of the worker training courses, and medical surveillance program conducted by the Abatement Contractor.

6. A standard operating procedures manual describing work practices and procedures, equipment, type of decontamination facilities, respirator program, special removal techniques, etc.

7. Documentation to the satisfaction of the Owner pertaining to the Abatement Contractor's financial resources available to perform the project. Such data shall include, but not be limited to, the firm's

balance sheet for the last fiscal year.

B. Citations/Violations/Legal Proceedings

1. Submit a notarized statement describing any citations, violations, criminal charges, or legal proceedings undertaken or issued by any law enforcement, regulatory agency, or consultant concerning performance on previous asbestos abatement contracts. Briefly describe the circumstances citing the project and involved persons and agencies as well as the outcome of any actions.

2. Answer the question: "Has your firm or its agents been issued a Stop Work order on any project within the last two years?" If "Yes" provide details as discussed above.

3. Answer the question: "Are you now, or have you been in the past, a party to any litigation or arbitrations arising out of your performance on Asbestos Abatement Contracts?" If "Yes" provide details as discussed in 1. above.

4. Describe any liquidated damages assessed within the last two years.

C. Preliminary Schedule

1. Provide a detailed schedule including work dates, work shift times, estimate of manpower to be utilized and the start and completion date for completion of each major work area.

1.03 DOCUMENTATION

A. The Abatement Contractor shall be required to submit the following and receive the Consultant's approval prior to commencing work on this project:

1. Provide documentation of worker training for each person assigned to the project. Documentation shall include copies of each workers valid New York State asbestos handler certificates (for those employees who may perform asbestos removal), documentation of current respirator fit test and current OSHA required training and medical examination.

2. The attached "Asbestos Employee Medical Examination Statement" and "Asbestos Employee Training Statement" forms shall be completed, signed and submitted for each worker assigned to the project. Records of all employee training and medical surveillance shall be maintained for at least forty (40) years. Copies of the records shall be submitted to the Consultant prior to commencement.

3. The Abatement Contractor shall submit proof of a current, valid license issued by the New York State Department of Labor pursuant to the authority vested in the Commissioner by section 906 of the Labor Laws, and that the employees performing asbestos related work on this project are certified by the State of New York as required in Part 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York latest edition. Copies of all licenses shall be submitted prior to the commencement of the project.

4. The Abatement Contractor shall submit a written respiratory protection program meeting the requirements of 29 CFR 1910.134 to the Consultant.

5. The name, address, social security number and NYS DOL certificate number of the person(s) who will supervise the asbestos project.

6. The name and address of the deposit or waste disposal site or sites where the asbestos materials are to be deposited or disposed of. This site must be approved by the Owner. The manifesting

procedure must also be specified.

7. The name, address and New York State Dept. of Environmental Conservation ID Number of any transporters that are to be used to transport waste.

8. A written Standard Operation Procedure (SOP) that is designed and implemented to maximize protection against human exposure to asbestos dust. The SOP shall take into consideration the workers, visitors, building employees, general public and environment. As a minimum the procedures must include the following:

   a. Security for all work areas on an around-the-clock basis against unauthorized access.

   b. Project organization chart including the phone numbers of at least two responsible persons who shall be authorized to dispatch men and equipment to the project in the event of an emergency; including weekends.

   c. Description of protective clothing and NIOSH approved respirators to be used.

   d. Description of all removal methods to be used, including HEPA air filtration and decontamination sequence with special emphasis on any procedure that may deviate from these specifications.

   e. A list of manufacturers' certificates stating that all vacuums, negative air filtration equipment, respirators and air supply equipment meet OSHA and EPA requirements.

   f. A list of all materials proposed to be furnished and used under this contract.

   g. Emergency evacuation procedures in the event of fire, smoke or accidents such as injury from falling, heat exposure, electrical shock, etc.

   h. The name, address and ELAP number of the New York State Department of Health Certified Analytical Testing Laboratory the Contractor proposes to use for the OSHA monitoring.

9. A detailed plan, in triplicate, for the phasing of the project, division of work areas and location of decontamination facilities, waste containers and temporary office.

10. Work schedule, identifying firm dates and completion for actual areas. Bar chart or critical path chart indicating phases is required.

B. The Abatement Contractor shall post their NYS DOL contractor's license and maintain a daily log documenting the dates and time of the following items within each personal decontamination unit:

1. Meetings; purpose, attendants, discussion (brief)

2. Sign-in and sign-out of all persons entering the work area including name, date, time, social security number, position or function and general description of daily activity.

3. Testing of barriers and enclosure systems using smoke tubes prior to the beginning of abatement activities and at least once a day thereafter until satisfactory clearance air monitoring results have been achieved.

4. Inspection of all plastic barriers, twice daily, by the asbestos supervisor.

5. Loss of enclosure integrity; special or unusual events, barrier breaches, equipment failures, etc.

6. Daily cleaning of enclosures.

7. Personnel air monitoring test results for OSHA Compliance. Results shall be posted at the work site within 24 hours of testing and copies supplied to the Owner within five (5) days of testing. Abnormalities shall be supplied to the Owner immediately.

C. Documentation with confirmation signature of Consultant's representative of the following shall be provided by the Abatement Contractor at the final closeout of the project.

1. Testing of barriers and enclosure systems using smoke tubes shall be performed prior to the beginning of abatement activities and at least once a day thereafter until satisfactory clearance air monitoring results have been achieved.

2. Inspection of all plastic barriers.

3. Removal of all polyethylene barriers.

4. Consultant's inspections prior to encapsulation.

5. Removal of waste materials.

6. Decontamination of equipment (list items).

7. Consultant's final inspection/final air tests.

D. The Abatement Contractor shall provide records of all project information, to include the following which shall be submitted upon completion of the project and prior to approval of the Abatement Contractor's payment application:

1. The location and description of the abatement project.

2. The name, address and social security number of the person(s) who supervised the asbestos project.

3. Certified payroll documentation Pursuant to Article 8, Section 220 of the NYS Labor Law

4. Copies of EPA/NYSDOL Asbestos Certificates for all Workers and Supervisors employed on the Project.

5. Copies of Medical Approval and Respirator Fit Testing for all Asbestos Workers and Supervisors employed on the Project.

6. Copies of Abatement Contractors Daily Sign-In Sheets & Logs for persons entering and leaving the work area. – Title 12 NYCRR Part 56-7.3.

7. Copies of Abatement Contractor’s personal air sampling laboratory results.

8. The amounts and type of asbestos materials that was removed, enclosed, encapsulated, or disturbed.

9. The name and address of the deposit or waste disposal site or sites where the asbestos waste materials were deposited or disposed of and all related manifests, receipts and other documentation associated with the disposal of asbestos waste.

10. The name and address of any transporters used to transport waste and all related manifests, receipts and other documentation associated with the transport of asbestos waste.

11. All other information that may be required by state, federal or local regulations.

12. Copy of the Supervisor's Daily Project Log of events as described in 1.03 B, above.

1.04 NOTIFICATIONS AND PERMITS

A. The Abatement Contractor shall be required to prepare and submit notifications to the following agencies at least ten (10) days prior to the commencement of the project:

1. Asbestos NESHAPS Contact
U.S. Environmental Protection Agency
NESHAPS Coordinator, Air Facilities Branch
26 Federal Plaza
New York, New York 10007
(212) 264-7307

2. State of New York Department of Labor
Division of Safety and Health
Asbestos Control Bureau
State Office Building Campus, Building 12, Room 454
Albany, New York 12240

3. Owner(s): Public Schools of the Tarytowns
200 Broadway
Sleepy Hollow, NY 10591
ATTN: Anthony DeMan, Director of School Facilities, Operations & Maintenance
Ph. (914) 332-6256
E-mail. ademan@tufsd.org

4. Environmental Consultant(s): Quality Environmental Solutions & Technologies, Inc. (QuES&T)
1376 Route 9
Wappingers Falls, New York 12590
ATTN: Rudy Lipinski, Director of Field Operations
Ph. (845) 298-6031
Fx. (845) 298-6251
E-mail. rlipinski@qualityenv.com

B. The notification shall include but not be limited to the following information:

1. Name and address of Owner.

2. Name, address and asbestos handling license number of the Abatement Contractor.

3. Address and description of the building, including size, age, and prior use of the building or area; the amount, in square feet or linear feet of asbestos material to be removed; room designation numbers or other local information where asbestos material is found, including the type of asbestos material (friable or non-friable).

4. Scheduled starting and completion dates for removal.

5. Methods to be employed in abating asbestos containing materials.

6. Procedures and equipment, including ventilating/exhaust systems, that will be employed to comply with the Code of Federal Regulation (CFR) Title 40, Part 61 of the U.S. Environmental Protection Agency.

7. The name and address of the carting company and of the waste disposal site where the asbestos waste will be deposited.

NOTE: Notifications shall be submitted using standard forms as may be used by the respective agency.

For DOL (NYS) include "Asbestos Project Notification" form (DOSH-483) with proper fee, if required. For EPA include "Notification of Demolition and Renovation"; 40 CFR Part 61.

C. The Abatement Contractor shall secure any permits required by the city, town, county, or state that may be required and the cost for obtaining the permit shall be included in his base bid.

D. The Abatement Contractor shall erect warning signs around the work space at every point of potential entry into the work area in accordance with OSHA 1926.58k (2), (i). These signs shall bear the following information:

DANGER

CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA

E. The Abatement Contractor shall post at entrances to the work place and immediate adjacent areas, notifications to building occupants which include the name and license number of the contractor, project location and size, amount and type of ACM, abatement procedures, dates of expected occurrence and name and address of the air monitor and laboratory in compliance with ICR 56-3.6.

F. The Abatement Contractor shall post a list of emergency telephone numbers at the job site which shall include the Owner's Representative, police, emergency squad, local hospital, Environmental Protection Agency, N.Y. State Department of Labor, Occupational Safety and Health Administration and the local Department of Health.

1.05 APPLICABLE STANDARDS

Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, applicable standards of the construction industry have the same force and effects (and are made a part of contract documents by reference) as if copied directly into contract documents, or as if published copies were bound herewith. Resolution of overlapping and conflicting requirements, which result from the application of several different industry standards to the same unit of work, shall be by adherence to the most stringent requirement.

A. Applicable standards listed in these Specifications form a part of this Specification and include, but are not necessarily limited to, standards promulgated by the following agencies and organizations:

1. ANSI:
   American National Standards Institute
   1430 Broadway
   New York, New York 10018

2. ASHRAE:
   American Society for Heating, Refrigerating
   and Air Conditioning Engineers
   1791 Tullie Circle NE
   Atlanta, Georgia 30329
3. ASTM:
   American Society for Testing and Materials
   1916 Race Street
   Philadelphia, Pennsylvania 19103

4. CFR
   Code of Federal Regulations Available
   from Government Printing Office
   Washington, District of Columbia 20402

5. CGA
   Compressed Gas Association
   1235 Jefferson Davis Highway
   Arlington, Virginia 22202
6. CS
   Commercial Standard of NBS
   (US Dept. of Commerce)
   Government Printing Office

7. EPA
   Environmental Protection Agency, Region II
   26 Federal Plaza
   New York, New York 10007
   Asbestos Coordinator - Room 802
   (212) 264-9538
   Part 61, Sub-Parts A & B
   National Emission Standard for Asbestos

8. FEDERAL SPECS
   Federal Specification (General Services Administration)
   7th and D Street, SW
   Washington, District of Columbia 20406

9. NBS
   National Bureau of Standards
   (US Department of Commerce)
   Gaithersburg, Maryland 20234

10. NEC
    National Electrical Code (by NFPA)

11. NFPA
    National Fire Protection Association
    Batterymarch Park
    Quincy, Massachusetts 02269

12. NIOSH
    National Institute for Occupational Safety and Health
    26 Federal Plaza
    New York, New York 10007

13. NYSDOH
    New York State Department of Health
    Bureau of Toxic Substance Assessment
    Room 359 - 3rd Floor
    Tower Building Empire State Plaza
    Albany, New York 12237

14. NYSDEC
    New York State Department of Environmental Conservation
    Room 136
    50 Wolf Road
    Albany, New York 12233-3245

15. NYSDOL
    State of New York Department of Labor
    Division of Safety and Health
    Asbestos Control Program
    State Campus
    Building 12
    Albany, New York 12240

16. OSHA
    Occupational Safety and Health Administration
    (US Department of Labor)
    New York Regional Office - room 3445
    1515 Broadway
    New York, New York 10036

17. UL
    Underwriters Laboratories
    333 Pfingsten Road
    Northbrook, Illinois 60062

B. Federal Regulations: Those which govern asbestos abatement work or hauling and disposal of asbestos waste materials:

1. U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA):

   a. Asbestos Regulations
      Title 29, Part 1910, of the Code of Federal Regulations.

   b. Respiratory Protection
      Title 29, Part 1910, Section 134 of the Code of Federal Regulations.

   c. Construction Industry
      Title 29, Part 1926, of the Code of Federal Regulations.

   d. Access to Employee Exposure & Medical Records
      Title 29, Part 1910, Section 20 of the Code of Federal Regulations.

   e. Hazard Communication
      Title 29, Part 1910, Section 1200 of the Code of Federal Regulations.

   f. Specifications for Accident Prevention Signs and Tags
      Title 29, Part 1910, section 145 of the Code of Federal Regulations.

2. U.S. Environmental Protection Agency (EPA):

   a. Asbestos Hazard Emergency Response Act (AHERA) Regulation Asbestos Containing Materials in Schools Final Rule & Notice Title 40, Part 763, Subpart E of the Code of Federal Regulations.

   b. Worker Protection Rule
   40 CFR Part 763, Subpart G, CPTS 62044, FLR 2843-9
   Federal Register, Vol. 50, No. 134, 7/12/85, P28530-28540

   c. Regulation for Asbestos
   Title 40, Part 61, Subpart A of the Code of Federal Regulations

   d. National Emission Standard for Asbestos
   Title 40, Part 61, Subpart M (Revised Subpart B) of the Code of Federal Regulations

   e. Resource Conservation and Recovery Act (RCRA) 1976, 1980
   Hazardous and Solid Waste Amendments (HSWA) 1984
   Subtitle D, Subtitle C

3. U.S. Department of Transportation (DOT):

   a. Hazardous Substances: Final Rule Regulation 49 CFR, Part 171 and 172.

C. State Regulations: Those which govern asbestos abatement work or hauling and disposal of asbestos waste materials:

1. New York State Department of Environmental Conservation (DEC) Regulations regarding waste collection registration. Title 6, Part 364 of the New York State Official Compilation of Codes, Rules and Regulations - 6NYCRR 364.

2. New York State Right-To-Know Law

3. New York State Department of Labor Asbestos Regulations Industrial Code Rule 56.

4. New York State Department of Health, Title 10 Part 73 Asbestos Safety Program Requirements.

D. Standards: Those which govern asbestos abatement work or hauling and disposal of asbestos waste materials:

1. American National Standards Institute (ANSI)

   a. Fundamentals Governing the Design and Operation of Local Exhaust Systems
   Publication Z9.2-79

   b. Practices for Respiratory Protection
   Publication Z88.2-80

E. Guidance Documents: Those that discuss asbestos abatement work or hauling, and disposal of asbestos waste materials are listed below only for the Abatement Contractor's information. These documents do not describe the work and are not a part of the work of this contract.

EPA:

1. Guidance for Controlling Asbestos Containing Materials in Buildings (Purple Book) EPA560/5-85-024.

2. Asbestos Waste Management Guidance EPA 530-SW-85-007.

F. Patents and Royalties: The Abatement Contractor shall pay all royalties and/or license fees. The Abatement Contractor shall defend all suits and claims for infringement of any patent rights and save the Owner and Consultant harmless from loss including attorney fees on account thereof.

1.06 DEFINITIONS

As used in or in connection with these specifications the following are terms and definitions.

Abatement - Procedure to control release from asbestos material. This includes removal, encapsulation and enclosure.

Aggressive sampling - A method of sampling in which the person collecting the air sample creates activity by the use of mechanical equipment during the sampling period to stir up settled dust and simulate activity in that area of the building.

AIHA - The American Industrial Hygiene Association, 475 Wolf Ledges Parkway, Akron, Ohio 44311.

Airlock - A system for permitting entrance and exit while restricting air movement between a containment area and an uncontaminated area. It consists of two curtained doorways separated by a distance of at least three feet such that one passes through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway, thereby preventing flow-through contamination.

Air sampling - The process of measuring the content of a known volume of air collected during a specific period of time.

Amended water - Water to which a surfactant has been added.

Approved asbestos safety program - A program approved by the Commissioner of Health providing training in the various disciplines that may be involved in an asbestos project.

Area air sampling - Any form of air sampling or monitoring where the sampling device is placed at some stationary location.

Asbestos - Any naturally occurring hydrated mineral silicate separable into commercially usable fibers, including chrysotile (serpentine), amosite (cumingtonite-gunerite), crocidolite (riebeckite), tremolite, anthophyllite and actinolite.

Asbestos contract - An oral or written agreement contained in one or more documents for the performance of work on an asbestos project and includes all labor, goods and service.

Asbestos handler - An individual who installs, removes, applies, encapsulates, or encloses asbestos or asbestos material, or who disturbs friable asbestos. Only individuals certified by NYS Department of Labor shall be acceptable for work under this specification.

Asbestos handling certificate - A certificate issued by the Commissioner of Labor of the State of New York, to a person who has satisfactorily completed an approved asbestos safety program.

Asbestos project - Work undertaken by a contractor which involves the installation, removal, encapsulation, application or enclosure of any ACM or the disturbance of friable ACM.

Asbestos Safety Technician (AST) - Individual designated to represent the Consultant, perform third party monitoring and perform compliance monitoring at the job site during the asbestos project.

Asbestos waste material - Asbestos material or asbestos contaminated objects requiring disposal.

Authorized visitor - The building owner, his or her representative or any representative of a regulatory or other agency having jurisdiction over the project.

Background level monitoring - A method used to determine ambient airborne concentrations inside and outside of a building or structure prior to starting an abatement project.

Building owner - The person in whom legal title to the premises is vested unless the premises are held in land trust, in which instance Building Owner means the person in whom beneficial title is vested.

Clean room - An uncontaminated area or room that is a part of the personal decontamination enclosure with provisions for storage of persons' street clothes and protective equipment.

Cleanup - The utilization of HEPA vacuuming to control and eliminate accumulations of asbestos material and asbestos waste material.

Clearance air monitoring - The employment of aggressive sampling techniques with a volume of air collected to determine the airborne concentration of residual fibers upon conclusion of an asbestos abatement project.

Commissioner - Commissioner of the New York State Department of Labor.

Contractor - A company, unincorporated association, firm, partnership or corporation and any owner or operator thereof, which engages in an asbestos project or employs persons engaged in an asbestos project.

Curtained doorway - A device that consists of at least three overlapping sheets of plastic over an existing or temporarily framed doorway. One sheet shall be secured at the top and left side, the second sheet at the top and right side, and the third sheet at the top and the left side. All sheets shall have weights attached to the bottom to ensure that the sheets hang straight and maintain a seal over the doorway when not in use.

Decontamination enclosure system - A series of connected rooms, separated from the work area and from each other by air locks, for the decontamination of persons, materials, equipment, and authorized visitors.

Encapsulant (sealant) or encapsulating agent - A liquid material that can be applied to asbestos material and which prevents the release of asbestos from the material by creating a membrane over the surface.

Enclosure - The construction of airtight walls, ceilings and floors between the asbestos material and the facility environment, or around surfaces coated with asbestos materials, or any other appropriate procedure that prevents the release of asbestos materials.

Equipment room - A contaminated area or room that is part of the personal decontamination enclosure system with provisions for the storage of contaminated clothing and equipment.

Fixed object - A unit of equipment, furniture or other fixture in the work area which cannot be readily removed from the work area.

Friable Asbestos Material - That condition of crumbled, pulverized, powdered, crushed or exposed asbestos capable of being released into the air by hand pressure.

Friable material containment - The encapsulation or enclosure of any friable asbestos material.

Glovebag technique - A method for removing asbestos material from heating, ventilating, and air conditioning (HVAC) ducts, piping runs, valves, joints, elbows, and other nonplanar surfaces in a noncontained work area. The glovebag assembly is a manufactured device consisting of a glovebag constructed of at least six mil transparent plastic, two inward-projecting longsleeve gloves, which may contain an inward projecting waterwand sleeve, an internal tool pouch, and an attached, labeled receptacle or portion for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and to contain all asbestos fibers released during the abatement process.

HEPA filter - A high efficiency particulate air filter capable of trapping and retaining 99.97 percent of particulate greater than 0.3 microns equivalent aerodynamic diameter.

HEPA vacuum equipment - Vacuuming equipment with a high efficiency particulate air filtration system.

Holding area - A chamber in the waste decontamination enclosure located between the washroom and an adjacent uncontaminated area.

Homogeneous work area - A site within the abatement work area that contains one type of asbestos material and where one type of abatement is used.

Large asbestos project - An asbestos project involving the installation, removal, disturbance, enclosure, or encapsulation of 160 square feet or more of asbestos or asbestos material or 260 linear feet or more of asbestos or asbestos material.

Minor asbestos project - An asbestos project involving the installation, removal, disturbance, enclosure, or encapsulation of 10 square feet or less of asbestos or asbestos material, or 25 linear feet or less of asbestos or asbestos material.

Movable object - A unit of equipment, furniture or fixture in the work area that can be readily removed from the work area.

Negative air pressure equipment - A local exhaust system equipped with HEPA filtration. The system shall be capable of creating and maintaining a negative pressure differential between the outside and the inside of the work area.

Non-asbestos material - Any material containing one percent or less asbestos by weight.

Occupied area - Any frequented portion of the work site where abatement is not taking place.

Outside air - The air outside the building or structure.

Personal air monitoring - A method used to determine an individual's exposure to airborne contaminants. The sample is collected outside the respirator in the person's breathing zone.

Plasticize - To cover floors, walls, ceilings and other surfaces with 6 mil fire retardant plastic sheeting as herein specified.

Project - Any form of work performed in connection with the abatement of asbestos or alteration, renovation, modification or demolition of a building or structure that may disturb asbestos or asbestos material.

Removal - The stripping of any asbestos material.

Repair - Corrective action using required work practices to control fiber release from damaged areas.

Respiratory protection - Respiratory protection required of licensed asbestos workers and authorized visitors in accordance with the applicable laws.

Satisfactory clearance air monitoring results - For all post- abatement samples, airborne concentrations of total fibers that are less than 0.01 fibers per cubic centimeter or background levels, whichever are greater, using phase contrast microscopy (PCM).

Shower room - A room between the clean room and the equipment room in the personal decontamination enclosure with hot and cold running water controllable at the top and arranged for complete showering during decontamination.

Small asbestos project - An asbestos project involving the installation, removal, disturbances, enclosure, or encapsulation of more than 10 and less than 160 square feet of asbestos or asbestos material of more than 25 and less than 260 linear feet of asbestos or asbestos material.

Staging area - The area near the waste transfer airlock where containerized asbestos waste has been placed prior to removal from the work area.

Surfactant - A chemical wetting agent added to water to improve its penetration.

Visible emissions - An emission of particulate material that can be seen without the aid of instruments.

Washroom - A room between the work area and the holding area in the waste decontamination enclosure system, where equipment and waste containers are wet cleaned and/or HEPA vacuumed.

Waste decontamination enclosure system - An area, consisting of a washroom and a holding area, designated for the controlled transfer of materials and equipment.

Wet cleaning - The process of eliminating asbestos contamination from surfaces, equipment or other objects by using cloths, mops, or other cleaning tools.

Work area - Designated rooms, spaces, or areas where asbestos abatement takes place.

Work site - Premises where asbestos abatement is taking place.

Work Surface - Substrate surface from which asbestos-containing material has been removed.

1.07 UTILITIES, SERVICE AND TEMPORARY FACILITIES

A. The Owner shall make available to the Abatement Contractor all reasonable amounts of water and electrical power at no charge.

B. The Abatement Contractor shall provide, at his own expense, all electrical, water, and waste connections, extensions, and construction materials, supplies, etc. All connections must be approved in advance by the Owner and all work relative to the utilities must be in accordance with the applicable building codes.

C. The Abatement Contractor shall provide scaffolding, ladders and staging, etc. as necessary to accomplish the work of this contract. The type, erection and use of all scaffolding, ladders and staging, etc. shall comply with all applicable OSHA provisions.

D. All connections to the Owner's water system shall include reduced pressure backflow protection or double check and double gate valves. Valves shall be temperature and pressure rated for operation of the temperatures and pressures encountered. After completion of use, connections and fittings shall be removed without damage or alteration to existing water piping and equipment. Leaking or dripping valves shall be piped to the nearest drain or located over an existing sink or grade where water will not damage existing finishes or equipment.

E. The Abatement Contractor shall use only heavy-duty abrasion resistant hoses with a pressure rating greater than the maximum pressure of the water distribution system to provide water to each work area and to each decontamination unit. Provide fittings as required to allow for connection to existing wall hydrants or spouts, as well as temporary water heating equipment, branch piping, showers, shut-off nozzles and equipment. All water must be shut off at the end of each shift.

F. The Abatement Contractor shall provide service to decontamination unit electrical subpanel with minimum 60-amp, 2 pole circuit breaker or fused disconnect and ground-fault circuit interrupters (GFCI), reset button and pilot light, connected to the building's main distribution panel. Subpanel and disconnect shall be sized and equipped to accommodate all electrical equipment required for completion of the work. This electrical subpanel shall be used for hot water heater, PAPR battery recharging and air sampling pumps.

G. The Abatement Contractor shall provide UL rated 40-gallon electric hot water heater to supply hot water for the decontamination unit shower. Activate from 30-amp circuit breaker on the electrical subpanel located within the decontamination unit. Provide with relief valve compatible with water heater operation, relief valve down to drip pan on floor with type L copper. Wiring of the hot water heater shall follow NEMA, NEC, and UL standards.

H. The Abatement Contractor shall provide identification warning signs at power outlets, which are other than 110-120-volt power. Provide polarized outlets for plug-in type outlets, to prevent insertion of 110-120 plugs into higher voltage outlets. Dry transformers shall be provided where required to provide voltages necessary for work operations. All outlets or power supplies shall be protected by ground fault circuit interrupter (GFCI) at the power source.

I. The Abatement Contractor shall use only grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Use single lengths or use waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas of work.

J. The Abatement Contractor shall provide general service incandescent lamps of wattage indicated or required for adequate illumination; Protect lamps with guard cages or tempered glass enclosures; Provide exterior fixtures where fixtures are exposed to moisture.

K. The Abatement Contractor shall provide temporary heat or air conditioning as necessary to maintain comfortable working temperatures inside and immediately outside the work areas. Heating and A/C

equipment shall have been tested and labeled by UL, FM or another recognized trade association related to the fuel being used. Fuel burning heaters shall not be used inside containment areas. The Contractor shall also provide a comfortable working environment for occupied areas that are impacted by the asbestos removal.

L. The Abatement Contractor shall comply with recommendations of the NFPA standard in regard to the use and application of fire extinguishers. Locate fire extinguishers where they are most convenient and effective for their intended purpose but provide not less than one extinguisher in each work area, equipment room, clean room and outside the work area.

1.08 REMOVAL OF FIXTURES

A. In locations where the Abatement Contractor is directed to dispose of fixtures, he shall either decontaminate the fixtures and dispose of them as non-asbestos containing materials or he shall place them in an appropriate container and dispose of them as asbestos containing material.

B. In locations where the Abatement Contractor is directed to remove and reinstall fixtures, the fixtures shall be removed, decontaminated, labeled, protected with plastic and stored by the contractor in a location as directed by the Owner.

C. Upon completion of the asbestos removal and upon receiving satisfactory clearance air monitoring results, all items to be replaced shall be restored to their original location and reinstalled by the Abatement Contractor.

PART 2 – PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. GENERAL REQUIREMENTS

1. Materials shall be stored off the ground, away from wet or damp surfaces and under protective cover to prevent damage or contamination.

2. Damaged or deteriorating materials shall not be used and shall be removed from the premises.

3. Power tools used to drill, cut into, or otherwise disturb asbestos material shall be equipped with HEPA filtered local exhaust ventilation.

4. The Abatement Contractor shall make available to authorized visitors, ladders and/or scaffolds of sufficient dimension and quantity so that all work surfaces can be easily and safely reached for inspection. Scaffold joints and ends shall be sealed with tape to prevent incursion of asbestos. Scaffolds and ladders shall comply with all applicable codes.

B. PLASTIC BARRIERS (POLYETHYLENE)

1. In sizes and shapes to minimize the number of joints.

   a. Six mil. (.006") fire-retardant for vertical protection (walls, entrances and openings).

   b. Six mil. (.006") fire-retardant for horizontal protection (fixed equipment) and heating grilles.

   c. Six mil. (.006") reinforced fire-retardant for floors of decon units.

2. Provide two (2) layers over all roof, wall and ceiling openings. Floor penetrations shall be sealed with a rigid material prior to plasticizing to prevent tripping and fall hazards. All seams within a

layer shall be separated by a minimum distance of six feet and sealed airtight. All seams between layers shall be staggered.

3. Barrier Attachment - Commercially available duct tape (fabric or paper) and spray-on adhesive. Duct tape shall be capable of sealing joints of adjacent sheets of plastic, facilitating attachment of plastic sheets to finished or unfinished surfaces of dissimilar materials and adhering under both dry and wet conditions.

C. SIGNS

1. Danger signs shall be provided and shall conform to 29 CFR 1926.1101 and be 14" x 20". These signs shall bear the following information:

DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
RESPIRATORS AND PROTECTIVE
CLOTHING
ARE REQUIRED IN THIS AREA

D. DANGER LABELS AND TAPE

1. Labels shall be affixed to any asbestos contaminated material in accordance with the requirements of 29 CFR 1910.1200 (f) of OSHA's Hazard Communication Standard, and shall contain the following information:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID BREATHING DUST
CANCER AND LUNG DISEASE HAZARD

2. A label shall be affixed on each container of asbestos waste in accordance with the requirements of 49 CFR Parts 171 and 172, Hazardous Substances; Final Rule (U.S. Department of Transportation), and shall contain the following information:

RQ HAZARDOUS SUBSTANCE
SOLID, NOS, ORM-E, NA 9188
(ASBESTOS)

3. A label shall be affixed on each container of asbestos waste in accordance with the requirements of 40 CFR Part 61.150, NESHAP; Asbestos; Final Rule (USEPA) and shall contain the name of the waste generator and the location at which the waste was generated.
NOTE: All containers marked as above (1,2 and 3) shall be disposed of as asbestos waste.

4. Provide 3" red barrier tape printed with black lettered "DANGER ASBESTOS REMOVAL". Locate barrier tape across all corridors, entrances and access routes to asbestos work area.

E. PROTECTIVE EQUIPMENT

1. Respiratory Requirements

   a. Where fiber levels permit, and in compliance with regulatory requirements, Powered Air Purifying Respirators are the minimum allowable respiratory protection permitted to be utilized during removal operations.

   b. Where not in violation of NIOSH, OSHA, and any other regulatory requirements, the Abatement Contractor shall provide the following minimum respiratory protection to the maximum use concentrations indicated:

MSHA/NIOSH Approved Respiratory Protection	Maximum Use Concentration
Half-Mask Air Purifying with HEPA Filters	10x PEL
Full-Facepiece Air Purifying HEPA Filters and Quantitative Fit Test	10x PEL
Powered Air Purifying (PAPR), Loose fitting Helmet or Hood, HEPA Filter	25x PEL
Powered Air Purifying (PAPR), Full Facepiece, HEPA Filter	50x PEL
Supplied Air, Continuous Flow Loose fitting Helmet or Hood	25x PEL
Supplied Air, Continuous Flow Full Facepiece, HEPA Filter	50x PEL
Full Facepiece-Supplied Air Pressure Demand, HEPA Filter	100x PEL
Full Facepiece-Supplied Air Pressure Demand, with Aux. SCBA, Pressure Demand or Continuous Flow	>100x PEL

2. Disposable Clothing -"Tyvek" manufactured by Dupont or approved equal.

3. NIOSH approved safety goggles to protect eyes.

4. Polyethylene bags, 6 mil. (.006") thick (use double bags).

NOTE: Workers must always wear disposable coveralls and respirator masks while in the work area. Contaminated coveralls or equipment must be left in work area and not worn into other parts of the building.

F. TOOLS AND EQUIPMENT

1. Airless Sprayer - An airless sprayer, suitable for application of encapsulating material, shall be used.

2. Scaffolding - Scaffolding, as required to accomplish the specified work, shall meet all applicable safety regulations.

3. Transportation Equipment - Transportation equipment, as required, shall be suitable for loading, temporary storage, transport and unloading of contaminated waste without exposure to persons or property. Watertight, hard wall containers shall be provided to retain and dispose of any asbestos waste material with sharp-edged components that may tear plastic bags or sheeting. The containers shall be marked with danger labels.

4. Surfactant - Wetting Agents - "Asbestos-Wet" - Aquatrols Corp. of America or approved equal and shall be non-carcinogenic.

5. Portable (negative air pressure) asbestos filtration system - by Micro-Trap or approved equal.

6. Vacuum, HEPA type equal to "Nilfisk" #GA73, or "Pullman/Holt" #75 ASA.

7. Amended Water Sprayer - The water sprayer shall be an airless or other low-pressure sprayer for amended water application.

8. Other Tools and Equipment - The Abatement Contractor shall provide other suitable tools for the stripping, removal, encapsulation, and disposal activities including but not limited to: hand-held scrapers, nylon brushes, sponges, rounded edge shovels, brooms, and carts.

PART 3 – EXECUTION

3.01 PRE-ABATEMENT WORK AREA PREPARATION

A. The work area shall be vacated by the occupants prior to work area preparation and not reoccupied until satisfactory clearance air monitoring results have been achieved.

B. Caution signs shall be posted at all locations and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted that permit a person to read the sign and take the necessary protective measures to avoid exposure.

C. Shut down and lock out electric power to all work areas. The Abatement Contractor shall provide temporary power and lighting and ensure safe installation of temporary power sources and equipment used where high humidity and/or water shall be sprayed in accordance with all applicable codes. All power to work areas shall be brought in from outside the area through a ground-fault interrupter at the source.

D. Isolate the work area HVAC system.

E. The personnel decontamination enclosure system shall be installed or constructed prior to preparatory work in the work area and in particular before the disturbance of asbestos material. The waste decontamination enclosure system shall be installed or constructed prior to commencement of abatement activities.

F. Movable objects within the work area shall be pre-cleaned using HEPA filtered vacuum equipment and/or wet cleaning and such objects shall be removed from the work area to an uncontaminated location. If disposed of as asbestos waste material, cleaning is not required.

G. Fixed objects and other items, which are to remain within the work area, shall be pre-cleaned using HEPA filtered vacuum equipment and/or wet cleaning. Such objects shall be enclosed with two layers of at least six mil plastic sheeting and sealed with tape.

H. The work area shall be pre-cleaned using HEPA filtered vacuum equipment and/or wet cleaning. Methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, shall be prohibited. Asbestos material shall not be disturbed during pre-cleaning.

I. Isolation barriers that seal off all openings, including windows, corridors, doorways, ducts, and any other penetrations of the work area, shall be constructed using two layers of at least six mil fire-retardant plastic sheeting sealed with tape. Also, all seams in mechanical system components that pass through the work area shall be sealed. Doorways and corridors, which shall not be used for passage during work, shall also be sealed.

J. Removal of mounted objects. After isolation barriers are in place, objects such as light fixtures, electrical track, alarm systems, ventilation equipment and other items not previously sealed, shall be double sealed with six mil fire-retardant plastic sheeting. Localized HEPA filtered vacuum equipment shall be used during fixture removal to reduce asbestos dispersal.

K. Individual roof and floor drains shall be sealed watertight using two layers of 6-mil fire-retardant plastic sheeting and tape prior to plasticizing. Openings in floor shall be fully covered with plywood sheeting secured to the floor in such a way as to minimize a tripping hazard prior to plasticizing.

L. Emergency and fire exits from the work area shall be maintained or alternate exits shall be established according to all applicable codes.

M. Adequate toilet facilities shall be supplied by the Abatement Contractor and shall be located either in the clean area of the personnel decontamination enclosure or shall be readily accessible to the personnel decontamination enclosure.

3.02 LARGE ASBESTOS PROJECT PERSONNEL DECONTAMINATION ENCLOSURE SYSTEM (ICR 56-7.5)

A. The personnel decontamination enclosure shall be constructed prior to preparatory work in the work area and in particular before the disturbance of asbestos material.

1. Construction and use of personnel decontamination enclosure systems shall be in accordance with ICR-56 and any Applicable or Site-Specific Variances utilized on this project. Such systems may consist of existing rooms outside of the work area, if the layout is appropriate, that can be enclosed is plastic sheeting and are accessible from the work area. When this situation does not exist, enclosure systems may be constructed out of metal, wood or plastic support.

2. The personnel decontamination enclosure system shall consist of a clean room, a shower room, and an equipment room, in series, separated from each other and from the work area by three airlocks.

3. There shall be one shower per six full shift abatement persons calculated on the basis of the largest shift.

4. The personnel decontamination enclosure system shall be fully framed, sheathed for safety and constructed to prevent unauthorized entry.

5. Personnel decontamination enclosure systems constructed at the work site shall utilize at least six mil fire-retardant opaque plastic sheeting. At least two layers of six mil fire-retardant reinforced plastic sheeting shall be used for the flooring of this area.

6. All prefabricated decontamination units shall be completely decontaminated and sealed prior to separation and removal from the work area. Mobile decontamination units shall remain in place until satisfactory clearance results have been attained.

7. The clean room shall be sized to accommodate all authorized persons. Benches, lockers and hooks shall be provided for street clothes. Shelves for storing respirators shall also be provided. Clean clothing, replacement filters for respirators, towels and other necessary items shall be provided. The clean room shall not be used for the storage of tools, equipment or materials. It shall not be used for office space. A lockable door shall be provided to permit access to the clean room from outside the work area or enclosure. It shall be used to secure the work area and decontamination enclosure during off-shift hours.

8. The shower room shall contain one or more showers. Each shower head shall be supplied with hot and cold water adjustable at the tap. The shower enclosure shall be constructed to ensure against leakage of any kind. Uncontaminated soap, shampoo and towels shall be available at all times. Shower water shall be drained, collected and filtered through a system with at least 5.0 micron particle size collection capability. A system containing a series of several filters with progressively smaller pore sizes shall be used to avoid rapid clogging of the filtration system by large particles. Filtered wastewater shall be discharged in accordance with applicable codes. Contaminated filters shall be disposed of as asbestos waste. The shower room shall be constructed in such way that travel through the decontamination unit shall be through the shower.

9. The equipment room shall be used for the storage of equipment and tools after decontamination using a HEPA filtered vacuum and/or wet cleaning. A one day supply of replacement filters, in sealed containers, for HEPA vacuums and negative pressure ventilation equipment, extra tools, containers of surfactant and other materials and equipment that may be required during the abatement project may also be stored here. A walk-off pan filled with water shall be located in the work area just outside the equipment room for persons to clean foot covering when leaving the work area. A drum lined with a labeled, at least six mil plastic bag is required for collection of clothing and shall be located in this room. Contaminated footwear and work clothes shall be stored in this area.

3.03 WASTE DECONTAMINATION ENCLOSURE SYSTEM (ICR 56-7.5)

A. General Requirements

1. A waste decontamination enclosure system shall consist of the following:

   a. A washroom/cleanup room shall be constructed with an airlock doorway to the work area and another airlock doorway to the holding area.

   b. The holding area shall be constructed with an airlock doorway to the washroom/cleanup room and another lockable door to the outside.

2. Where there is only one egress from the work area, the holding area of the waste decontamination enclosure system may branch off from the equipment decontamination room, which doubles as a waste washroom, of the personnel decontamination enclosure.

3. The waste washroom shall be equipped with a drain installed to collect water and deliver it to the shower drain where it shall be filtered through a system with at least 5.0 micron particle size collection capability. A system containing a series of several filters with progressively smaller pore sizes shall be used to avoid rapid clogging of the filtration system by large particles. Filtered wastewater shall be discharged in accordance with applicable codes. Contaminated filters shall be disposed of as asbestos waste.

4. The waste washroom shall be constructed in such a way that travel through the rooms shall be through the waste washroom

3.04 WORK AREA ENTRY AND EXIT PROCEDURES

A. The following procedures shall be followed throughout the asbestos abatement project until satisfactory clearance air monitoring results have been achieved:

1. All persons shall enter and exit the work area through the personnel decontamination enclosure system.

2. All persons who enter the work area or an enclosure shall sign the entry/exit log, located in the clean room, upon every entry and exit.

3. All persons, before entering the work area, or an enclosure shall read and be familiar with all posted regulations, personal protection requirements, including work area entry and exit procedures, and emergency procedures. The entry/exit log headings shall indicate, and the signatures shall be used to acknowledge, that these have been reviewed and understood by all persons prior to entry.

4. All persons shall proceed first to the clean room, remove all street clothing, store these items in clean sealable plastic bags or lockers and don coveralls, head covering, foot covering and gloves. All persons shall also don NIOSH approved respiratory protection. Clean respirators and protective clothing shall be utilized, by each person, for each separate entry into the work area. Respirators shall be inspected prior to each use and tested for proper seal using quantitative or qualitative fit checks.

5. Persons wearing designated personal protective equipment shall proceed from the clean room through the shower room to the equipment room, where necessary tools are collected and any additional clothing shall be donned, before entry into the work area.

6. Before leaving the work area, all persons shall remove gross contamination from the outside of respirators and protective clothing by brushing, wet cleaning, and/or HEPA vacuuming.

7. Persons shall proceed to the equipment room where all coveralls, head covering, foot covering and gloves shall be removed. Disposable clothing shall be deposited into labeled containers for disposal. Reusable contaminated clothing, footwear, head gear and gloves shall be stored in the equipment room when not being used in the work area.

8. Still wearing respirators, persons shall proceed to the shower area, clean the outside of the respirator and the exposed face area under running water prior to removal of the respirator, and then fully and vigorously shower and shampoo to remove residual asbestos contamination. Respirators shall be washed thoroughly with soap and water. Some types of respirators will require slight modification of these procedures. An airline respirator with HEPA filtered disconnect protection shall be disconnected in the equipment room and worn into the shower. A powered air-purifying respirator facepiece shall be disconnected from the filter/power pack assembly prior to entering the shower.

9. After showering and drying, all persons shall proceed to the clean room and don clean personal protective equipment if returning to the work area or street clothing if exiting the enclosure.

3.05 EQUIPMENT AND WASTE CONTAINER DECONTAMINATION & REMOVAL PROCEDURES

A. The following procedures shall be followed throughout the asbestos abatement project until satisfactory clearance air monitoring results have been achieved.

1. External surfaces of contaminated containers and equipment shall be cleaned by wet cleaning and/or HEPA vacuuming in the work area before moving such items into the waste decontamination enclosure system airlock by persons assigned to this duty. These work area persons shall not enter the airlock.

2. These contaminated items shall be removed from the airlock by persons stationed in the washroom

during waste removal operations. These washroom persons shall remove gross contamination from the exterior of their respirators and protective clothing by brushing, HEPA vacuuming and/or wet cleaning.

3. Once in the waste decontamination enclosure system, external surfaces of contaminated containers and equipment shall be cleaned a second time by wet cleaning.

4. The cleaned containers of asbestos material and equipment are to be dried of any excessive pooled or beaded liquid, placed in uncontaminated plastic bags or sheeting and sealed airtight.

5. The clean recontainerized items shall be moved into the airlock that leads to the holding area. The washroom persons shall not enter this airlock or the work area until waste removal is finished for that period.

6. Containers and equipment shall be moved from the airlock and into the holding area by persons dressed in clean personal protective equipment, who have entered from uncontaminated areas.

7. The cleaned containers of asbestos material and equipment shall be placed in water tight carts with doors or tops that shall be closed and secured. These carts shall be held in the holding area pending removal. The carts shall be wet cleaned and/or HEPA vacuumed at least once each day.

8. The exit from the decontamination enclosure system shall be secured to prevent unauthorized entry.

9. Where the waste removal enclosure is part of the personnel decontamination enclosure, waste removal shall not occur during shift changes or when otherwise occupied. Precautions shall be taken to prevent short circuiting and cycling of air outward through the shower and clean room.

10. Containers labeled with Asbestos hazard warnings shall not be used to dispose of non asbestos waste.

3.06 ENGINEERING CONTROLS

A. Ventilation.

1. The Abatement Contractor shall employ HEPA equipped vacuums or negative air pressure equipment for ventilation as required.

2. All negative air pressure equipment ventilation units shall be equipped with HEPA filtration. The Contractor shall provide a manufacturer's test certificate for each unit documenting the capability of trapping and retaining 99.97 percent of asbestos fibers greater than 0.3 microns equivalent aerodynamic diameter.

3. A power supply shall be available to satisfy the requirements of the total of all ventilating units.

4. On electric power failure, abatement shall stop immediately and shall not resume until power is restored and exhaust units are operating fully. On extended power failure, longer than one hour, the decontamination facilities, after the evacuation of all persons from the work area, shall be sealed airtight.

5. If extending the exhaust of the ventilation units 50 feet from the building would result in an exhaust location either in the road, blocking driveway access to the facility or within 50 feet of other buildings, a second unit will be run in series with the primary unit.

3.07 MAINTENANCE OF DECONTAMINATION ENCLOSURE SYSTEMS AND WORK AREA BARRIERS

A. GENERAL REQUIREMENTS

1. The Consultant must review and approve installation before commencement of work. Upon completion of the construction of all plastic barriers and decontamination system enclosures and prior to beginning actual abatement activities.

2. All plastic barriers inside the work area, in the personnel decontamination enclosure system, in the waste decontamination enclosure system and at partitions constructed to isolate the work area from occupied areas, shall be inspected by the asbestos supervisor at least twice daily. The barriers shall be inspected before the start of and following the completion of the day's abatement activities. Inspections and observations shall be documented in the project log.

3. Damage and defects in the barriers and/or enclosure systems shall be repaired immediately upon discovery and prior to resumption of abatement activities.

4. At any time during the abatement activities, if visible emissions are observed outside of the work area of if damage occurs to the barriers, work shall be stopped, repairs made and visible residue immediately cleaned up using HEPA vacuuming methods prior to the resumption of abatement activities.

5. The Abatement Contractor shall HEPA vacuum and/or wet clean the waste decontamination enclosure system and the personnel decontamination enclosure system at the end of each day of abatement activities.

3.08 HANDLING AND REMOVAL PROCEDURES

The Abatement Contractor may utilize existing provisions of ICR-56, Applicable Variances or a Site-Specific Variance, approved by the Owner's Consultant, to permit the conduct of this work.

3.09 ABATEMENT PROCEDURES

A. AIR SAMPLING - By Owner

1. Air sampling and analysis shall be conducted according to the requirements of Subpart 56-4 before the start, during and after the completion of the asbestos removal project.

2. In addition to the requirements of Subpart 56-4, air monitoring shall be conducted in accordance with any approved job specific variance(s) or applicable variance utilized.

3. Clearance samples may be analyzed using PCM to maintain compliance with ICR-56.

4. If applicable, clearance samples will be analyzed using TEM to maintain compliance with ICR-56 and 40 CFR 763.90[i].

B. The provisions of the Applicable Variances or a Job Specific Variance shall apply only in those areas where approval has been granted by the NYS DOL and the Contractor has obtained concurrence from the Owner's Consultant. All other applicable provisions of Industrial Code Rule 56-1 through 56-12 shall be complied.

C. A copy of the NYS DOL Job Specific or Applicable Variance, if applicable, shall be conspicuously posted at the work area(s).

D. The Abatement Contractor shall construct a decontamination unit at the work site. The Abatement Contractor shall, as a minimum, comply with the requirements of 29 CFR 1926.1101(j); Hygiene facilities and practices for employees.

3.10 ENCAPSULATION PROCEDURES

The following procedures shall be followed to seal in non-visible residue, after obtaining satisfactory clearance air monitoring results, while conducting lockdown encapsulation on any surfaces which were the subject of removal or other remediation activities:

A. Only encapsulants rated as acceptable or marginally acceptable on the basis of Battelle Columbus Laboratory test procedures and rating requirements developed under the 1978 USEPA contract shall be used for lockdown encapsulation.

B. Sealants considered for use in encapsulation shall first be tested to ensure that the sealant is adequate for its intended use. A section of the work surface shall be evaluated following this initial test application of the sealant to quantitatively determine the sealant's effectiveness in terms of penetrating and locking down the asbestos fibers. The American Society of Testing and Materials (ASTM) Committee E06.21.06E on Encapsulation of Building Materials has developed a guidance document to assist in the selection of an encapsulant.

C. The encapsulant solvent or vehicle shall not contain a volatile hydrocarbon.

D. Encapsulants shall be applied using airless spray equipment.

1. Spraying is to occur at the lowest pressure range possible to minimize fiber release from encapsulant impact at the surface. It shall be applied with a consistent horizontal or vertical motion.

E. Encapsulation shall be utilized as a surface sealant once all asbestos containing materials have been removed in a work area. In no event shall encapsulant be applied to any surface that was the subject of removal or other remediation activities prior to obtaining satisfactory clearance air monitoring.

3.11 CLEANUP PROCEDURES

A. The following cleanup procedures shall be required.

1. Cleanup of accumulations of loose asbestos material shall be performed whenever enough loose asbestos materials have been removed to fill a single leak tight container of the type commensurate with the material properties. In no case shall cleanup be performed less than once prior to the close of each working day. Asbestos material shall be kept wet until cleaned up.

2. Accumulations of dust shall be cleaned off all surfaces on a daily basis using HEPA vacuum cleaning methods.

3. Decontamination enclosures shall be HEPA vacuumed at the end of each shift.

4. Accumulations of asbestos waste material shall be containerized utilizing HEPA vacuums or rubber or plastic dust pans, squeegees or shovels. Metal shovels shall not be used to pick up or move waste.

5. Excessive water accumulation or flooding in the area shall require work to stop until the water is collected and disposed of properly.

B. The following cleanup procedures shall be required after completion of all removal activities.

1. All accumulations of asbestos waste material shall be containerized utilizing HEPA vacuums or rubber or plastic dust pan, squeegees or shovels. Metal shovels shall not be used to pick up or move waste. HEPA vacuums shall be used to clean all surfaces after gross cleanup.

2. Cleaning. All surfaces in the work area shall be HEPA vacuumed. To pick up excess liquid and wet debris, a wet purpose shop vacuum may be used and shall be decontaminated prior to removal from the work area.

3. Windows, doors, HVAC system vents and all other openings shall remain sealed. Decontamination enclosure systems shall remain in place and be utilized.

4. All containerized waste shall be removed from the work area and the holding area.

5. All tools and equipment shall be decontaminated and removed from the work area.

6. A final visual inspection and clearance air monitoring, as per the schedule for air sampling and analysis, shall be conducted.

7. The isolation barriers and decontamination unit shall be removed only after satisfactory clearance air monitoring results have been achieved.

3.12 SAFETY MONITORING – CONSULTANT:

The Consultant will designate an Asbestos Safety Technician (AST) to represent the Owner during the removal program. The AST must be on the job site at all times during abatement work. Absolutely no abatement or preparation work will occur without the presence of the AST.

The AST will conduct four (4) milestone inspections.

1. Pre-commencement inspection shall be conducted as follows:

   a. Notification in writing to the Consultant shall be made by the Abatement Contractor to request a pre-commencement inspection at least 48 hours in advance of the desired date of inspection. This inspection shall be requested prior to beginning preparatory work in another work area.

   b. The AST shall ensure that:

      i. The job site is properly prepared and that all containment measures are in place;

      ii. The designated supervisor shall present to the inspector a valid supervisor's license issued by the New York Department of Labor;

      iii. All workers shall present to the inspector a valid handler's license issued by the New York Department of Labor;

      iv. Measures for the disposal of removed asbestos material are in place and shall conform to the adopted standards;

      v. The Abatement Contractor has a list of emergency telephone numbers at the job site which shall include the monitoring firm employed by the Owner and telephone numbers for fire, police, emergency squad, local hospital and health officer.

   c. If all is in order, the AST shall issue a written notice to proceed in the field. If the job site is not in order, then any needed corrective action must be taken before any work is to commence. Conditional approvals shall not be granted.

Progress inspection shall be conducted as follows:

a. Primary responsibility for ensuring that the abatement work progresses in accordance with these technical specifications and regulatory requirements rests with the Abatement Contractor. The AST shall continuously be present to observe the progress of work and perform required tests.

b. If the AST observes irregularities at any time, he shall direct such corrective action as may be necessary. If the Abatement Contractor fails to take the corrective action required, or if the Abatement Contractor or any of their employees habitually and/or excessively violate the requirements of any regulation, then the AST shall inform the Owner who shall issue a Stop Work Order to the Abatement Contractor and have the work site secured until all violations are abated.

Clean-up inspections shall be conducted as follows:

a. Notice for clean-up inspection shall be requested by the Abatement Contractor at least 24 hours in advance of the desired date of inspection;

b. The clean-up inspection shall be conducted prior to the removal of any isolation or critical barriers and before final air clearance monitoring;

c. The AST shall ensure that:

i. The work site has been properly cleaned and is free of visible asbestos containing material and debris.

ii. All removed asbestos has been properly placed in a locked secure container outside of the work area.

d. If all is in order, the AST shall issue a written notice of authorization to remove surface barriers from the work area. All isolation barriers shall remain in place until satisfactory clearance air sampling has been completed.

4. Clearance Visual Inspection shall be conducted after the removal of non-critical plastic sheeting. The AST shall insure that:

a. The work area is free of all visible asbestos or suspect asbestos debris and residue.

b. All waste has been properly bagged and removed from the work area.

c. Should clearance visual inspection identify residual debris, as determined by the AST, the Abatement Contractor is responsible for recleaning the area at his own cost and shall bear all costs of reinspection until acceptable levels are achieved.

B. The Abatement Contractor shall be required to receive written approval before proceeding after each milestone inspection.

3.13 PERSONNEL AIR MONITORING – CONTRACTOR (29 CFR 1926.1101)

A. Personnel air monitoring shall be provided to determine both short-term (STEL) and full shift during when abatement activities occur. Personnel sampling shall be performed in each work area in order to accurately determine the concentrations of airborne asbestos to which workers may be exposed.

B. The Abatement Contractor shall have a qualified "Competent Person" (as specified in 29 CFR 1926 OSHA) to conduct personnel air monitoring.

C. The laboratory performing the air sample analysis shall be certified by NYS DOH ELAP and approved by the consultant.

D. Personnel air monitoring test results for OSHA Compliance. Results shall be posted at the work site within 24 hours of testing and copies supplied to the Owner within five (5) days of testing. Abnormalities shall be supplied to the Owner immediately.

3.14 CLEARANCE AIR MONITORING

A. Air samples will be collected in and around the work areas at the completion of abatement activities.

B. Clearance samples may be analyzed using PCM to maintain compliance with ICR-56.

C. If applicable, clearance samples will be analyzed using TEM to maintain compliance with ICR-56 and 40 CFR part 763 “Asbestos-Containing Materials in Schools; Final Rule and Notice” section 763.90.

D. ***RETESTING***
Should clearance air monitoring yield fiber concentrations above the “Clearance” criteria of either 0.01 fibers per CC and/or background levels (PCM) –OR- seventy (70) structures per square millimeter (TEM/AHERA), the Abatement Contractor is responsible for re-cleaning the area at his own cost and shall bear all costs associated with the retesting of the work area(s) including monitoring labor, sampling, analysis, etc. until such levels are achieved.

3.15 RESPIRATORY PROTECTION REQUIREMENT

A. Respiratory protection shall be worn by all individuals inside the work area from the initiation of the asbestos project until all areas have successfully passed clearance air monitoring in accordance with these specifications. The Abatement Contractor shall keep available at all times two PAPR's with new filters and charged batteries for use by authorized visitors.

B. All respiratory protection shall be MSHA/NIOSH approved in accordance with the provisions of 30 CFR Part II. All respiratory protection shall be provided by the Abatement Contractor and used by workers in conjunction with the written respiratory protection program.

C. The Abatement Contractor shall provide respirators that meet the requirements of 29 CFR Parts 1910 and 1926.

1. Full facepiece Type C supplied-air respirators operated in pressure demand mode equipped with an auxiliary self- contained breathing apparatus, operated in pressure demand or continuous flow, shall be worn during gross removal, demolition, renovation and/or other disturbance of ACM whenever airborne fiber concentrations inside the work area are greater than 10.0 f/cc.

2. Full facepiece Type C supplied-air respirators operated in pressure demand mode with HEPA filter disconnect protection shall be work during gross removal, demolition, renovation and/or other disturbance of ACM with an amphibole content and/or whenever airborne fiber concentrations inside the work area are equal to or greater than 0.5 f/cc and less than or equal to 10.0 f/cc.

3. Full facepiece powered air-purifying respirators (PAPR) equipped with HEPA filters shall be worn during the removal, encapsulation, enclosure, repair and/or other disturbance of friable ACM if airborne fiber concentrations inside the work area are less than 0.5 f/cc. A supply of charged replacement batteries, HEPA filters and flow test meter shall be available in the clean room for use with powered air-purifying respirators. HEPA filters shall be changed daily or as flow testing indicates change is necessary. Any Type C supplied-air respirator operated in continuous flow, with HEPA filter disconnect protection, may be substituted for a powered air-purifying respirator.

4. Loose fitting helmets or hoods with powered air-purifying respirators (PAPR) equipped with HEPA filters may be worn during the removal, encapsulation, enclosure, repair and/or other disturbance of friable ACM if airborne fiber concentrations inside the work area are less than 0.25 f/cc. A supply of charged replacement batteries, HEPA filters and flow test meter shall be available in the clean room for use with powered air-purifying respirators. HEPA filters shall be changed daily or as flow testing indicates change is necessary. Any Type C supplied-air respirator operated in continuous flow may be substituted for a powered air- purifying respirator.

5. Half-mask or full-face air-purifying respirators with HEPA filters shall be worn only during the preparation of the work area and final clean up procedures provided airborne fiber concentrations inside the work area are less than 0.1 f/cc.

6. Use of single use dust respirators is prohibited for the above respiratory protection.

D. Workers shall be provided with personally issued and individually marked respirators. Respirators shall not be marked with any equipment that will alter the fit of the respirator in any way. Only waterproof identification markers shall be used.

E. The Abatement Contractor shall ensure that the workers are qualitatively or quantitatively fit tested by an Industrial Hygienist initially and every six months thereafter with the type of respirator he/she will be using.

F. Whenever the respirator design permits, workers shall perform the positive and negative air pressure fit test each time a respirator is worn. Powered air-purifying respirators shall be tested for adequate flow as specified by the manufacturer.

G. No facial hair, which interferes with the face-to-mask sealing surface, shall be permitted to be worn when wearing respiratory protection that requires a mask-to-face seal.

H. Contact lenses shall not be worn in conjunction with respiratory protection.

I. If a worker wears glasses, a spectacle kit to fit their respirator shall be provided by the Abatement Contractor at the Abatement Contractor's expense.

J. Respiratory protection maintenance and decontamination procedures shall meet the following requirement:

1. Respiratory protection shall be inspected and decontaminated on a daily basis in accordance with OSHA 29 CFR 1910.134(b); and

2. HEPA filters for negative pressure respirators shall be changed after each shower; and

3. Respiratory protection shall be the last piece of worker protection equipment to be removed. Workers must wear respirators in the shower when going through decontamination procedures; and

4. Airline respirators with HEPA filtered disconnect shall be disconnected in the equipment room and worn into the shower. Powered air-purifying respirator facepieces shall be worn into the shower. Filtered/power pack assemblies shall be decontaminated in accordance with manufacturers' recommendations; and

5. Respirators shall be stored in a dry place and in such a manner that the facepiece and exhalation valves are not distorted; and

6. Organic solvents shall not be used for washing of respirators.

K. No visitors shall be allowed to enter the contaminated area if they do not have their medical certification and training certificate. Authorized visitors shall be provided with suitable PAPR respirators and instructions on the proper use of respirators whenever entering the work area.

3.16 DISPOSAL OF WASTE

A. APPLICABLE REGULATIONS

1. All asbestos waste shall be stored, transported and disposed of as per, but not limited to, the following Regulations:

   a. NYS Code Rule 56

   b. U.S. Department of Transportation (DOT)
   Hazardous Substances
   Title 29, Part 171 and 172 of the code of Federal Regulations
   regarding waste collector registration

   c. Regulations regarding waste collector registration Title 6, part 364 of the New York State Official Compilation of Codes, Rules and Regulations – 6 NYCRR 364

   d. USEPA NESHAPS 40 CRF 61

   e. USEPA ASBESTOS WASTE MANAGEMENT GUIDANCE EPA/530-SW-85-007

B. TRANSPORTER OR HAULER - The Abatement Contractor shall bear full responsibility for proper characterization, transportation and disposal of all solid or liquid waste, generated during the project, in a legal manner. The Owner shall approve all transportation and disposal methods.

1. The Abatement Contractor's Transporter (hauler) and disposal site shall be approved by the Owner. The Abatement Contractor shall remove within 48 hours all asbestos waste from the site after completing the clean up.

2. The Transporter must possess and present to the Owner's representative a valid New York State Department of Environmental Conservation Part 364 asbestos hauler's permit to verify license plate and permit numbers. The Owner's representative will verify the authenticity of the hauler's permit with the proper authority.

3. The Abatement Contractor shall give 24 hour notification prior to removing any waste from the site. All waste shall be removed from site only during normal working hours. No waste may be taken from the site without authorization from the Owner's representative.
4. The Abatement Contractor shall have the Transporter give the date and time of arrival at the disposal site.

5. The Transporter with the Abatement Contractor and Owner's consultant shall inspect all material in the transport container prior to taking possession and signing the Waste Manifest. The Transporter shall not have any off site transfers or be combined with any other off-site asbestos material.

6. The Transporter must travel directly to the disposal site with no unauthorized stops.

C. WASTE STORAGE CONTAINER

1. During loading and on site storage, the asbestos waste container shall be labeled with EPA Danger signage:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

2. The NYS DEC Hauler's Permit number shall be on both sides and back of the container.

3. The Container will not be permitted to leave the site without the proper signage.

4. A copy of the completed waste manifest shall be forwarded directly to the Owner's Consultant by the disposal facility.

5. Packaging of Non-friable Asbestos. Use of an open top container shall require written request, by the Contractor, and written approval by the Owners Representative, and be performed in compliance with all applicable regulations.

   a) A chute, if used, shall be air/dust tight along its lateral perimeter and at the terminal connection to the dumpster at ground level (solid wall and top container). The upper end of the chute shall be furnished with a hinged lid, to be closed when the chute is not being used.

   b) The container shall be lined with a minimum of two (2) layers of 6 mil. Fire-retardant polyethylene draped loosely over the sides so as to facilitate being wrapped over the top of the load and sealed prior to transport from the site.

   c) Prior to transport from the work site the Dumpster will be disconnected from the chute and sealed air/dust tight utilizing six mil plastic and tape. The waste material will be transported as an asbestos containing material by appropriate legal methods.

6. Packaging Friable Asbestos.

   a) The container shall be a solid wall, hard top and lockable container.

   b) The container shall be locked upon arrival at the site to restrict access. Security shall be provided at the entrance to the container during the loading process and immediately locked upon completion.

   c) The interior walls, floor and ceiling shall be lined with two (2) layers of 6 mil. Fire-retardant polyethylene.

   d) The waste shall be loaded in such a manner as to protect the integrity of the individual waste packages.

   e) Prior to transport from the work site the interior of the Dumpster will sealed air/dust tight utilizing six mil plastic and tape. The waste material will be transported as an asbestos containing material by appropriate legal methods.

D. WASTE DISPOSAL MANIFEST

1. The Asbestos Waste Manifest shall be equivalent to the "Waste Shipment Record" included in 40 CFR 61. A copy of the Contractor's manifest shall be reviewed by the Owner's Consultant and shall

be the only manifest used.

2. The Manifest shall be verified by the Owner's Consultant indicating that all the information and amounts are accurate and the proper signatures are in place.

3. The Manifest shall have the signatures of the Abatement Contractor and the Transporter prior to any waste being removed from the site.

4. The Manifest shall be signed by the Disposal Facility owner or operator to certify receipt of asbestos containing materials covered by the manifest.

5. A copy of the completed manifest shall be provided by the Abatement Contractor to the Owner's Consultant and remain on site for inspection.

6. Abatement Contractor shall maintain a waste disposal log which indicates load number, date and time left site, container size, type of waste, quantity of waste, name of hauler, NYS DES permit number, trailer and tractor license number, and date manifest was returned to Consultant.

7. The Disposal Facility owner or operator shall return a signed copy of the Waste Manifest directly to:

Public Schools of the Tarrytowns
200 Broadway
Sleepy Hollow, New York 10591
ATTN: Anthony DeMan – Director of School Facilities, Operations & Maintenance

8. Copies of the completed Waste Manifest are to be sent by the disposal facility to the Hauler and Abatement Contractor.

9. Submit signed dump tickets and manifests with final payment request.

10. Final payment request will not be honored without signed dump ticket or manifests accounting for all asbestos waste removed from the site.

E. VIOLATIONS OF SPECIFICATIONS

1. Violations of the safety, hygiene, environmental, procedures herein, any applicable federal, state of local requirement s or failure to cooperate with the Owner's representative shall be grounds for dismissal and/or termination of this contract.

F. VIOLATIONS OF NO SMOKING POLICY

1. The Federal Pro Children Act of 1994 prohibits School District Officials from smoking in any buildings or on the grounds that is property of the School District. The District shall be considered smoke free. The School District strongly enforces its' No Smoking Policy. It is the Contractor's responsibility to inform all workers of this policy. Any worker(s) involved with this project that are found smoking or using tobacco products will be informed that they are in violation of the Federal and State Law and School Board Policy and will be removed from site.

3.17 LOCATION OF "ABATEMENT WORK"

(Please see attached Drawings for approximate locations)

1) <u>W.L Morse Elementary School (INTERIOR ABATEMENTS)</u>

- Abatement Contractor responsible for total and complete removal and disposal of approximately 21,072 SF of non-friable asbestos-containing Floor Tiles, Mastics and/or Floor Fillers, as detailed on the attached ACM Location Drawing. Removals shall include all flooring system layers to building substrate(s) beneath. After final air clearance, flooring substrates shall be washed with a neutralizing agent to prepare the substrate to accept new floor covering(s) and eliminate residual odors. See below for breakdown:
  - Basement Floor
    - Stair A Landing (60 SF)
    - Staff Lounge 008 & Bathrooms (570 SF)
  - First Floor
    - Lobby 100 (498 SF)
    - Corridor A & Stair C Corridor (1083 SF)
    - Corridor B (696 SF)
    - Stair B Landing (231 SF)
    - Corridor C & Stair D & E Corridors (1,142 SF)
    - Classroom 10 (657 SF)
    - Classroom 11 (659 SF)
    - Classroom 12 (652 SF)
    - Classroom 13 (457 SF)
    - Office 13A (195 SF)
    - Classroom 14 (655 SF)
    - Principal 15 & Server 15A (368 SF)
    - Classroom 15 (670 SF)
    - Classroom 16 (632 SF)
    - Classroom 17 (639 SF)
    - Classroom 18 (622 SF)
    - Vestibule to Storage Room 109B (20 SF)
  - Second Floor
    - Lobby 200 and Stair A Top Landing (500 SF)
    - Corridor A & Stair C Corridor (916 SF)
    - Corridor B (701 SF)
    - Corridor C & Stair D & E Corridors (1,176 SF)
    - Classroom 20 (611 SF)
    - Speech 22B (310 SF)
    - Classroom 22 (947 SF)
    - Classroom 24 (1,945 SF)
  - Third Floor
    - Social Worker / Library 31A (445 SF)
    - Art Room 31 (968 SF)
    - Art Room 31 Storage Room (83 SF)
    - Stair B Corridor (132 SF)
    - Math Specialists / ENL Room 30 (644 SF)
    - Music Room 30 (1,168 SF)
    - ENL Classroom 35 Door Threshold (10 SF)
    - GR 2 Classroom 39 Door Threshold (10 SF)

- Abatement Contractor responsible for total and complete removal and disposal of approximately 160 LF of friable asbestos-containing Mudded Joint Packing (Elbows), Pipe Insulation and/or associated debris, as detailed on attached ACM Location Drawings. Abatement Contractor responsible for all demolition required to access material(s), as well as for providing all equipment necessary to access material(s). See below for breakdown:

Location of Abatement Work Cont'd…

- Basement Floor
  - Fan Room (100 LF)
  - Lobby 003 (20 LF)
  - Stair A Lower Landing (20 LF)
  - Corridor A (20 LF)

- Abatement Contractor responsible for probing of ceilings and/or wet walls within identified bathrooms and responsible for total and complete removal and disposal of approximately 385 LF of friable presumed asbestos-containing Mudded Joint Packing (Elbows) and/or Pipe Insulation, as detailed on attached ACM Location Drawings. Abatement Contractor responsible for all demolition required to access material(s), as well as for providing all equipment necessary to access material(s). See below for breakdown:
  - Basement Floor
    - Boys Locker Room 006 (125 LF)
  - First Floor
    - Boys Toilet 115 (40 LF)
    - Girls Toilet 116 (40 LF)
  - Second Floor
    - Boys Toilet 218 (40 LF)
    - Girls Toilet 219 (40 LF)
    - Mens Toilet & Custodian Closet (50 LF)
    - Womens Toilet & Teachers Work Room (50 LF)

- Abatement Contractor responsible for total and complete removal and disposal of two (2) sectional boilers with approx. 600 SF (300 SF each) of friable asbestos-containing rib gaskets and presumed asbestos-containing Boiler Interiors, as detailed on attached ACM Location Drawings. Abatement Contractor responsible for all demolition required to access material(s), as well as for providing all equipment necessary to access material(s). See below for breakdown:
  - Boiler Room, Two (2) Sectional Boilers (600 SF, 300 SF Per Boiler)

- Abatement Contractor responsible for total and complete removal and disposal of ceramic wall tile system with approximately 1,200 SF of non-friable asbestos-containing Adhesive and approximately 25 SF of friable asbestos-containing Grout, as detailed on the attached ACM Location Drawing. Removals shall include the entire ceramic wall tile system to the substrate(s) behind. Abatement Contractor responsible for all demolition required to access material(s), as well as for providing all equipment necessary to access material(s). See below for breakdown:
  - Basement Floor
    - Boys Locker Room 006 (1,200 SF & 25 SF)

- Abatement Contractor responsible for total and complete removal and disposal of approximately 300 SF of non-friable presumed asbestos-containing sub slab vapor barrier, as detailed on attached ACM Location Drawings. Exact removal location shall be coordinated with the General Contractor. Abatement Contractor responsible for all demolition required to access material(s), as well as for providing all equipment necessary to access material(s). See below for breakdown:
  - Custodial Office 009 and Adjacent Rooms/Spaces (300 SF)

Location of Abatement Work Cont'd…

2) W.L Morse Elementary School (EXTERIOR ABATEMENTS)

- Abatement Contractor responsible for total and complete removal and disposal of approximately 200 SF of non-friable presumed asbestos-containing waterproofing tar on below grade foundation wall, as detailed on attached ACM Location Drawings. Exact removal location shall be coordinated with the General Contractor. Abatement Contractor responsible for all demolition required to access material(s), as well as for providing all equipment necessary to access material(s). See below for breakdown:
  - Courtyard Below Grade to Cafeteria Area (200 SF)

- Abatement Contractor responsible for spot removal and disposal of approximately 30 SF (10 SF per location) of non-friable presumed asbestos-containing waterproofing tar on top of below grade concrete cola storage ceiling deck, as detailed on attached ACM Location Drawings. Exact removal location shall be coordinated with the General Contractor. Abatement Contractor responsible for all demolition required to access material(s), as well as for providing all equipment necessary to access material(s). See below for breakdown:
  - Top of Concrete Coal Storage (30 SF total, 10 SF per location)

END OF LOCATION OF WORK

3.18 GENERAL

A. The Abatement Contractor will be responsible for repairing all building components damaged during abatement including, but not limited to: ceiling tiles, ceiling finishes, wall finishes, floor finishes, etc.

B. The Abatement Contractor shall be responsible for all demolition required to access materials identified in scope of work and on associated drawings.

C. Concealed conditions that are exposed and may require additional work shall be brought to the attention of the Owner immediately. The Abatement Contractor shall not abate these areas without a written notice to proceed. Additional asbestos abatement performed prior to the order to proceed will not be acknowledged.

D. The Abatement Contractor shall remove asbestos-containing floor covering to the building substrate beneath; in areas indicted. Subsequent to final air clearance the substrate shall be washed with a neutralizing agent to prepare the substrate to accept new floor covering and eliminate residual odors.

E. Power tools used to drill, cut into or otherwise disturb asbestos containing material shall be equipped with HEPA filtered local exhaust ventilation.

F. The Abatement Contractor shall provide access to GFCI electrical power, required to perform the area air monitoring for this project, within and immediately adjacent to each work area.

G. Unwrapped or unbagged ACM shall be immediately placed in an impermeable waste bag or wrapped in plastic sheeting.

H. Coordinate all removal operations with the Owner.

Asbestos Employee Medical Examination Statement
Certificate of Worker Release
Asbestos Employee Training Statement
CERTIFICATE OF WORKERS'S ACKNOWLEDGEMENT

PROJECT NAME: **Public Schools of the Tarrytowns: 2024 Capital Bond Project - Phase 1**

CONTRACTOR'S NAME:_____

WORKING WITH ASBESTOS INVOLVES POTENTIAL EXPOSURE TO AIRBORNE ASBESTOS FIBERS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER AND RESPIRATORY DISEASES. SMOKING CIGARETTES AND INHALATION OF ASBESTOS FIBERS INCREASES THE RISK THAT YOU WILL DEVELOP LUNG CANCER ABOVE THAT OF THE NON-SMOKING PUBLIC.

The Contract for this project requires your employer to 1) supply proper respiratory protection devices and training on their use 2) provide training on safe work practices and on use of the equipment used on the project 3) provide a medical examination meeting the requirements of 29 CFR 1926.1101. Your signature on this certificate, documents that your employer has fulfilled these contractual obligations and you understand the information presented to you.

************DO NOT SIGN THIS FORM UNLESS YOU FULLY UNDERSTAND THIS INFORMATION*********

RESPIRATORY PROTECTION: I have been trained in the proper use and limitations of the type of respiratory protection devices to be used on this project. I have reviewed the written respiratory protection program manual and a copy is available for my use. Respiratory protection equipment has been proved, by the Contractor, at no cost to me.

TRAINING COURSE: I have been trained in the risks and dangers associated with handling asbestos, breathing asbestos dust, proper work procedures, personal protection and engineering controls. I have satisfactorily completed and Asbestos Safety Training Program for New York State and have been issued a New York State Department of Health Certificate of Asbestos Safety Training.

MEDICAL EXAMINATION: I have satisfactorily completed a medical examination within the last 12 months that meets the OSHA requirement for an asbestos worker and included at least 1) medical history 2) pulmonary function 3) medical examination 4) approval to wear respiratory protection devises and may have included an evaluation of a chest x-ray.

Signature:_____Date_____

Printed Name:_____SS#:_____

Witness:_____Date:_____

Public Schools of the Tarrytowns: 2024 Capital Bond Project - Phase 1

ESTIMATE OF ACM QUANTITIES

****

EACH ABATEMENT CONTRACTOR SHALL READ AND ACKNOWLEDGE THE FOLLOWING NOTICE. A SIGNED AND DATED COPY OF THIS ACKNOWLEDGMENT SHALL BE SUBMITTED WITH THE ABATEMENT CONTRACTOR'S BID FOR THIS PROJECT. FAILURE TO DO SO MAY, AT THE SOLE DISCRETION OF THE OWNER, RESULT IN THE BID BEING CONSIDERED NON-RESPONSIVE AND RESULT IN DISQUALIFICATION OF THE ABATEMENT CONTRACTOR'S BID ON THIS PROJECT.

****

***** NOTICE *****

The linear and square footages listed within this specification are approximates. Abatement Contractor is required to visit the work locations prior to bid submittal in order to take actual field measurements within each listed location. The Abatement Contractor shall base their bid on actual quantities determined, by them, at the site walkthrough. Estimates provided in these specifications are for informational purposes only and shall not be considered a basis for Change Orders on this project.

****

Acknowledgment: I have read and understand the above **NOTICE** regarding removal quantity estimates and understand that estimates provided in these specifications are for informational purposes only and shall not be considered a basis for Change Orders on this project. The Abatement Contractor's signatory represents to the Owner that he/she has the authority of the entity he/she represents to sign this agreement on its behalf.

Company Name: _____
Type or Print

BY: _____ _____ _____
Signature Title Date

Print Name: _____

ASSOCIATED ASBESTOS REMOVAL LOCATION DRAWINGS

- ***Public Schools of the Tarrytowns: 2024 Capital Bond Project - Phase 1***

  - **AA000** – General Asbestos Abatement Notes
  - **AA100** – Sub Basement Asbestos Abatement Plan
  - **AA101** – Basement Asbestos Abatement Plan
  - **AA102** – First Floor Asbestos Abatement Plan
  - **AA103** – Second Floor Asbestos Abatement Plan
  - **AA104** – Third Floor Asbestos Abatement Plan

END OF SECTION 020800

SECTION 028301
LEAD-BASED PAINT STABILIZATION & ENCAPSULATION

Section 1.0 Introduction

This Lead-Based Paint Specification has been developed by Quality Environmental Solutions & Technologies (QuES&T), for the Winfield L. Morse Elementary School located at 30 Pocantico Street, Sleepy Hollow, NY. The WL Morse Elementary School is undergoing a renovation and addition project that involves the disturbance and/or repair of painted surfaces. Some of the interior painted surfaces in the building tested positive (1.0 mg/cm^2 or greater) for lead when surveyed with an X-ray fluorescence analyzer (XRF). XRF is a non-destructive analytical technique used to determine the elemental composition of materials, including the presence of lead. The XRF survey results for WL Morse can be viewed in the **Attachment** to this Specification. Note that this Specification is limited to painted surfaces in stairwells that tested positive for lead-based paint.

Where painted surfaces in stairwells that tested positive for lead (e.g. stairwell to gym) need repair, they shall be scrapped and encapsulated as specified herein. The work plan is based on our visit to the site, a review of the XRF data, and the best lead safe work practices for protecting workers and the public.

Lead abatement projects are designed to permanently eliminate existing lead-based paint hazards. Lead abatement is different than activities such as drilling, cutting, scraping, and encapsulating lead-containing surfaces. The latter are covered under 29 CFR 1926.62 (the OSHA *Lead Construction Standard*) and 40 CFR 745 (the EPA Lead Renovation, Repair & Painting Rule). The work in the stairwells at W.L. Morse Elementary does not fall into the scope of **S** 745.61(b), so only OSHA lead safe work practices are applicable.

Objects that tested positive (>1.0 mg/cm2) for lead may end up in the demolition debris. Metal objects painted with or containing lead are typically recycled. Whole building demolition debris is generally considered to be non-hazardous with regard to lead content due to the weight of the debris itself. Demolition waste streams may need to be sampled & analyzed via TCLP for lead. The EPA cut off regulatory limit for lead via TCLP is 5.0 mg/L. The controlling contractor shall ensure that demolition debris is disposed of properly.

1.1 References

A. New York State Department of Environmental Conservation (DEC) 6NYCRR:
1. Part 360 Solid Waste Management Facilities.
2. Part 364 Waste Transporter Permits.
3. Part 370 Hazardous Waste Management System-General.
4. Part 371 Identification and Listing of Hazardous Wastes.
5. Part 372 Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities.
6. Part 373 Hazardous Waste Management Facilities.

B. New York State Department of Transportation (DOT): Follow all regulations of 49CFR Part 100 through 199.

C. Occupational Safety and Health Administration (OSHA): Lead Exposure in Construction: Interim Final Rule 29 CFR 1926.62.

D. U.S. Department of Housing and Urban Development (HUD):

Guidelines for evaluation and control of Lead based paint hazards: Title Ten of Housing and Community Act of 1992.

E. U.S. Environmental Protection Agency (EPA): Resource Conservation and Recovery Act (RCRA) Section 3004 Hazardous and Solid Waste Amendments.

F. U.S. Environmental Protection Agency (EPA): Toxicity Characteristics Leaching Procedure EPA Method 1311.

1.2 Definitions

A. Authorized Personnel: Those personnel authorized by the controlling contractor to be on site, and all other personnel who are authorized officials of any regulating agency, be it State, Local, Federal or Private entity who possess legal authority for enforcement or inspection of the work.

B. Containment: The enclosure within the building which establishes a contaminated area and surrounds the location where lead remediation is taking place and establishes a Lead Control Work Area.

C. Fixed Object: Mechanical equipment, electrical equipment, fire detection systems, alarms, and all other fixed equipment, furniture, fixtures or other items which cannot be removed from the work area.

D. HEPA: High Efficiency Particulate Absolute filtration efficiency of 99.97 percent down to 0.3 microns. Filtration provided on specialized vacuums and air filtration devices to trap particles.

E. Lead Based Paint (LBP): Paints or other surface coatings that contain lead equal to or greater than 1.0 milligrams per square centimeter or 0.5 percent of lead by weight.

F. Lead Dust Control Work Area: A cordoned off area with drop clothes or an enclosed area or structure with containment to prevent the spread of lead dust, paint chips, or debris from lead-containing paint disturbance operations.

G. PPE: Personal Protective Equipment (e.g. eye protection, head protection, respiratory protection).

1.3 Submittals

A. Quality Control Submittals: Submit the entire package at the same time.
1. Worker's Qualifications: The individuals disturbing lead containing/coated material and their supervisors shall be personally experienced in this type of work. The names of the workers and their qualifications should be on file.
2. Detailed Work Plan: Submit one copy of the work plan.

B. Operation and Maintenance Data: Submit air filtration unit operation and

maintenance data and manufacturer's catalog sheets for the HEPA filtration devices.

1. Provide assurances & documentation that HEPA filters do not create excessive back pressure and that all prefilter media is clean and new.

C. Contract Closeout Submittals:

1. Assessment Report showing that the work area has the requirements specified under the cleaning criteria (see Section 3.8).
2. Disposal Site Receipts: Copy of waste shipment record and disposal site receipt showing that the lead-containing materials have been properly disposed.

1.4 Quality Assurance

Contractor(s) shall provide and assure that the quality of work practices and procedures are consistent with both OSHA and EPA requirements. Contractor(s) shall utilize the latest edition, including all addenda, revisions and supplements for all regulatory agencies, codes, etc.

1.5 Project Conditions

A. Shut down of Air Handling System: Complete the work of this section within the time allowed for shutdown of the air handling system serving the work area (standard operating procedure). **Please note that the stairwells in question only have heat and passive ventilation. Shut down is not required.**

B. Prevent lead containing dust from entering hard to clean areas within the dust containment area using poly sheeting, zipper doorways, etc. Items judged to be too difficult to protect may be disconnected, removed and replaced at the controlling contractor's option.

C. Cut and altar existing materials as required to perform the work. Limit cutting to the smallest amount necessary. Core drill round holes and saw cut other openings where possible for removal work.

1.6 Health & Safety

A. Where in the performance of their job duties, workers, supervisory personnel or sub-contractors may encounter, disturb, or otherwise function in the immediate vicinity of contaminated items and material. All personnel shall take appropriate continuous measures to protect themselves and all other building occupants from potential lead exposure.

1. Such measures shall include the procedures and methods described herein and shall be in compliance with all applicable regulations of federal, state and local agencies.

1.7 Emergency Egress/Fire Safety

A. Establish emergency and fire exits from the lead dust control

work area containment. Provide up to date first aid kits, at least one fully charged 2A:10B: C fire extinguisher and extra sets of protective clothing and respirator cartridges.

B. Provide a logbook throughout the entire term of the project. All persons who enter the regulated lead dust control work area or containment shall sign the logbook. Document any intrusion or incident in the log book.

1.8 Personal Protective Equipment (PPE)

A. Both supervisors and workers shall wear appropriate personal protective equipment. Such equipment, at a minimum, shall include: 1) disposable, coveralls with incorporated hood, 2) disposable booties, 3) eye protection, 4) disposable neoprene or nitrile gloves, 5) and disposable P-100 respirators. All PPE, including respiratory protection, shall be in accordance with 29 CFR 1910.132 - 1910.138 and the most current ANSI standards.

B. Workers must be trained per OSHA and EPA requirements, have medical clearance and must have recently received pulmonary function test (PFT) and respirator fit tested by a trained professional.[1]

[1] **Assuming respiratory protection devices are being used.**

Section 2.0 Products

2.1 Respirators

A. Type: Approved by the Mine Safety and Health Administration (MSHA), Department of Labor, or the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services.

2.2 General Equipment

A. Type: Vacuums equipped with new, certified HEPA filters.
B. Vacuums should be thoroughly cleaned/decontaminated with new pre-filter media installed prior to being brought on site.

2.3 Plastic Sheeting

A. Type: Minimum 6-mil, fire-retardant polyethylene.
B. Floor Protective Layer: Minimum 6-mil, fire-retardant, reinforced polyethylene.

2.4 Disposal Bags

A. Type: Minimum 3-mil thick, polyethylene bags designed/intended for construction and demolition (C&D) waste.

2.5 Encapsulants

A. Type: All Encapsulants used to stabilize, protect, and seal lead-containing painted surfaces shall meet all the requirements of the most recent ASTM E-1795 standard.

B. One of the following encapsulating products shall be used to stabilize & seal the painted surfaces in the stairwells called out in the **Attachment**: *LeadX Encapsulation Coating*; *ChildGuard Lead Encapsulant*; or, *Fiberlock Lead Barrier Compound*.

2.6 Equipment

A. Temporary lighting, heating, hot water heating units, ground fault interrupters, and all other equipment on site shall be UL listed and shall be safe, proper, and sufficient for the purpose intended.

B. All electrical equipment shall follow the National Electrical Code (NFPA 70), Article 590 - Temporary Wiring.

Section 3.0 Work Plan Execution

3.1 Work Site

- The target property – WL Morse Elementary School - is located at 30 Pocantico Street, Sleepy Hollow, NY. The structure has two distinct floor areas and lead-based paint was identified in three interior stairwells. Lead-related work activities are described below. All workers engaged in these activities shall have received training as described in Section 1.3 above.
  1. Surface Prep Work:
     - Manual scraping of loose, hanging, or unstable paint.
     - Patching or flattening horizontal or vertical surfaces.
  2. Surface Stabilization & Encapsulation:
     - Application of an approved encapsulant via brushing, rolling, or airless spraying.

3.2 Employee Protection

A. Work shall be performed in compliance with all applicable Occupational Safety and Health Administration (OSHA) standards, including any referenced standards. Such standards include PPE, ladder & scaffolding safety, fall protection, electrical safety and fire protection.

3.3 Lead-Containing/Coated Materials Handling & Disposal

A. Handle and dispose of lead-containing materials in accordance with OSHA 1926.62 and the approved lead-containing-material work plan. Use procedures and equipment required to limit occupational and environmental exposure to lead when material containing or coated with lead containing paint is handled and

disposed of in accordance with referenced standards.

3.4 Pre-Work Testing

A. Testing: Painted surfaces can be tested for lead content by qualified/certified individuals using one of the two methods below. **A lead inspection for WL Morse Elementary was conducted by certified technicians from QuES&T.**
   1. Paint chip analysis via atomic absorption spectroscopy (AAS) by a New York State Environmental Laboratory Accreditation Program (NYS ELAP) laboratory.
   2. Direct reading testing using a properly calibrated x-ray fluorescence (XRF) analyzer.

3.5 Work Area Prep

A. There are no air movement/ventilation systems in the stairwells to be shut down or protected prior to the commencement of work.
B. Signage, see below, shall be posted on all sides of the lead work area, defining such work area. Signage shall be in English and the primary language of the work crew and/or building occupants.
C. HEPA-vacuum and remove equipment/furnishings from the lead work area (omit if not applicable).
D. The floors shall be covered with 6-mil reinforced poly sheeting within 10 feet (if possible) in all directions of the area where painted surfaces are being disturbed. Poly sheeting shall be duct taped along the edges.
E. Windows and doors shall be closed & covered with a single layer of 6-mil poly sheeting and duct tape at the discretion of the controlling contractor.
F. Given the scope of work, vertical containment is not required.

3.6 Work Practices & Procedures

A. All personal protective equipment (PPE) as described in Section 1.8 shall be donned prior to the commencement of work activities.

B. The below-listed practices are prohibited in order to reduce the amount of dust and fumes generated during work activities.
1. Open flame burning or torching of painted surfaces.
2. The use of heat guns with a temperature output >1110^{o} Fahrenheit.
3. The use of devices (e.g. power sanders, grinders) designed to remove paint coatings from surface unless the devices are factory-equipped with an attached shroud/HEPA-vacuum system.

C. Building components that are being removed or temporarily relocated, shall be wrapped in a single layer of 6-mil poly as soon after removal as feasible.

D. Paint chips and associated debris generated by scrapping & prep should be HEPA-vacuumed from the poly sheeting regularly during the workday. Such cleaning need not be as thorough as the final cleaning but shall be conducted at minimum prior to lunch break and at the end of the work shift.

E. Prior to exiting beyond the poly sheeting in the work area, booties covering work shoes shall be removed. The use of near-by, disposable walk-off tack mats should be considered.

F. Workers shall practice proper lead hygiene. PPE shall be HEPA-vacuumed prior to removal before leaving the work

area. PPE shall be removed away from the skin and disposed of in waste receptables provided. All workers shall wash their hands and face with soap and water prior to leaving the job site.

3.7 Final Cleaning

A. Cleaning shall be performed top-to-bottom (as is applicable), cleaning all surfaces down to the flooring. Cleaning shall always begin as the far end of the work area.

B. Large paint chips and associated debris shall be picked up with wet disposable cloths and placed directly into waste receptacles (minimum 3-mil trash bags). Smaller debris shall be thoroughly cleaned by HEPA-vacuuming the poly sheeting throughout the entire work area.

C. The poly sheeting shall be misted with amended water and folded, top side in, onto itself and placed in a 3-mil waste bags. All waste bags shall be goosenecked, duct taped, and wet cleaned on the exterior prior to removal from the work area.

D. After removal of the poly sheeting clean the floor using a wet mopping system or two-sided bucket and mop. If the two-sided bucket system is used, repeat the procedure with a clean mop head, clean rinse water and freshly prepared cleaning solution.

E. Double check the work area prior to the inspection by the job supervisor.

3.8 Visual Inspection/Cleaning Verification

A. Following the final cleaning, a visual inspection shall be performed by the job supervisor.
B. The visual inspection shall be performed under adequate lighting, a minimum of two feet beyond the work are on all sides.
C. When cleaning verification has been completed by the supervisor, all warning signs may be removed.

Section 028733 – GUANO REMEDIATION; **DELETE** existing Section 028733 in its entirety, and **REPLACE** with new Section 028733, attached.

5

SECTION 028733 - GUANO REMEDIATION PROCEDURES

Section 1.0 Introduction

This bird, bat & rodent dropping remediation plan has been developed, by Quality Environmental Solutions & Technologies (QuES&T), for the attic storage area on the third floor of the Winfield L. Morse Elementary School in Sleepy Hollow, NY, to support the ***Public Schools of the Tarrytowns – 2024 Capital Bond Project - Phase 1***. The areas of concern are *crawl spaces* off Rooms 28 and 30 on the third floor. Total square footage of the contaminated attic spaces and quantity for bird, bat and rodent droppings is approx. 1,915 SF. The cleaning of this area is being done contingent to renovation work being conducted as part of a capital project. Due to the possible/likely presence of molds like Histoplasma and Cryptococcus in the droppings, cleanup of these spaces should be handled as mold remediation projects. The disturbance of these materials before and during clean up can result in airborne spores that are pathogenic to some individuals. The amount of material to be remediated far exceeds the 10 square feet required under Article 32 of NYS Labor Law to be considered a mold project.

1.1 References

A. New York State Department of Environmental Conservation (DEC): 6NYCRR Part 364.

B. New York State Labor Law, Article 32: Licensing of Mold Assessment and Remediation Specialists and Minimum Work Standards.

C. New York City Department of Health, Bureau of Environmental & Occupational Disease Epidemiology: Guidelines on Assessment and Remediation of Fungi in indoor environments.

D. Occupational Safety and Health Administration (OSHA):
   1. Respiratory Protection, Title 29, Part 1910, Section 134 of the Code of Federal Regulations.
   2. Construction Industry, Title 29, Part 1926, of the Code of Federal Regulations.
   3. Hazard Communication, Title 29, Part 1910, Section 1200 of the Code of Federal Regulations.
   4. Specifications for Accident Prevention Signs and Tags, Title 29, Part 1910, Section 145 of the Code of Federal Regulations.

E. Center for Disease Control (CDC): Air Pollution and Respiratory Health -Prevention and remediation strategies for the Control and Prevention of Fungal Growth.

F. Center for Disease Control (CDC): Histoplasmosis – Protecting Workers at Risk.

G. National Institute for Occupational Safety and Health (NIOSH): publication 2005-109: Histoplasmosis-Protecting Workers at Risk.

H. The Internet Center for Wildlife Damage Management: Bat Guano & Bat Feces cleanup.

1.2 Definitions

A. Abatement/Remediation/Removal: The process or procedure for removing and controlling the biological release and/or dispersion of microbial agents.

B. Adequately Wetted: Sufficiently wet, mixed, or coated with a detergent solution to

prevent biological and dust dispersion during the movement of contaminated items and debris.

C. Air Filtration Unit (AFU): Local exhaust HEPA equipped air filtration unit capable of maintaining a negative pressure inside the work area and a constant air flow from adjacent areas into the work area exhausting clean filtered air outside the work zone. All HEPA filtration units shall comply with ANSI Z9.2.

D. Air Sampling: The process of measuring inside biological contamination and outside ambient conditions.

E. Authorized Personnel: Facility or the Director's Representative, and all other personnel who are authorized officials of any regulating agency, be it State, Local, Federal or Private entity who possess legal authority for enforcement or inspection of the remediation work.

F. Isolation Barrier: Any surface which seals off the work area to inhibit the movement of biological agents and contamination.

G. CIH: Certified Industrial Hygienist, certified by the American Board of Industrial Hygiene.

Clearance Criteria: Shall be determined and established by an independent Industrial Hygienist hired by the Director's Representative, conforming to all standards set forth by all authorities having jurisdiction, mentioned in the references, and issue the certification of cleaning.

H. Containment: The negative-pressurized enclosure within the building which establishes a contaminated area and surrounds the location where remediation is taking place.

I. Construction Barrier: Used for construction separation only.
1. Does not prevent movement of infectious biological contaminants.
2. Construction: 1/2 inch plywood and 2" x 4" studding spaced no greater than 24" o/c.
3. Doorways (minimum): 3 ft. x 6 ft - 8 inches (min), installed where required for ingress and egress.
4. Lock: Installed to secure the area when the Contractor is not on site.

J. Remediation Contractor: Contractor or subcontractor who has demonstrated 3 years previous experience in the clean-up of regulated chemical or physical substances, proficient in environmental remediation and the clean-up of contaminated debris and/or infectious biological agents.

K. Critical Barrier: Two layers of 6 mil, fire retardant, polyethylene sheeting adhered in such a fashion that each layer is individually visible, and completely seals off the work area to prevent the distribution of infectious biological agents into the surrounding areas that are not part of the work area.

L. Decontamination Unit: A serial arrangement of rooms or spaces for the purpose of separating the work area from the building environment. This unit provides for entering the work site, returning to the clean environment, cleaning of persons, equipment, and movement of properly contained waste material.

M. Disposal Bag: A minimum 6 mil thick, polyethylene leak tight plastic bag used for packaging and transporting debris and biological waste from the work area to a disposal site.

N. Fixed Object: Mechanical equipment, electrical equipment, fire detection systems, alarms, and all other fixed equipment, furniture, fixtures or other items which cannot be removed from the work area.

O. HEPA: High Efficiency Particulate Absolute filtration efficiency of 99.97% down to 0.3 microns. Filtration provided on specialized vacuums and air filtration devices to trap particles and infectious agents.

P. Moveable Object: Equipment, furniture or other items in the work area which can be removed from the work area.

Q. Negative Pressure Ventilation System: A system established for the work zone utilizing Air filtration Unit(s) capable of maintaining a negative pressure inside the work area and which creates a constant air flow from adjacent areas into the work area and exhausts clean filtered air outside the work zone.
1. Maintains minimum of one complete air change every 15 minutes and 0.02 inches of water column pressure differential from the surrounding area at a minimum.

R. PPE: Personal Protective Equipment

S. Respirator: Device designed to protect the wearer from the inhalation of harmful respirable dust, fumes, mists and infectious biological agents.

T. Visible Emissions: Emissions containing particulate materials that are visually detectable without the aid of instrumentation or special lighting.

U. Wet Cleaning: The process of eliminating biological contamination from building surfaces and objects by using cloths, mops, or other cleaning devices which have been dampened with detergent solution.

1.3 Submittals

A. Product Data: Catalog sheets, specifications and installation instructions for all chemicals intended for use (e.g. disinfectants, biocides).

B. Quality Control Submittals:
1. Worker Qualifications: The persons removing contaminated material and their supervisors shall be personally experienced & certified in this type of work and shall have been employed by a company with a minimum of one year experience in this type of work.
2. Remediation Work Plan: Submit one copy of the work plan required under Quality Assurance Article.
3. Waste Transporter Permit: One copy of transporter's current waste transporter permit from NYS DEC.
4. SDS sheets for detergents, disinfectants and/or biocides, and chemicals to be used during the project.

C. Assessment Company Qualification Data:
1. Name of Assessment Company, business address and telephone number.
2. Number of years in business.
3. Number of years performing mold assessments.
4. Names, addresses and contact phone numbers of five projects of similar size and complexity in which contractor has performed bird, bat, and rodent dropping remediation work in the last 3 years.

D. Remediation Company Qualification Data:
1. Name of Remediation Company, business address and telephone number.
2. Number of years in business.
3. Number of years performing bird, bat, and rodent dropping remediation (or similar remediation).
4. Names, addresses and contact phone numbers of five projects of similar size and complexity in which contractor has performed bird, bat, and rodent dropping or similar remediation work in the last 3 years.

E. Remediation Worker's Qualifications Data:
1. Name of each person who will be performing the work and their employer's name, business address and telephone number.
2. Copy of recent pulmonary function testing (PFT) and respiratory fit testing.

F. Operation and Maintenance Data: Submit air filtration unit operation and maintenance data and manufacturer's catalog sheets for the HEPA filter. Provide an affidavit stating that the HEPA filters being used are functioning as intended and that all pre-filter media was installed new prior to air scrubbers being brought on site.

G. Contract Closeout Submittals:
1. Disposal Site Receipts: Copy of each receipt showing that the waste containing materials have been properly disposed.
2. Copy of Daily Project Log.
3. Remediation Plan: Submit copy of report compiled by an experienced Industrial Hygienist who is a certified Mold Assessor.
4. Air Monitoring Data: Submit copy of air test results (if collected) and chain of custody if requested.
5. Tape/Swab/Bulk Sampling Data: Submit copy of source sampling results (if taken) and chain of custody if requested.

1.4 Quality Assurance

A. Regulatory Requirements: Comply with the referenced standards and all applicable Federal, State and Local regulatory requirements.

B. Pre-Work Conference:
1. Before the work of this Section is scheduled to begin, a conference will be held by the site rep for contract review, work procedures, and site safety
2. The conference shall be attended by the Contractor and any subcontractors.
3. Other participants may be invited at the discretion of the site rep.

C. Work Plan: Prior to the pre-work conference and before the physical Work begins, prepare a detailed Remediation Work Plan. The Work Plan must be based upon the Remediation Plan developed by the assessor. The Work Plan shall include, but not be limited

to, work procedures, types of equipment, crew size, negative pressure containment and decontamination unit details, locations and emergency procedures for fire and medical emergencies and contingencies for the failure of containment. The work plan will be discussed at the pre-work conference.

D. Remediation Contractor Qualifications: The firm performing the work of this section shall have been regularly engaged in bird, bat, and rodent dropping remediation (or similar) work for a minimum of one year.

E. Remediation Worker Qualifications: The persons performing the work of this section and their supervisors shall be personally experienced and certified in this type of work for a minimum of one year, and have received pulmonary function testing (PFT) and respiratory fit testing per 29 CFR 1910.134.

F. Testing Lab Qualifications: The proposed testing lab shall be New York State Department of Health Environmental Laboratory Approval Program (NYS ELAP) certified.

1.5 Project Conditions

A. Post the following documents at the entrance to the abatement area:
1. Copy of the printed Remediation Work Plan.
2. Warning signs and/or tape.

B. Shut Down of Air Handling System:
1. Complete the work of this section within the time limitation allowed for shut-down of the air handling system serving the work area.
2. The air handling system will not be restarted until the final clearance inspection.

C. Electric services to those portions of the building and facility shall be maintained at all times.

D. Remove or encase all equipment in the work area with two layers of six mil fire retardant polyethylene sheeting.

E. No aisle or passageway shall be obstructed so as to reduce its required width as an exit, per the Fire Code of NYS.

1.6 Delivery & Storage

A. Deliver cleaning and disinfection/biocidal materials in manufacturer's original sealed and labeled containers.

B. Do not deliver products which have exceeded their shelf life, are in open or damaged containers or cartons, or are not properly labeled as specified.

C. Store cleaning and disinfection/biocidal materials in compliance with the manufacturer's printed instructions.

1.7 Health & Safety

A. Where in the performance of the work, workers, supervisory personnel or sub-contractors may encounter, disturb, or otherwise function in the immediate vicinity of

contaminated items and materials, all personnel shall take appropriate continuous measures as necessary to protect all ancillary building occupants from the potential biological hazard of exposure to potential infectious agents.

B. Such measures shall include the procedures and methods described herein and shall comply with all applicable regulations of Federal, State and Local agencies.

1.8 Fire Protection & Emergency Egress

A. Establish remote emergency and fire exits from the work area containment. Provide up to date first aid kits and extra sets of protective clothing and respirators cartridges.

B. Maintain daily project logbook throughout the entire term of the project.
1. All persons who enter the work area or containment shall sign the logbook.
2. Document any intrusion or incident in the logbook.

Section 2.0 Work Locations

The work locations, as outlined above, are the *crawl spaces* off Rooms 28 and 30 on the third floor (see attached ASB-05). As discussed below, the removal of gross contamination will be followed by removal from wood structural components, biocide application(s) and final encapsulation**. Encapsulation of wood structural components shall only be performed pursuant to consultation with QuES&T**.

2.1 Air Filtration Unit

A. Air Filtration Units: Comply with ANSI Z9.2, Local Exhaust Ventilation.
1. Final Filter: HEPA type.
2. HEPA Filter Efficiency: Minimum efficiency of 99.97 percent when challenged with 0.3 micron particles.
3. Filter Identification: Marked with the name of the manufacturer, model number, air flow rating, efficiency and resistance, and the direction of air flow.
4. Pre-filter media shall have been replaced prior to units being brought on site.
5. Dispose of used filters as construction & demolition waste.

B. Equip the system with the following:
1. Automatic Shutdown: Stops the fan in the event of a rupture in the HEPA filter or blocked air discharge.
2. Warning Lights and/or Alarms: Indicate an excessive pressure drop across the filters or an insufficient pressure drop across the filters.
3. Non-Resettable Elapsed Time Meter: Indicate the total accumulated hours of operation. Shall include a gage or manometer.

2.2 Disposal Waste Bags

A. Type: Clear, minimum 6 mil thick polyethylene, preprinted with a caution label. Properly drum/containerize bags for disposal.

2.3 Equipment

A. Temporary lighting, heating, hot water heating units, ground fault interrupters (GFCIs), and all other equipment on site shall be UL listed and shall be safe, proper,

and sufficient for the purpose intended.

B. All electrical equipment shall be in compliance with the National Electric Code, Article 590 - Temporary Wiring.

Section 3.0 Laboratory Results

Article 32 of New York State Labor Law (the 'Mold Law') does not require that any sampling be performed as part of a mold assessment. Nor is it recommended under the New York City or USEPA guidelines for mold. To date, QuES&T has collected no source or air samples for fungal contamination.

Section 4.0 Materials/Surfaces to be Remediated

Based upon our inspection, there are multiple surfaces, materials, or contents within the above referenced spaces should be remediated in accordance with current industry guidelines, including but not limited to the *New York City Department of Mental Health and Hygiene publication "Guidelines on Assessment and Remediation of Fungi in Indoor Environments"* and the *Cleaning and Restoration Institutes Publications "IICRC S520 "Standard and Reference Guide for Professional Mold Remediation".*

During our inspection we noted accumulated guano and droppings from birds, bats and rodents in the crawl spaces. The contamination was much heavier in the crawl space off Room 30. Gross debris will need to be cleaned up first via the use of hand tools. Pursuant to gross removal, any residual droppings that may contain mold pathogens will need to be removed from wood structural members via sanding, wire brushing, ice blasting, or similarly effective methods.

Section 5.0 Remediation Methods

The organisms of concern, Cryptococcus (fungi), Histoplasma (fungi) & Psittacosis (bacteria) are frequently found in bird, bat, and rodent droppings. The third-floor crawl spaces are contaminated with such droppings (referred to going forward as the work area). These materials should be treated throughout the remediation process as though they are pathogen-containing. Damage caused during the remediation process shall be restored to its original condition.

Gross Removal – Crawl Spaces

The following methods of remediation are recommended for the area and level of remediation.

- Prior to the start of the remediation the building owner/operator shall meet with the contractor to determine if there are any items in the work area that they owner would like to save/retrieve. If so, each item shall be wet-clean/HEPA-vacuumed prior to removal from the work area.
- HVAC systems, if any, shall be shut down prior to the start of remediation activities.
- Prior to the start of work, the work area(s) shall be isolated from the remainder of the building. Zippered doorways shall be installed on the entry doors to Rooms 30 and 32. Drop cloths, 6 feet deep and 12 feet wide, will be adhered to each classroom floor outside the small entry doors into the crawl spaces. The drop cloths shall be made of two layers of 6-mil, reinforced poly sheeting duct taped or poly taped to the floor outside the crawl space doors. Building occupants shall be notified as outline in Section 8.0.
- If needed, hard wall barriers shall be constructed from a minimum of 18-gauge metal studs and fire Rated CDX plywood.
- Standard tools like shovels, dust pans, trowels and floor scrapers shall be used during the gross phase of the remediation. All tools shall be easily cleanable and contain no wooden

components. All tools used during gross removal shall be cleaned and disinfected at least twice per work shift.

- Prior to the start of remediation activities, a minimum of two 1,500 cfm HEPA-equipped air scrubbers shall be installed in the work area (one each inside Rooms 30 & 32). A minimum of 500 cfm HEPA-equipped air scrubbers shall be installed inside the crawl space areas off each of the above-referenced rooms. The air scrubbers will preferably be equipped with lay-flat or corrugated hose attached to exhaust air outside the building. If they cannot be exhausted, the HEPA units can be used as air scrubbers throughout the remediation. Prior to being brought on site, all pre-filters on the air scrubbers intake sides shall be replaced with clean filter media. All entry and exit shall be through a single pathway/exit as designated by the building owner/operator.
- Prior to removal through the designated exit, all waste materials shall be bagged in 6-mil waste bags or wrapped in 6-mil poly sheeting. All bags and wrapped waste materials shall be wiped down with a damp cloth and/or HEPA-vacuumed prior to removal from the work area.
- Following the gross removal of all moldy materials, the first layer of poly drop cloth on the floor shall be HEPA-vacuumed and folded in upon itself and immediately placed in bags for removal and disposal. All waste removal shall be through the designated exit.

Wood Structural Components – Crawl Spaces

The following methods of remediation are recommended for the area and level of remediation.

- HEPA-equipped air scrubbers shall be left running in the work area during this phase of the remediation.
- Where there is evidence of contamination on wooden components, such contamination shall be removed via sanding, wire brushing, ice blasting or equally effective method.
- Any power tools used during this phase of remediation shall be equipped with factory installed HEPA filtration.
- All tools shall be easily cleanable and contain no wooden components. All tools used during gross removal shall be cleaned and disinfected at least twice per work shift.
- Any debris shall be bagged in 6-mil waste bags and removed from the work area in the same manner as above.

Final Cleaning & Disinfection – Crawl Spaces

The following methods of remediation are recommended for the area and level of remediation.

- HEPA-equipped air scrubbers shall be left running in the work area during this phase of the remediation.
- All surfaces within the crawl spaces shall be HEPA-vacuumed following the removal of all construction & demolition debris. The same surfaces shall then be lightly misted with a disinfectant cleaner, biocide, or equally effective product.
- Safety Data Sheets (SDSs) shall be on site throughout the application process.
- Any application of an encapsulant on surfaces shall be performed after the final visual clearance and in consultation with the building owner.
- Following this phase, the base layer of drop cloth on the floor shall be HEPA-vacuumed and folded in upon itself and immediately placed in bags for removal and disposal.
- The floors in Rooms 30 & 32 shall be damp mopped with a disinfectant cleaner.

Based on the current industry guidelines, the areas to be remediated may exceed the ten square foot threshold as described in the NYC guidelines and should be considered a medium to large sized isolated area project. Remediation work techniques should conform with generally accepted industry work practices as outlined in current industry guidelines such as *The New York City*

Department of Health "Guidelines on Assessment and Remediation of Fungi in Indoor Environments" and IICRC S520 "Standard and Reference Guide for Professional Mold Remediation".

Properly trained and equipped mold remediation workers should conduct the remediation. The presence of a trained building or environmental health professional to provide oversight during remediation may be helpful to ensure quality work and compliance with the work plan. The following procedures are recommended:

(a) Personnel trained in the handling of mold-damaged materials equipped with:

i. A minimum of half-face elastomeric respirators with P-100 filters used in accordance with the OSHA respiratory protection standard (29 CFR1910.134)
ii. Gloves and eye protection

(b) Containment of the affected area:

i. Isolation of the work area should include plastic sheeting sealed with duct tape. Any openings should also be sealed with plastic sheeting and duct tape. The stainless-steel storage racks should be thoroughly cleaned prior to removal from the work area.

ii. Consider using an exhaust fan equipped with a HEPA filter to generate negative pressurization.

iii. Consider using airlocks and a clean changing room.

iv. Egress pathways should also be covered if a clean changing room is not used.

v. The work area should be unoccupied.

(d) Efforts should be made to reduce dust generation. Dust suppression methods particularly during any cutting or resurfacing of materials are highly recommended. Methods to consider include: cleaning or gently misting surfaces with a dilute soap or detergent solution prior to removal; the use of High-Efficiency Particulate Air (HEPA) vacuum-shrouded tools; or using a vacuum equipped with a HEPA filter at the point of dust generation. Work practices that create excessive dust should be avoided.

(e) If there are materials that cannot be cleaned they should be removed from the work area in sealed plastic bags. The outside of the bags should be cleaned with a damp cloth and a soap or detergent solution or HEPA-vacuumed in the work area (or clean changing room) prior to their transport to unaffected areas of the building. There are no special requirements for the disposal of moldy materials.

(f) Before leaving isolated areas, workers should remove disposable clothing to prevent the tracking of mold-containing dusts outside of the work area.

(g) The work area and egress pathways (and clean changing room if present) should be HEPA-vacuumed and cleaned with a damp cloth and/or mop with a soap or detergent solution and be visibly clean prior to the removal of isolation barriers. Plastic sheeting should be discarded after use.

(h) All areas should be left dry and visibly free from mold, dust, and debris. Check that other quality assurance indicators (see Quality Insurance Indicators) have also been met.

Section 6.0 PPE

Personal protective equipment is also discussed in the section above. All persons entering the established work area shall at a minimum don the following personal protective equipment:

i. A minimum of half-face elastomeric respirators with P-100 filters used in accordance with the OSHA respiratory protection standard (29 CFR 1910.134)
ii. Disposable paper coveralls with incorporated hoods and booties
iii. Gloves (nitrile or neoprene) and appropriate eye protection (Goggles)

The recommended PPE should be considered as the minimum level of protection. Additional factors including, but not limited to: 1) use of chemicals, 2) remediation methods, 3) confined spaces, etc. may require additional PPE. A job hazard analysis should be conducted once the specific means and methods are established by the contractor to identify and evaluate any additional hazards that may be present at the worksite.

Section 7.0 Clearance Criteria

Currently, no regulatory or health-based standard exists for indoor levels of microbiological contaminants.

A health-based numerical standard for acceptable exposure to microbial contaminants is not feasible for a variety of reasons. Microbial contaminants in air as well as dust are ubiquitous throughout the environment and are composed of fungal spores, fragments of fungi, bacteria, (toxic) complex organic compounds, as well as fragments and feces of insects and similar organisms. In addition, human responses to microbial contaminants vary over a tremendous range, and it is not possible to sample and analyze all possible microbial contaminants by a single method.

Therefore, clearance for this project shall be conducted by **the performance of a detailed visual inspection of the work area.** In lieu of a site visit we can discuss the review of detailed photos, before and after, by a New York State Licensed Mold Assessment Professional. The visual inspection shall be performed after the final cleaning of the work area has been conducted with sufficient time for drying of the remediated areas. Visual clearance of the area shall be conducted as outlined in Section 3.4 of the American Industrial Hygiene Association (AIHA) publication "Assessment, Remediation and Post-Remediation Verifications of Mold in Buildings."

Section 8.0 Occupant Notification and Postings

In order to ensure that any occupants of the building are provided with appropriate information about the remediation project to be conducted, the contractor & client shall agree to a remediation date at least seven calendar days prior to the commencement of work. In addition, the contractor shall post the entry doors to Rooms 30 & 32 three days prior to the remediation start date that includes all the information listed below.

- Commencement and completion dates
- Building, structure and room location(s) or area(s) designation for the remediation project
- The amount of material being remediated
- The name, address and phone number of the remediation contractor
- The name, address and phone number of the building owner
- SDS sheets for all chemicals and cleaners used on the project shall be available for review by the building and/or occupants.

Prior to commencement of the project, the remediation contractor shall post warning signs and barrier tape to provide adequate warning to persons in order that they may take appropriate actions to protect themselves. Signs and barrier tape shall comply with the following.

1. Danger signs shall be provided and shall be 14" x 20". These signs shall bear the following information:

ACCESS RESTRICTED TO

AUTHORIZED PERSONNEL ONLY

RESPIRATORS AND PROTECTIVE

CLOTHING

ARE REQUIRED IN THIS AREA

   Signs shall be posted at the entrance to all established regulated work areas. Additional signage as required by Federal, State and Local regulations shall also be posted.

2. Provide 3" yellow barrier tape printed with black lettered "DANGER CONSTRUCTION AREA". Locate barrier tape across all corridors, entrances and access routes to active microbiological remediation areas.

Signs, barrier tape and any other warnings shall be posted prior to the commencement of the project and shall remain until the completion of the project.

Section 9.0 Cost Estimate and Duration

Based upon the information obtained, the estimated time for the completion of this project is four-to-five working days. This includes time for breakdown. The estimated cost for the remediation project is $25,000 to $30,000. **Hidden contamination and other factors may be encountered during the remediation project, which may require modifications to the work schedule and cost estimate.** This is contingent upon the building owner emptying the work areas of items/furnishings prior to the remediation work being performed. In addition, the remediation contractor shall not be responsible for cleaning furnishings beyond the scope of the remediation.

Section 10.0 Infestation Identification and Correction

Information obtained during the assessment and review process appears to indicate that roosting of birds, bats and infestation of rodents is responsible for the waste droppings that likely contain fungal pathogens such as Cryptococcus and Histoplasma. We witnessed birds roosting on top of the library on the day of our inspection. The planned renovations should take into account means of preventing such infestation in the future. If living birds, bats or rodents are encountered during the remediation process they shall be humanely removed from the work area.

QuES&T

Quality Environmental Solutions & Technologies, Inc.

PRE-CONSTRUCTION ENVIRONMENTAL SURVEY REPORT
FOR
ASBESTOS-CONTAINING MATERIALS (ACM)
LEAD-BASED PAINTS (LBP)
POLYCHLORINATED BIPHENYL (PCB)

Prepared for:

UNION FREE SCHOOL DISTRICT OF THE TARRYTOWNS
200 North Broadway,
Sleepy Hollow, NY 10591

at

W.L MORSE ELEMENTARY SCHOOL
30 Pocantico Street,
Sleepy Hollow, NY 10591

Original Report: July 9, 2024
Updated Report: December 19, 2024

QuES&T Project #246101

1376 Route 9, Wappingers Falls, NY 12590 Phone (845) 298-6031 Fax (845) 298-6251
NYS MWBD MBE Cert # 49952-2006 NYSUCP DBE Certified NJUCP DBE Certified www.Qualityenv.com

QuES&T

Quality Environmental Solutions & Technologies, Inc.

December 19, 2024

Union Free School District of the Tarrytowns
200 North Broadway,
Sleepy Hollow, NY 10591

ATTN: Brian Fried

Via E-mail: bfried@tufsd.org

Re: W. L. Morse Elementary School
Pre-Construction Environmental Survey
QuES&T Project #24-6101

Dear Mr. Fried,

Attached is the Pre-Construction Inspection Report for Asbestos-containing Materials (ACM), Lead-Based Paints (LBP), and Polychlorinated Biphenyls (PCB) identified throughout areas included within the above-referenced location(s) by **Qu**ality **E**nvironmental **S**olutions **& T**echnologies, Inc. **(QuES&T)**. The inspection included visual assessment of the location in question, and representative sampling, as required, in compliance with the requirements of all applicable federal, state, and local regulations.

The attached report summarizes the inspection protocol and inspection results for your review. **QuES&T** believes this report accurately reflects the material condition existing in the functional spaces at the time of our inspection.

Should you wish to discuss this matter further or require additional information concerning this submittal, please contact us at (845) 298-6031. **QuES&T** appreciates the opportunity to assist the Union Free School District of the Tarrytowns in the environmental services area.

Sincerely,

Zachary Timpano
Technical Services
NYS/AHERA Inspector
Cert # 24-61PEY-SHAB
NYS Licensed Mold Assessor # 24-63EYB-SHMO
EPA Lead Risk Assessor / Inspector Cert# LBP-R/I-I252793-1

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EXECUTIVE SUMMARY

Quality **E**nvironmental **S**olutions & **T**echnologies, Inc. (**QuES&T**) was retained by the Union Free School District of the Tarrytowns to conduct a Pre-Construction Environmental Survey for the presence of Asbestos-containing Materials (ACM), Lead-based Paints (LBP), and Polychlorinated Biphenyls (PCB) in support of the 2024 Capital Bond Project – Phase 1, at W.L. Morse Elementary School located at 30 Pocantico Street, Sleepy Hollow, NY 10591.

The survey included a visual inspection/assessment for suspect hazardous material(s), as detailed above, which are likely to be affected by planned demolition/renovations/construction activities. Inspection and sampling were limited to areas/materials slated for demolition/renovation/construction, as detailed in drawings, dated April 1, 2024, by MEMASI.

The survey was conducted by **QuES&T** personnel on June 13th, 2024, and October 14th, 2024, with additional sampling taking place on October 14 and December 9, 2024. Asbestos and PCB inspections and/or sampling was conducted by NYSDOL Asbestos Inspector(s)/IH Technicians Shannon D. Talsma (Cert. #AH 24-61PEC-SHAB), Zachary Timpano (Cert. #AH 23/24-61PEY-SHAB), Jonathan R. Mages (Cert. #AH 24-6IEZ8-SHAB), Dillon T. Stamper (Cert. #AH 24-6LUH4-SHAB), and Jessica E. Lopez (Cert. #AH 24-6AJ9Y-SHAB) The lead survey was conducted by Certified XRF Technician Jessica E. Lopez utilizing X-Ray Fluorescence Technology (XRF).

ASBESTOS

Laboratory analysis and/or existing sampling data indicated the following materials as Asbestos-containing Materials (greater than 1% asbestos) **(Refer to Table I & Appendix A for details and locations)**

W.L. Morse Elementary School

Asbestos Containing Materials (ACM)

- Sub-Basement, Boiler Room, On Boiler Sections – Rope Gasket
- Basement, Fan Room, on Metal Pipe – TSI & Fittings
- Basement, Boy's Locker Room, Wall, on CMU – ACM Grout and Adhesive on Non-ACM Wall Tile
- First Floor, Lobby 100, Corridor A & Stair C Corridor, Corridor B, Stair B Landing, Corridor C & Stair D & E Corridors, Classrooms 10, 11, 12, 13, 13A, 14, 15, 16, 17, 18, Principal 15 & Server 15A, Vestibule to Storage Room 109B, Second Floor, Lobby 200 and Stair A Top Landing, Corridor A & Stair C Corridor, Corridor B, Corridor C & Stair D & E Corridors, Classrooms 20, 22, 24, and Speech Room 22B, Third Floor, Social Worker/Library 31A, Art Room 31 & Storage, Stair B Corridor, Math Specialists/ENL Room 30, Music Room 30, ENL Classroom 35 Door Threshold, GR 2 Classroom 39 Door Threshold, Floors – ACM Floor Tile & Mastic

Presumed Asbestos Containing Materials (PACM)

- Sub-Basement, Boiler Room - Boiler Interiors
- Bathrooms, Wet Walls and Ceilings – TSI and Associated Fittings
- Basement, Custodial Office 009 – Sub Slab Vapor Barrier
- Exterior – Foundation Waterproofing Tar

LEAD

Based on review of the data generated by the Niton XLp-300A XRF Spectrum Analyzer, the following surfaces within the scope of work were identified as lead-based as defined by HUD/EPA (equal to or in excess of 1.0 milligram per square centimeter) (**Refer to Table II & Appendix B for details**):

W.L. Morse Elementary School

- Boiler Room, Wall, CMU – White LBP
- Electrical Panel Room, Door and Door Frame, Wood – Grey and White LBP
- Bathroom, Wall, Wood Panel & Metal Bars – Beige LBP
- Electrical Panel Room, Wall, Brick – White LBP
- Electrical Panel Room, Pipe, Metal – White LBP
- Electrical Panel Room, Window, Frame, Wood – White LBP
- Boiler Room Hallway, Wall, CMU – White LBP
- Cafeteria Hallway, Wall, Upper, Wood – White LBP
- Gym, Wall, Wood – White LBP
- Stairwell to Gym, Stair, Railing, Metal – Brown LBP
- Stairwell to Gym – Upper, Wall, Wood Panel – White LBP
- Stairwell to 2nd, Stair, Railing, Metal – Brown LBP
- Classroom 16, Wall, Whiteboard Wall, Wood – White LBP
- Boy's Bathroom, Wall, Plaster – Beige LBP

It should be noted that several components tested did in fact contain minimal lead-levels below the EPA threshold level of 1.0 mg/sq. cm for classification as Lead-Based Paint (LBP) and are considered lead-containing coatings by the OSHA Regulation, "Lead Exposure in Construction" (29 CFR 1926.62). OSHA does not recognize a minimum limit for lead concentrations in paint for the purposes of disturbance. Monitoring of workers performing demolition/cleaning/disturbance of painted surfaces shall be completed to document personnel occupational exposure. Items containing any amount of lead concentration are considered lead-containing coatings per 29 CFR 1926.62, OSHA Lead Exposure in Construction.

PCB

Materials are considered to be hazardous if they contain equal to or greater than fifty (50) parts per million (ppm) of PCBs based on a sum of all Aroclor. Laboratory analysis indicates that the following materials are hazardous based on PCB concentrations of equal to or greater than 50 ppm.

W.L. Morse Elementary School

- None Detected

1.0 INTRODUCTION:

Quality **E**nvironmental **S**olutions **& T**echnologies, Inc. **(QuES&T)** performed a Pre-Construction Environmental Survey for the presence of Asbestos-containing Materials (ACM), Lead-based Paint (LBP), and Polychlorinated Biphenyls (PCB) in conformance with the requirements of all applicable federal, state, and local regulations. The survey included a visual inspection/assessment, and representative sampling of suspect hazardous materials, as required, throughout accessible interior and exterior locations to be affected by future renovations of W. L. Morse Elementary School, located at 30 Pocantico Street, Sleepy Hollow NY 10591.

Certified **QuES&T** personnel, Shannon D. Talsma, Zachary Timpano, Jonathan R. Mages, Dillon T. Stamper, and Jessica E. Lopez conducted field inspection(s) on June 13th, 2024, and October 14th, 2024. The inspection scope was established based on review of work scope drawings provided by MEMASI.

QuES&T established functional spaces based either on physical barriers (i.e., walls, doors, etc.) or homogeneity of material. Within each functional space identified, a visual inspection was performed using reasonable care and judgment, to identify and assess location, quantity, friability, and/or condition, as applicable, of all accessible installed building materials observed at the affected portion of the building/structure.

Limited localized demolition of building surfaces was performed, as part of this survey, to access concealed surfaces. No disassembly of installed equipment was conducted as part of this inspection. ACM, LBP and/or PCBs concealed within structural components and equipment interiors or that is accessible only through extensive mechanical or structural demolition may not have been identified as part of this survey.

Homogenous material types were established based on appearance, color, and texture. The findings presented in this report are based upon reasonably available information and observed site conditions at the time the assessment was performed. The findings and conclusions of this report are not meant to be indicative of future conditions at the site and does not warrant against conditions that were not evident from visual observations or historical information obtained from others.

2.0 ASBESTOS SURVEY:

2.1 INSPECTION SUMMARY

QuES&T performed a Pre-Construction Environmental Survey, in conformance with Title 12 NYCRR Part 56-5.1, for the Union Free School District of the Tarrytown's in support of the Construction Project at W. L. Morse Elementary School, located at 30 Pocantico Street, Sleepy Hollow, NY 10591. The survey included a visual inspection / assessment for Presumed Asbestos-containing Materials (PACM) and suspect miscellaneous Asbestos-containing Materials (ACM) throughout accessible interior and exterior locations to be affected by future renovations, as detailed above. Results and findings from previous inspections conducted by **QuES&T** were utilized in this inspection.

Limited localized demolition of building surfaces was performed, as part of this survey, to access concealed surfaces. No disassembly of installed equipment was conducted as part of this inspection. ACM concealed within structural components and equipment interiors or that is accessible only through extensive mechanical or structural demolition may not have been identified as part of this survey. When any construction activity, such as demolition, remodeling, renovation, or repair work, reveals PACM or suspect miscellaneous ACM that has not been identified, as part of this survey, all construction activities shall cease in the affected area.

The survey included both visual inspection of accessible spaces and representative sampling of suspect building materials for ACM. Samples collected were analyzed by a laboratory approved under the New York State Department of Health Environmental Laboratory Approval Program (NYSDOH ELAP). Samples were analyzed in the laboratory by Polarized Light Microscopy (PLM), Polarized Light Microscopy-NOB (PLM-NOB) and/or Quantitative Transmission Electron Microscopy (QTEM), as required. Sample collection and laboratory analysis were conducted in compliance with the requirements of Title 12 NYCRR Part 56-5.1, 29 CFR 1926.1101 and standard EPA & OSHA accepted methods. Samples consisting of multiple layers were separated and analyzed independently in the laboratory.

2.2 SAMPLE COLLECTION & ANALYTICAL PROCEDURES

Representative bulk sampling was performed on suspect building materials for laboratory analysis using PLM, PLM-NOB, and/or QTEM. The following is a summary of installed building materials sampled:

- Wall Materials – Plaster (various), Ceramic Tile (various), Grout (various), Mortar (various), Brick, Sheetrock, Cove Base Molding, Adhesive (various).
- Ceiling Materials – Plaster (various), Ceiling Tiles (various).
- Flooring Materials – Ceramic Tile, Grout, Mudset, Concrete Slab, Fiberboard, Concrete, Epoxy, Sheet Floor, Floor Tile (various), Mastic (various).
- Thermal System Insulation Materials (TSI) – Spray-on-Fireproofing, TSI, Mudded Joint Packing, Insulation (various), Packing, Rope Gasket, Cementitious Packing (On Boiler Sections).
- Roofing Materials – Shingle, EPDM, ISO Insulation, Tar Paper Vapor Barrier, Concrete Deck, Built Up Roofing, Fiber Board, Rolled Roofing, Tar.
- Miscellaneous Materials – Fire Stop Caulk, Caulk.

Certified **QuES&T** personnel (Appendix C), Shannon D. Talsma (Cert. #AH 24-61PEC-SHAB), Zachary Timpano (Cert. #AH 23-61PEY-SHAB), Jonathan R. Mages (Cert. #AH 24-6IEZ8-SHAB), and Dillon T. Stamper (Cert. #AH 24-6LUH4-SHAB) performed visual assessments throughout interior and exterior construction areas. A total of two hundred twenty four **(224)** samples/layers of installed and accessible suspect building materials were analyzed by a laboratory approved under the NYSDOH ELAP. One hundred twelve (112) samples/layers were analyzed using Polarized Light Microscopy (PLM) for friable materials; sixty two (62) samples/layers were analyzed using Polarized Light Microscopy (PLM-NOB) for non-friable organically bound materials; and fifty (50) samples/layers were analyzed by Confirmatory-QTEM following negative-determinations using PLM-NOB protocols.

2.3 IDENTIFIED ASBESTOS-CONTAINING MATERIALS (ACM)

TABLE I: IDENTIFIED ACM
W. L. MORSE ELEMENTARY SCHOOL
30 Pocantico Street,
Sleepy Hollow, NY 10591
(CONSTRUCTION AREAS)
(Refer to Appendix A for details)

KEY: **ACM** = Materials containing greater than 1% of asbestos;
LF = Linear Feet; **SF** = Square Feet; **PACM** = Presumed Asbestos-containing Materials;
Friable = ACM capable of being released into air, and which can be crumbled, pulverized, powdered, crushed, or exposed by hand-pressure.

Location	Material	Approximate Quantity	Friable?	Condition
INTERIORS				
Basement, Fan Room, on Metal Pipes	TSI & Associated Fittings	100 LF	Yes	Damaged
Lobby 003, Above Ceiling, on Metal Pipes	TSI & Associated Fittings	20 LF	Yes	Good
Stair A Lower Landing, Above Ceiling, on Metal Pipes	TSI & Associated Fittings	20 LF	Yes	Good
Corridor A, Above Ceiling, on Metal Pipes	TSI & Associated Fittings	20 LF	Yes	Good
Basement, Boiler Room, on Metal Boiler Sections (2 Boilers)	Rope Gasket	500 LF	Yes	Good
Basement, Stair A Landing, Staff Lounge 008 & Bathrooms	Floor Tile & Mastic	630 SF	No	Good
First Floor, Lobby 100, Corridor A & Stair C Corridor, Corridor B, Stair B Landing, Corridor C & Stair D & E Corridors, Classrooms 10, 11, 12, 13, 13A, 14, 15, 16, 17, 18, Principal 15 & Server 15A, Vestibule to Storage Room 109B, Floors	Floor Tile & Mastic	9,876 SF	No	Good
Second Floor, Lobby 200 and Stair A Top Landing, Corridor A & Stair C Corridor, Corridor B, Corridor C & Stair D & E Corridors, Classrooms 20, 22, 24, and Speech Room 22B, Floors	Floor Tile & Mastic	7,106 SF	No	Good
Third Floor, Social Worker/Library 31A, Art Room 31 & Storage, Stair B Corridor, Math Specialists/ENL Room 30, Music Room 30, ENL Classroom 35 Door Threshold, GR 2 Classroom 39 Door Threshold, Floors	Floor Tile & Mastic	3,460 SF	No	Good
Basement, Boy's Locker Room 006, Wall, on CMU	Non-ACM Ceramic Wall Tile with ACM Adhesive	1,200 SF	No	Good

TABLE 1 – IDENTIFIED ACM - CONTINUED				
Basement, Boy's Locker Room 006, Wall, on Ceramic Wall Tile	ACM Grout	25 SF	Yes	Good
PRESUMED ASBESTOS CONTAINING MATERIALS (PACM)				
Basement, Boy's Locker Room 006, in Wet Walls/Ceiling	TSI & Associated Fittings	125 LF	Yes	Unknown
First Floor, Boy's Toilet 115, in Wet Walls/Ceiling	TSI & Associated Fittings	40 LF	Yes	Unknown
First Floor, Girl's Toilet 116, in Wet Walls/Ceiling	TSI & Associated Fittings	40 LF	Yes	Unknown
Second Floor, Boy's Toilet 218, in Wet Walls/Ceiling	TSI & Associated Fittings	40 LF	Yes	Unknown
Second Floor, Girl's Toilet 219, in Wet Walls/Ceiling	TSI & Associated Fittings	40 LF	Yes	Unknown
Men's Toilet & Custodian Closet, in Wet Walls/Ceiling	TSI & Associated Fittings	50 LF	Yes	Unknown
Women's Toilet & Teachers Work Room, in Wet Walls/Ceiling	TSI & Associated Fittings	50 LF	Yes	Unknown
Sub-Basement, Boiler Room	Rib Gaskets and Boiler Interiors	600 SF (300 per boiler)	Yes	Unknown
Exterior, Courtyard, Below Grade to Cafeteria Area	Waterproofing Tar	200 SF	No	Unknown
EXTERIORS				
***** No Asbestos-containing Materials (ACM) identified upon PLM & QTEM/PLM analysis. *****				
Note: 1.0- Partial sampling of one boiler was performed, with the rope gasket between metal boiler sections identified as ACM. The balance of the boiler interiors/exteriors not accessible during the inspection are to be presumed ACM until the boilers can be shut down and additional sampling performed. 2.0- ACM TSI & Associated fittings were significantly damaged in areas at the time of the inspection within the Fan Room. A contamination assessment and site-specific variance for cleanup of the area is recommended. 3.0- TSI within bathroom wet walls and above ceilings were not accessible during the survey and are presumed ACM at this time.				

3.0 LEAD SURVEY:

3.1 INSPECTION SUMMARY

QuES&T conducted a Limited Pre-Construction Lead Survey, utilizing X-Ray Fluorescence Technology (XRF), throughout specific interior and exterior areas of the W. L. Morse Elementary School, located at 30 Pocantico Street, Sleepy Hollow, NY 10591 in support of future renovations. The survey was limited to specific accessible, representative building components & immovable objects, potentially affected by scheduled renovation/construction activities.

Certified XRF Technician(s) Jessica E. Lopez of **QuES&T**, collected a total of one hundred sixty-one **(161)** samples (including calibrations) on June 13th, 2024.

3.2 IDENTIFIED LEAD-BASED PAINT(S) (LBP)

Based on review of the data generated by the Viken Detection Pb200e Serial #3553 XRF Spectrum Analyzer, the following surfaces tested were identified as lead based as defined by HUD/EPA (equal to or in excess of 1.0 milligram per square centimeter):

TABLE II: IDENTIFIED LEAD-BASED PAINT W. L. MORSE ELEMENTARY SCHOOL 30 Pocantico Street, Sleepy Hollow, NY 10591 (CONSTRUCTION AREAS) (Refer to Appendix C for details)				
Location	**LBP Component**	**Substrate**	**Color**	**LBP Condition**
Boiler Room	Wall	CMU	White	Intact
Electrical Panel Room	Door & Door Frame	Wood	Grey & White LBP	Intact
Bathroom	Wall Panel & Metal Bars	Wood & Metal	Beige	Intact
Electrical Panel Room	Wall	Brick	White	Intact
Electrical Panel Room	Pipe	Metal	White	Intact
Electrical Panel Room	Window Frame	Wood	White	Intact
Boiler Room Hallway	Wall	CMU	White	Intact
Cafeteria Hallway	Upper Wall	Wood	White	Intact
Gym	Wall	Wood	White	Intact
Stairwell to Gym	Stair Railing	Metal	Brown	Intact
Stairwell to Gym	Upper Wall	Wood	White	Intact
Stairwell to 2nd Floor	Stair Railing	Metal	Brown	Intact
Classroom 16	Wall	Wood	White	Intact
Boy's Bathroom	Wall	Plaster	Beige	Intact
NOTE: Locations and quantities of identified LBP's are limited to areas potentially affected by future renovation activities. Surfaces/components with LBP's may exist in other spaces not included in this scope of work.				

It should be noted that several components tested did in fact contain minimal lead-levels below the EPA threshold level of 1.0 mg/sq. cm for classification as Lead-Based Paint (LBP) and are considered lead-containing coatings by the OSHA Regulation, "Lead Exposure in Construction" (29 CFR 1926.62). OSHA does not recognize a minimum limit for lead concentrations in paint for the purposes of disturbance. Monitoring of workers performing demolition/cleaning/disturbance of painted surfaces shall be completed to document personnel occupational exposure. Items containing any amount of lead concentration are considered lead-containing coatings per 29 CFR 1926.62, OSHA Lead Exposure in Construction.

4.0 POLYCHLORINATED BIPHENYL (PCB) SURVEY:

4.1 INSPECTION SUMMARY

QuES&T conducted a Limited Pre-Construction Survey for the presence of PCBs throughout specific exterior areas of the W. L. Morse Elementary School, located at 30 Pocantico Street, Sleepy Hollow, NY 10591 in support of future renovations. Sampling was limited to representative, homogenous, exterior caulks potentially affected by scheduled renovation/construction activities.

Mr. Shannon Talsma, of **QuES&T**, collected a total of two **(2)** exterior caulk samples. Following collection, all caulk samples were properly packaged and forwarded to York Analytical Laboratories, Inc., in Stratford, CT for analysis using method SW846-8082A. Copies of the analytical results are contained within attached appendices for review.

4.2 IDENTIFIED PCBS

A summation of samples collected, and associated results are as follows:

TABLE III: SUMMATION OF COLLECTED PCB CAULK SAMPLES
W. L. MORSE ELEMENTARY SCHOOL
30 Pocantico Street,
Sleepy Hollow, NY 10591
(CONSTRUCTION AREAS)

Sample #	Location/Description	Material Matrix	Color	Substrate	Applicable Regulatory Standards (Most Stringent)	Classification Result Upon Lab analysis
6101-PCB-01	Exterior, Courtyard, Window, Frame, Metal to Brick and Mortar	Caulk	Grey	Metal/Brick	USEPA 40 CFR 761	**Not Detected** at The Reporting Limit (RL) or above.
6101-PCB-02	Exterior, Main Entry, Door, Frame, Metal to Decorative Stone	Caulk	Grey	Metal/Deco Stone	USEPA 40 CFR 761	**Not Detected** at The Reporting Limit (RL) or above. (**20.0 ppm** Total PCBs)

5.0 RECOMMENDATIONS:

4.1 ASBESTOS

All construction personnel as well as individuals who have access to locations where asbestos containing materials (ACM) exists should be informed of its presence and the proper work practices in these areas. Conspicuous labeling of all ACM is suggested to ensure personnel is adequately informed. Personnel should be informed not to rest, lean or store material or equipment on or near these surfaces and not to cut, saw, drill, sand or disturb ACM. All removal, disturbance, and repair of ACM should be performed in compliance with Title 12 NYCRR Part 56 by persons properly trained to handle ACM. Facility custodial and maintenance personnel should receive training commensurate with their work activities; as defined in 29 CFR 1910.1001.

As specified in Title 12 NYCRR Part 56-5.1 (h) and (i), "If the building/structure asbestos survey finds that the portion of the building/structure to be demolished, renovated, remodeled, or have repair work contains ACM, PACM, suspect miscellaneous ACM assumed to be ACM, or asbestos material, which is impacted by the work, the owner or the owner's agent shall conduct, or cause to have conducted, asbestos removal performed by a licensed asbestos abatement contractor in conformance with all standards set forth in this Part. All ACM, PACM, suspect miscellaneous ACM assumed to be ACM, or asbestos material impacted by the demolition, renovation, remodeling, or repair project shall be removed as per this Part, prior to access or disturbance by other uncertified trades or personnel. No demolition, renovation, remodeling or repair work shall be commenced by any owner or the owner's agent prior to the completion of the asbestos abatement in accordance with the notification requirements of this Part…All building/structure owners and asbestos abatement contractors on a demolition, renovation, remodeling, or repair project, which includes work covered by this part, shall inform all trades on the work site about PACM, ACM, asbestos material and suspect miscellaneous ACM…Bids may be advertised and contracts

awarded for demolition, remodeling, renovation, or repair work, but no work on the current intermediate portion of the project shall commence on the demolition, renovation, remodeling or repair work by any owner or agent prior to completion of all necessary asbestos abatement work for the current intermediate portion of the entire project, in conformance with all standards set forth in this Part."

Prior to conducting demolition or construction work at the building, all ACM affected/impacted by such activities shall be removed utilizing a licensed asbestos abatement contractor and NYSDOL/EPA/NYC certified personnel prior to construction/demolition activities. All work conducted should be in accordance with all legal requirements, including but not limited to U.S. Environmental Protection Agency (EPA) National Emissions Standards for Hazardous Air Pollutants (NESHAP) [40 CFR Part 61], New York State Industrial Code Rule 56 Asbestos Regulations (ICR 56) and Chapter 1 of Title 15 of the Rules of the City of New York Regulations, as applicable. Advance notification of the asbestos project to the USEPA, NYSDOL, and NYCDEP may be required.

All suspect building materials not sampled during this survey should be considered ACM until these materials are sampled and analyzed for ACM in the laboratory. Concealed ACM: In addition to the ACMs identified at the site, there is a possibility that concealed ACM may exist at the subject facility. As such, if any concealed suspect ACM is encountered during future construction related activities, the work should immediately stop. Prior to resuming the work, the suspect ACM should either be 1) Sampled by an appropriately certified asbestos professional and submitted to an Approved NYSDOH ELAP laboratory for asbestos analysis or 2) Presumed to be ACM (PACM) and removed by a licensed asbestos abatement contractor for disposal in accordance with all applicable regulations.

4.2 LEAD

In addition to any identified Lead-based Paints (LBP), several components tested did in fact contain minimal lead-levels below the EPA threshold level of 1.0 mg/sq. cm for classification as LBP and are considered lead-containing coatings by the OSHA Regulation, "Lead Exposure in Construction" (29 CFR 1926.62). OSHA does not recognize a minimum limit for lead concentrations in paint for the purposes of disturbance. Monitoring of workers performing demolition/cleaning/disturbance of painted surfaces shall be completed to document personnel occupational exposure. Items containing any amount of lead concentration are considered lead-containing coatings per 29 CFR 1926.62, OSHA Lead Exposure in Construction.

Activities involving the disturbance of LBP in homes, child-occupied facilities, and/or pre-schools built before 1978 must follow the requirements outlined by EPA regulations (40 CFR 745).

In areas where demolition and/or renovations are to occur and lead is present, the demolition debris waste stream should be further analyzed during segregation for compliance with EPA regulations to ensure proper disposal. TCLP testing can be performed prior to waste segregation, but results may not be indicative of the actual waste streams produced during demolition.

6.0 DISCLAIMERS

The findings presented in this report are based upon reasonably available information and observed site conditions at the time the assessment was performed. Conditions may have changed since that time and the findings and conclusions of this report are not meant to be indicative of future conditions at the Site. This report does not warrant against conditions that were not evident from visual observations or historical information obtained, or conditions that could only be determined by physical sampling or other intrusive investigation techniques that are outside the proposed scope of work.

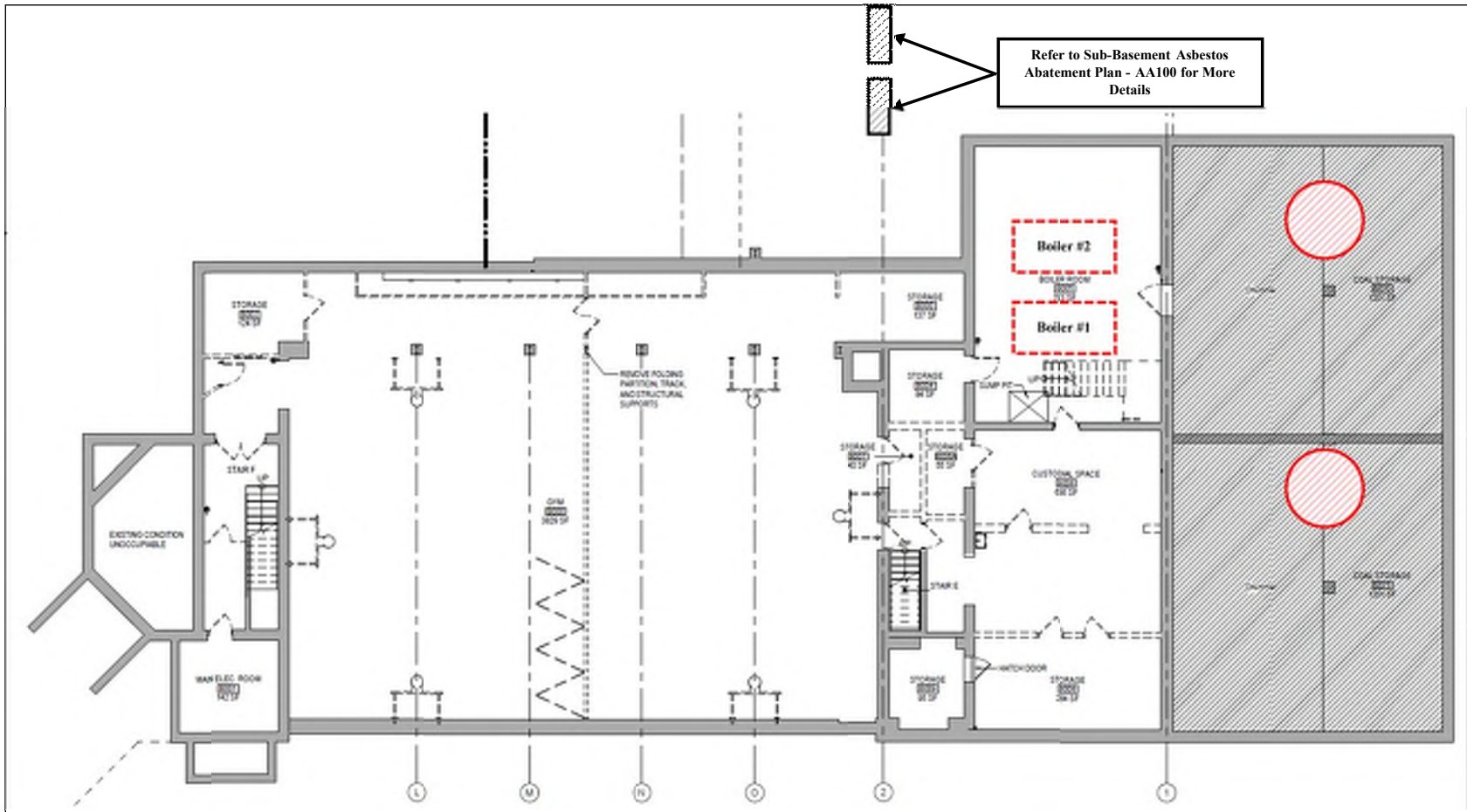
It should be noted that the information contained within this report is based solely upon site observations and the results of laboratory analysis for samples collected by **QuES&T.** These observations and results are time dependent, subject to changing site conditions and revisions to Federal, State and Local regulations. **QuES&T** warrants that these findings have been promulgated after being prepared in general accordance with generally accepted practices in the abatement industries. **QuES&T** also recognizes that inspection laboratory data is not usually sufficient to make all abatement and management decisions.

Due to the potential for concealed Asbestos-containing Materials (ACM) or other regulated materials, this report should not be construed to represent all ACM or regulated materials within the site(s). All quantities of ACM or other regulated materials identified, and all dimensions listed within this report are approximate and should be verified On-site.

This inspection report is not intended to be used as the sole basis for soliciting pricing for regulated materials abatement. An abatement plan, specification, drawing and/or Variances should be developed to identify scope, timing, phasing, and remediation means & methods for any asbestos project. The Linear and/or Square Footages (LF / SF) listed within this Report are only approximates. Abatement Contractor(s) are required to visit the building(s) in order to take actual field measurements within each listed location.

Appendix A:

ACM LOCATION DRAWINGS



ACM LOCATION KEY (Refer to Report for Details)	
Inspection Scope	
	ACM Boiler Sections Rope Gasket & Presumed ACM (PACM) Boiler Interiors
	PACM Waterproofing Tar on Top of Concrete Deck
	PACM Foundation Waterproofing Tar

N

Drawing Not to Scale
This Drawing is not intended to be used as the sole basis for soliciting pricing for asbestos abatement. An abatement plan, specification, drawing and/or variances should be developed to identify scope, timing, phasing and remediation means & methods for any asbestos project.

Date: 12/19/2024	Version # 1
Issued For: Asbestos Survey	
QuES&T Project # : 24-6101	
Project Manager: RL	Prepared By: ZT

QuES&T

Quality Environmental Solutions & Technologies, Inc.
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Wappingers Falls, NY 12590
Phone: (845) 298- 6031
Fax: (845) 298-6251

CLIENT

UNION FREE SCHOOL DISTRICT OF TARRYTOWNS
200 North Broadway
Sleepy Hollow, NY 10591

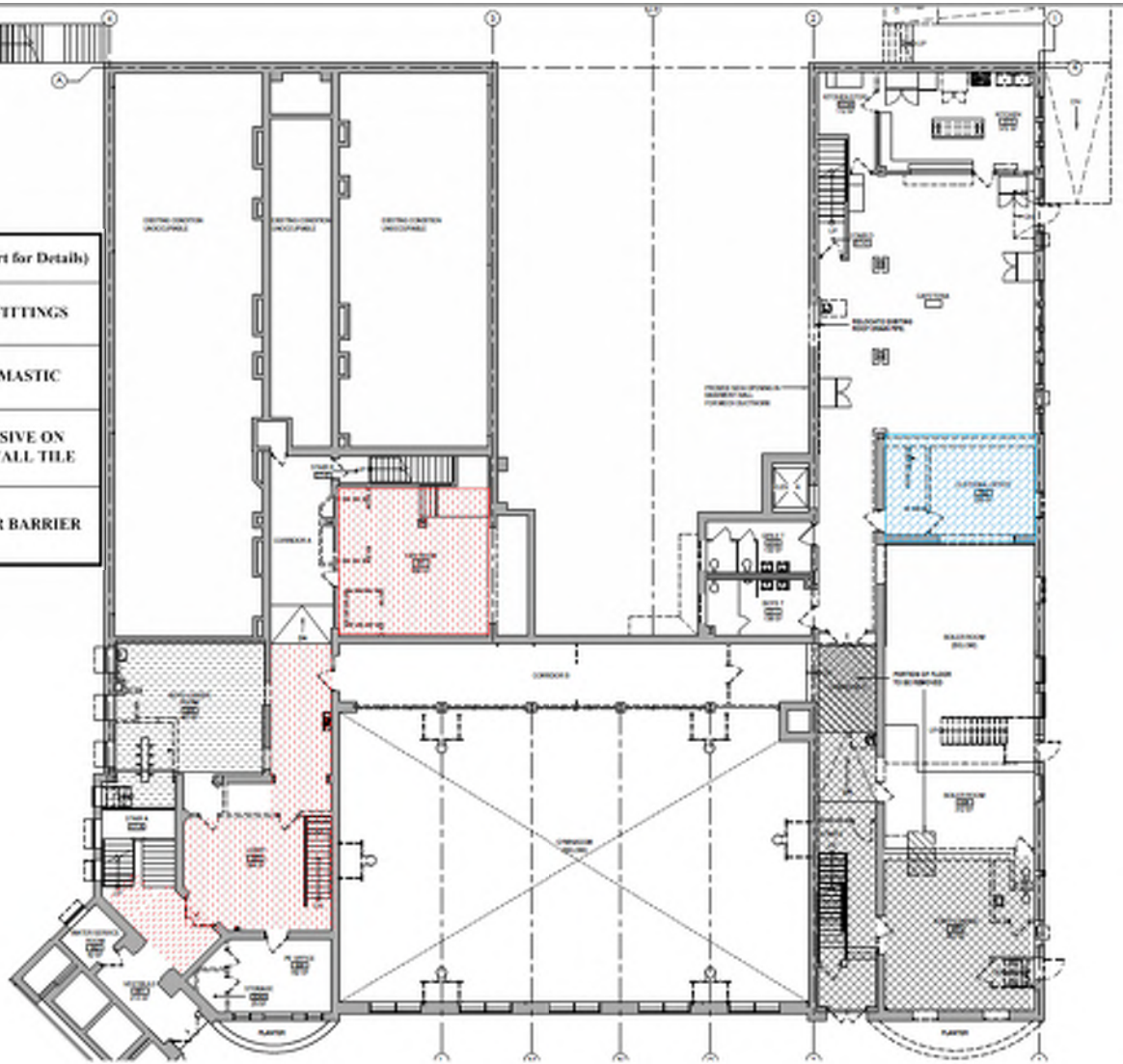
PROJECT LOCATION

W.L Morse Elementary School
30 Pocantico Street,
Sleepy Hollow, NY 10591

SUB BASEMENT ACM LOCATIONS

ASB-01

ACM LOCATION KEY (Refer to Report for Details)	
	ACM TSI & MUDDED FITTINGS
	ACM FLOOR TILE & MASTIC
	ACM GROUT & ADHESIVE ON NON-ACM CERAMIC WALL TILE
	PACM SUB SLAB VAPOR BARRIER



N

Drawing Not to Scale

This Drawing is not intended to be used as the sole basis for soliciting pricing for asbestos abatement. An abatement plan, specification, drawing and/or variances should be developed to identify scope, timing, phasing and remediation means & methods for any asbestos project.

Date: 12/19/2024	**Version #** 1
Issued For: Asbestos Survey	
QuES&T Project #: 24-6101	
Project Manager: RL	**Prepared By:** ZT

QuES&T

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CLIENT

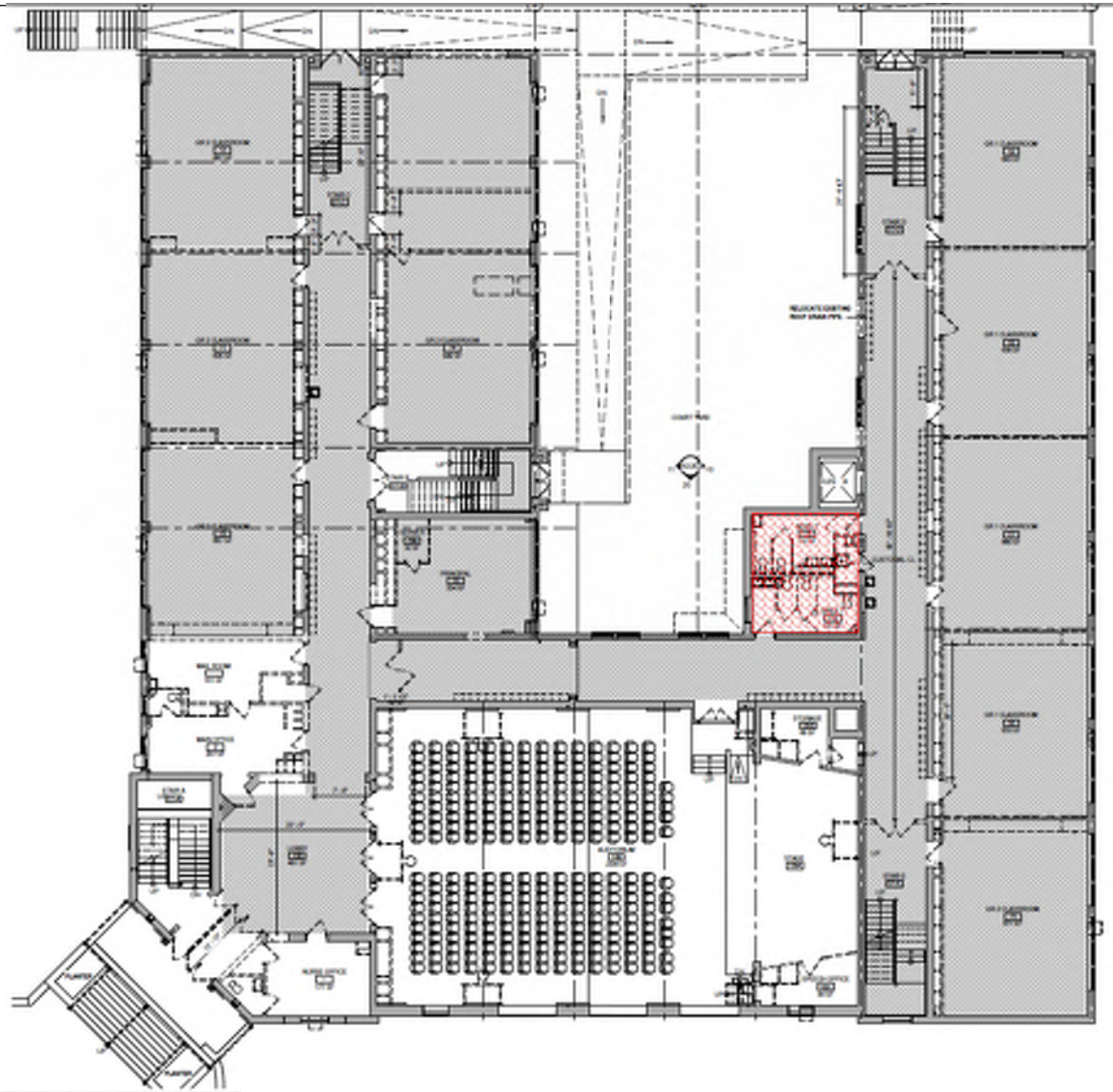
UNION FREE SCHOOL DISTRICT OF TARRYTOWNS
200 North Broadway
Sleepy Hollow, NY 10591

PROJECT LOCATION

W.L Morse Elementary School
30 Pocantico Street,
Sleepy Hollow, NY 10591

BASEMENT ACM LOCATIONS

ASB-02



ACM LOCATION KEY (Refer to Report for Details)	
	ACM FLOOR TILE & MASTIC
	PACM TSI & MUDDED JOINT PACKING IN WET WALLS/CEILINGS

N

Drawing Not to Scale

This Drawing is not intended to be used as the sole basis for soliciting pricing for asbestos abatement. An abatement plan, specification, drawing and/or variances should be developed to identify scope, timing, phasing and remediation means & methods for any asbestos project.

Date: 12/19/2024	**Version #** 1
Issued For: Asbestos Survey	
QuES&T Project #: 24-6101	
Project Manager: RL	**Prepared By:** ZT

QuES&T

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CLIENT

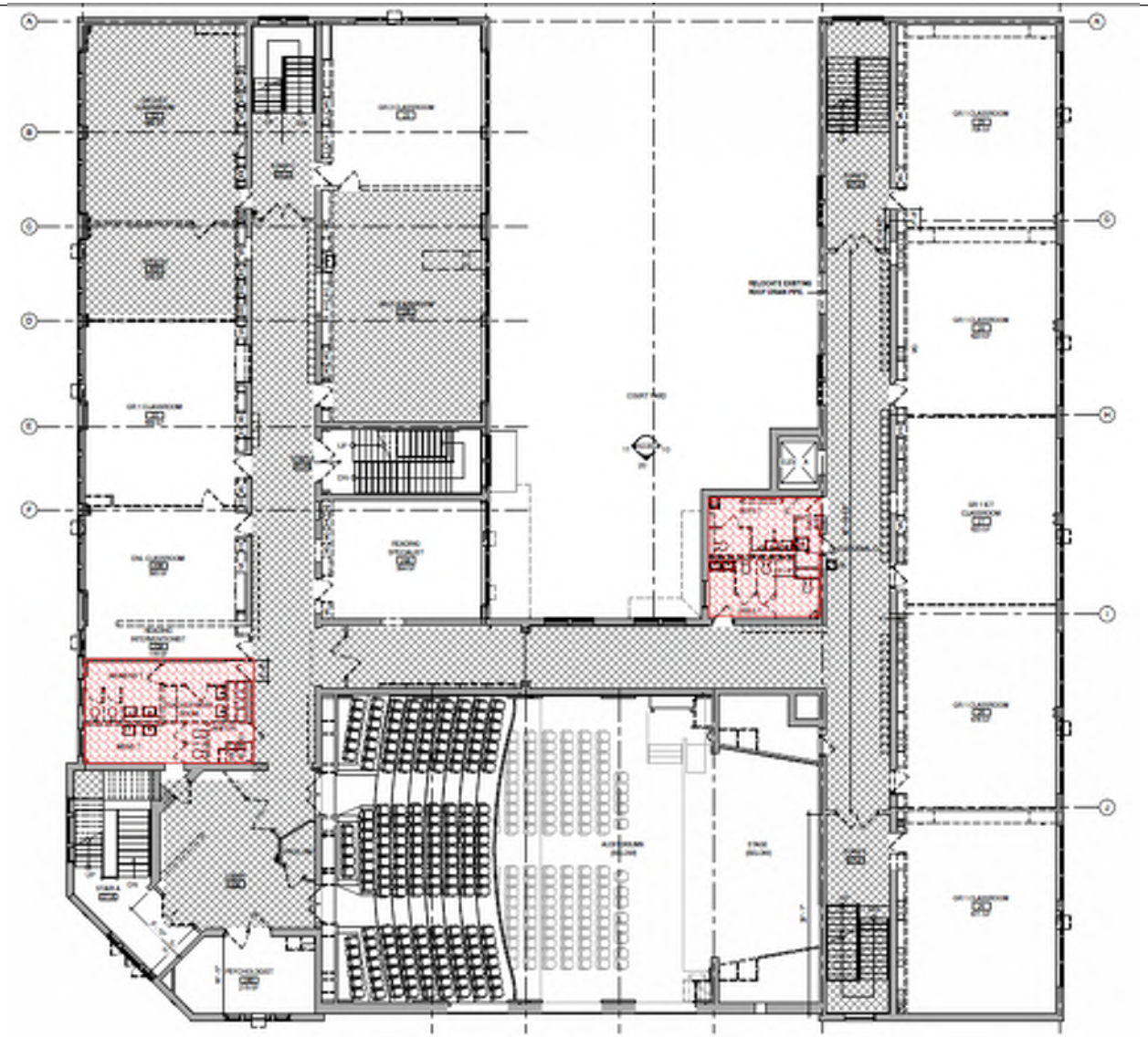
UNION FREE SCHOOL DISTRICT OF TARRYTOWNS
200 North Broadway
Sleepy Hollow, NY 10591

PROJECT LOCATION

W.L Morse Elementary School
30 Pocantico Street,
Sleepy Hollow, NY 10591

FIRST FLOOR ACM LOCATIONS

ASB-03



ACM LOCATION KEY (Refer to Report for Details)
ACM FLOOR TILE & MASTIC
PACM TSI & MUDDED JOINT PACKING IN WET WALLS/CEILINGS

N

Drawing Not to Scale

This Drawing is not intended to be used as the sole basis for soliciting pricing for asbestos abatement. An abatement plan, specification, drawing and/or variances should be developed to identify scope, timing, phasing and remediation means & methods for any asbestos project.

Date: 7/9/2024	**Version #** 1
Issued For: Asbestos Survey	
QuES&T Project #: 24-6101	
Project Manager: RL	**Prepared By:** ZT

QuES&T

Quality Environmental Solutions & Technologies, Inc.
1376 Route 9
Wappingers Falls, NY 12590
Phone: (845) 298- 6031
Fax: (845) 298-6251

CLIENT

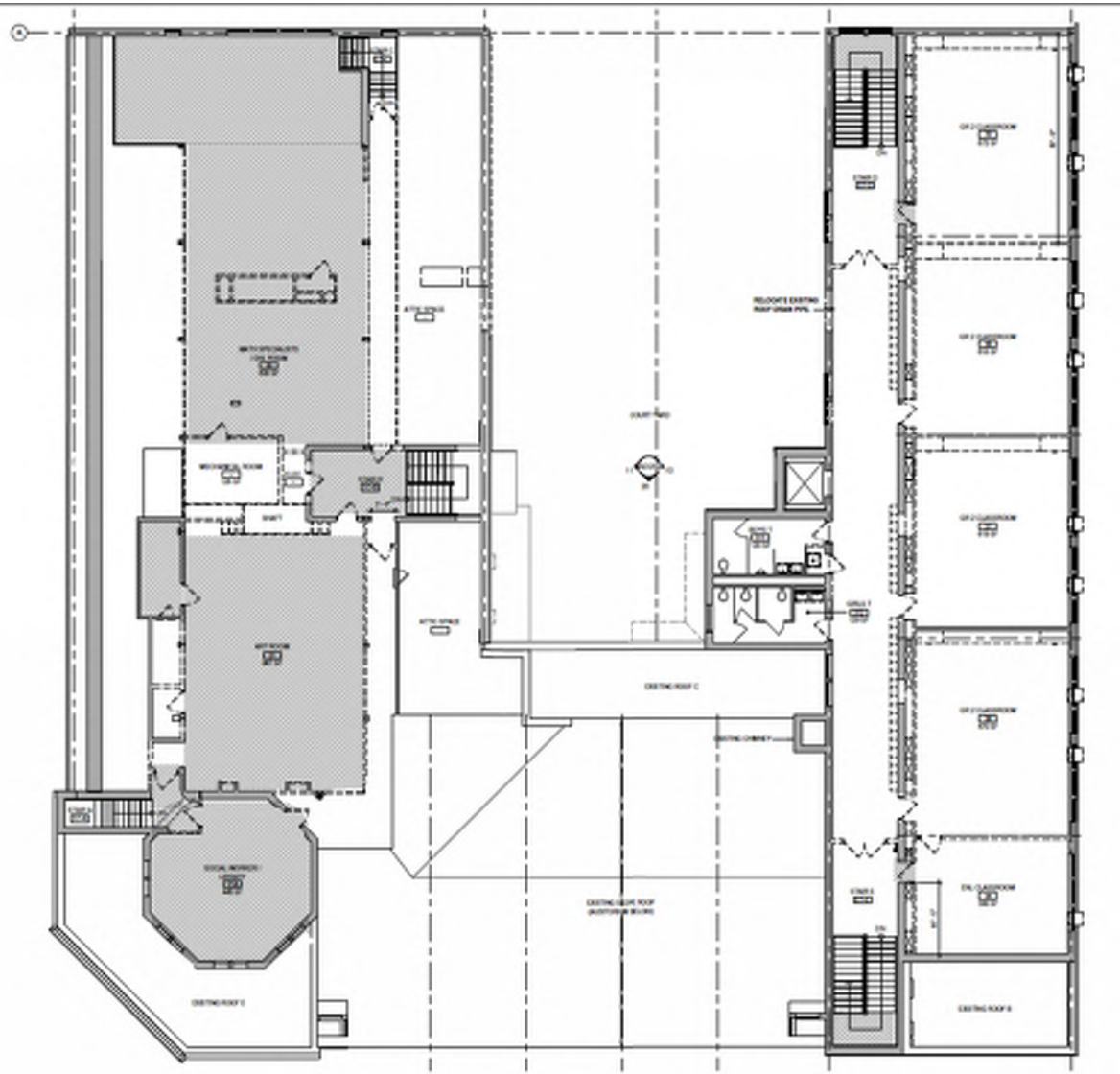
UNION FREE SCHOOL DISTRICT OF TARRYTOWNS
200 North Broadway
Sleepy Hollow, NY 10591

PROJECT LOCATION

W.L Morse Elementary School
30 Pocantico Street,
Sleepy Hollow, NY 10591

SECOND FLOOR ACM LOCATIONS

ASB-04



ACM LOCATION KEY (Refer to Report for Details)
ACM FLOOR TILE & MASTIC

N

Drawing Not to Scale

This Drawing is not intended to be used as the sole basis for soliciting pricing for asbestos abatement. An abatement plan, specification, drawing and/or variances should be developed to identify scope, timing, phasing and remediation means & methods for any asbestos project.

Date: 12/19/2024	**Version #** 1
Issued For: Asbestos Survey	
QuES&T Project #: 24-6101	
Project Manager: RL	**Prepared By:** ZT

QuES&T

Quality Environmental
Solutions & Technologies, Inc.
1376 Route 9
Wappingers Falls, NY 12590
Phone: (845) 298- 6031
Fax: (845) 298-6251

CLIENT

UNION FREE SCHOOL DISTRICT OF TARRYTOWNS
200 North Broadway
Sleepy Hollow, NY 10591

PROJECT LOCATION

W.L Morse Elementary School
30 Pocantico Street,
Sleepy Hollow, NY 10591

THIRD FLOOR ACM LOCATIONS

ASB-05

QuES&T
Quality Environmental Solutions & Technologies, Inc.

Appendix B:

ASBESTOS SAMPLE RESULTS & SAMPLE LOCATION DRAWINGS

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-01	246101-01	246101-02	246101-02
Layer Number		1	2	1	2
Lab ID Number		3007360	3007360	3007361	3007361
Sample Location		1st Floor, Original Wing, Hallway, Above Suspended Ceiling, Ceiling	1st Floor, Original Wing, Hallway, Above Suspended Ceiling, Ceiling	1st Floor, Original Wing, Room 11, Above Suspended Ceiling, Ceiling	1st Floor, Original Wing, Room 11, Above Suspended Ceiling, Ceiling
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	Yes	No
	Homogenous	No	No	No	No
	Fibrous	No	Yes	No	Yes
	Color	White/Brown	Gray/Brown	White/Brown	Gray/Brown
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	5.0 Hair	ND	5.0 Hair
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	10.0	30.0	5.0	30.0
	% Carbonates	40.0	25.0	40.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	50.0	40.0	55.0	45.0

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory. ND = Not Detected. Reporting Limit is <1%.
Liability Limited To Cost Of Analysis. This Report Must Not be Used by the Client to Claim Product Endorsement by NVLAP or Any Agency of the US Government.
These Results Can Not Be Used To Claim That NOB Items Tested Are Non-Asbestos Containing. Overall Lab Accuracy ± 17%. Samples received in acceptable condition unless otherwise noted.
AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-03	246101-03	246101-04	246101-04
Layer Number		1	2	1	2
Lab ID Number		3007362	3007362	3007363	3007363
Sample Location		1st Floor, Original Wing Room 14, Wall	1st Floor, Original Wing Room 14, Wall	1st Floor, Original Wing, Room 23, Above Suspended Ceiling, Ceiling	1st Floor, Original Wing, Room 23, Above Suspended Ceiling, Ceiling
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	Yes	No
	Homogenous	No	No	No	No
	Fibrous	No	Yes	No	Yes
	Color	White/Brown	Gray/Brown	White/Brown	Gray/Brown
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	5.0 Hair	ND	5.0 Hair
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	10.0	30.0	5.0	30.0
	% Carbonates	50.0	25.0	45.0	25.0
	% Other	ND	ND	ND	ND
	% Unidentified	40.0	40.0	50.0	40.0

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Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

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Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-05	246101-05	246101-06	246101-06
Layer Number		1	2	1	2
Lab ID Number		3007364	3007364	3007365	3007365
Sample Location		1st Floor, Original Wing, Room 20, Wall	1st Floor, Original Wing, Room 20, Wall	1st Floor, Original Wing, Room 20A, Wall	1st Floor, Original Wing, Room 20A, Wall
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	Yes	No
	Homogenous	No	No	No	No
	Fibrous	No	Yes	No	Yes
	Color	White/Brown	Gray/Brown	White/Brown	Gray/Brown
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	5.0 Hair	ND	5.0 Hair
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	5.0	30.0	5.0	30.0
	% Carbonates	45.0	20.0	45.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	50.0	45.0	50.0	45.0

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Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-07	246101-07	246101-08	246101-08
Layer Number		1	2	1	2
Lab ID Number		3007366	3007366	3007367	3007367
Sample Location		1st Floor, Original Wing, Room 31, Above Suspended Ceiling, Ceiling	1st Floor, Original Wing, Room 31, Above Suspended Ceiling, Ceiling	1st Floor, Original Wing, Hallway, Wall	1st Floor, Original Wing, Hallway, Wall
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	Yes	No
	Homogenous	No	Yes	No	Yes
	Fibrous	No	No	No	No
	Color	White/Brown	Gray	White/Brown	Gray
Sample Treatment		Homogenized	None	Homogenized	None
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	5.0	30.0	5.0	30.0
	% Carbonates	40.0	25.0	40.0	25.0
	% Other	ND	ND	ND	ND
	% Unidentified	55.0	45.0	55.0	45.0

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory. ND = Not Detected. Reporting Limit is <1%.
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Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

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Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-09	246101-09	246101-10	246101-10
Layer Number		1	2	1	2
Lab ID Number		3007368	3007368	3007369	3007369
Sample Location		1st Floor, Original Wing, Room 30, Wall	1st Floor, Original Wing, Room 30, Wall	1st Floor, Addition Wing, Room 16, Above Suspended Ceiling, Ceiling	1st Floor, Addition Wing, Room 16, Above Suspended Ceiling, Ceiling
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	No	No
	Homogenous	No	No	Yes	No
	Fibrous	No	No	No	Yes
	Color	White/Brown	Gray	White/Brown	Gray
Sample Treatment		Homogenized	Homogenized	None	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	10.0 Hair
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	5.0	35.0	10.0	30.0
	% Carbonates	50.0	20.0	45.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	45.0	45.0	45.0	40.0

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory. ND = Not Detected. Reporting Limit is <1%.
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Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-11	246101-11	246101-12	246101-12
Layer Number		1	2	1	2
Lab ID Number		3007370	3007370	3007371	3007371
Sample Location		1st Floor, Addition Wing, Hallway, Above Suspended Ceiling, Ceiling	1st Floor, Addition Wing, Hallway, Above Suspended Ceiling, Ceiling	1st Floor, Addition Wing, Hallway, Wall	1st Floor, Addition Wing, Hallway, Wall
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	Yes	No
	Homogenous	No	No	No	No
	Fibrous	No	Yes	No	Yes
	Color	White/Gray	Gray	White/Gray	Gray
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	10.0 Hair	ND	5.0 Hair
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	10.0	30.0	10.0	30.0
	% Carbonates	45.0	25.0	40.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	45.0	35.0	50.0	45.0

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Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-13	246101-13	246101-14	246101-14
Layer Number		1	2	1	2
Lab ID Number		3007372	3007372	3007373	3007373
Sample Location		2nd Floor, Addition Wing, Room 26, Above Suspended Ceiling, Ceiling	2nd Floor, Addition Wing, Room 26, Above Suspended Ceiling, Ceiling	2nd Floor, Addition Wing, Room 28, Wall	2nd Floor, Addition Wing, Room 28, Wall
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	Yes	No
	Homogenous	No	No	No	No
	Fibrous	No	Yes	No	Yes
	Color	White/Brown	Gray/Brown	White/Tan	Gray/Brown
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	5.0 Hair	ND	5.0 Hair
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	10.0	35.0	10.0	35.0
	% Carbonates	45.0	20.0	40.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	45.0	40.0	50.0	40.0

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Eastern Analytical Services, Inc.

Bulk Sample Results

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Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

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Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-15	246101-15	246101-16	246101-16
Layer Number		1	2	1	2
Lab ID Number		3007374	3007374	3007375	3007375
Sample Location		2nd Floor, Addition Wing, Room 29, Wall	2nd Floor, Addition Wing, Room 29, Wall	2nd Floor, Auditorium, Balcony, Ceiling	2nd Floor, Auditorium, Balcony, Ceiling
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	Yes	No
	Homogenous	No	No	No	No
	Fibrous	No	Yes	No	Yes
	Color	White/Tan	Gray/Brown	White/Gray	Gray
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	5.0 Hair	ND	5.0 Hair
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	5.0	30.0	10.0	30.0
	% Carbonates	50.0	25.0	45.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	45.0	40.0	45.0	45.0

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Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-17	246101-17	246101-18	246101-18
Layer Number		1	2	1	2
Lab ID Number		3007376	3007376	3007377	3007377
Sample Location		3rd Floor, Addition Wing, Room 36, Above Suspended Ceiling, Ceiling	3rd Floor, Addition Wing, Room 36, Above Suspended Ceiling, Ceiling	3rd Floor, Addition Wing, Hallway, Wall	3rd Floor, Addition Wing, Hallway, Wall
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	Yes	No
	Homogenous	No	No	No	No
	Fibrous	No	Yes	No	Yes
	Color	White/Gray	Gray	White/Tan	Gray/Brown
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	5.0 Hair	ND	5.0 Hair
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	5.0	30.0	5.0	30.0
	% Carbonates	50.0	25.0	45.0	25.0
	% Other	ND	ND	ND	ND
	% Unidentified	45.0	40.0	50.0	40.0

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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-19	246101-19	246101-20	246101-20
Layer Number		1	2	1	2
Lab ID Number		3007378	3007378	3007379	3007379
Sample Location		3rd Floor, Addition Wing, Room 37, Wall	3rd Floor, Addition Wing, Room 37, Wall	Floor B, Custodial Office, Ceiling, On Metal Lath	Floor B, Custodial Office, Ceiling, On Metal Lath
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	No	No
	Homogenous	No	No	Yes	No
	Fibrous	No	Yes	No	Yes
	Color	White/Tan	Gray/Brown	White	Gray
Sample Treatment		Homogenized	Homogenized	None	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	5.0 Hair	ND	5.0 Hair
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	5.0	30.0	5.0	30.0
	% Carbonates	45.0	25.0	45.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	50.0	40.0	50.0	45.0

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Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-21	246101-21	246101-22	246101-22
Layer Number		1	2	1	2
Lab ID Number		3007380	3007380	3007381	3007381
Sample Location		Floor B, Custodial Office, Ceiling, On Metal Lath	Floor B, Custodial Office, Ceiling, On Metal Lath	Floor B, Boiler Room, Closet, Ceiling, On Metal Lath	Floor B, Boiler Room, Closet, Ceiling, On Metal Lath
Sample Description		Plaster (Plaster Layer)	Plaster (Scratch Layer)	Plaster (Plaster Layer)	Plaster (Scratch Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	No	No	No	No
	Homogenous	Yes	No	No	Yes
	Fibrous	No	Yes	Yes	No
	Color	White	Gray	Beige/Brown	Gray
Sample Treatment		None	Homogenized	Homogenized	None
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	5.0 Hair	5.0 Hair	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	5.0	35.0	20.0	35.0
	% Carbonates	45.0	20.0	30.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	50.0	40.0	45.0	45.0

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Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

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Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-23	246101-24	246101-25	246101-26
Layer Number					
Lab ID Number		3007382	3007383	3007384	3007385
Sample Location		Floor B, Boiler Room, On Ceiling	Floor B, Boiler Room, On Ceiling	Floor B, Boiler Room, On Ceiling	Floor B, Fan Room, On Metal Pipe
Sample Description		Spray-on Fireproofing	Spray-on Fireproofing	Spray-on Fireproofing	TSI
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Point Count
Appearance	Layered	No	No	No	No
	Homogenous	No	No	No	No
	Fibrous	Yes	Yes	Yes	Yes
	Color	Gray	Gray	Gray	Gray/White
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	21.1
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	21.1
Other Fibrous Materials Present	% Fibrous Glass	30.0	30.0	35.0	ND
	% Cellulose	ND	ND	ND	21.1
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	10.0	10.0	10.0	ND
	% Carbonates	20.0	20.0	15.0	ND
	% Other	ND	ND	ND	ND
	% Unidentified	40.0	40.0	40.0	57.8

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1376 Route 9
Wappingers Falls, NY 12590

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Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-27	246101-28	246101-29	246101-30
Layer Number					
Lab ID Number		3007386	3007387	3007388	3007389
Sample Location		Floor B, Fan Room, On Metal Pipe	Floor B, Fan Room, On Metal Pipe	Floor B, Fan Room, On Metal Pipe Fitting	Floor B, Fan Room, On Metal Pipe Fitting
Sample Description		TSI	TSI	Mudded joint Packing	Mudded joint Packing
Method of Quantification		Point Count	Point Count	Point Count	Point Count
Appearance	Layered	No	No	No	No
	Homogenous	No	No	No	No
	Fibrous	Yes	Yes	No	Yes
	Color	Gray/White	Gray/White	Gray	Gray
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	23.5	22.2	25.0	23.5
	% Other	ND	ND	ND	ND
	% Total Asbestos	23.5	22.2	25.0	23.5
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	23.5	22.2	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	ND	ND	ND	ND
	% Carbonates	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	53.0	55.6	75.0	76.5

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Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-31	246101-32	246101-33	246101-34
Layer Number					
Lab ID Number		3007390	3007391	3007392	3007393
Sample Location		Floor B, Fan Room, On Metal Pipe Fitting	Floor B, Boiler Room, Boiler 1, On Duct	Floor B, Boiler Room, Boiler 1, On Duct	Floor B, Boiler Room, Boiler 2, On Duct
Sample Description		Mudded joint Packing	Insulation	Insulation	Insulation
Method of Quantification		Point Count	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	No	Yes	No	No
	Homogenous	No	No	No	No
	Fibrous	Yes	No	Yes	Yes
	Color	Gray	Gray	Gray	Gray
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	26.7	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	26.7	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	20.0	25.0	20.0
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	ND	15.0	20.0	15.0
	% Carbonates	ND	20.0	15.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	73.3	45.0	40.0	45.0

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Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-35	246101-36	246101-37	246101-38
Layer Number					
Lab ID Number		3007394	3007395	3007396	3007397
Sample Location		Floor B, Boiler Room, Boiler 2, Between Ribs	Floor B, Boiler Room, Boiler 2, Between Ribs	Floor B, Boiler Room, Boiler 2, Between Ribs	Floor B, New Custodial Office, In Wall Cavity
Sample Description		Packing	Packing	Packing	Insulation
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	No	No	No	No
	Homogenous	No	No	No	No
	Fibrous	Yes	Yes	Yes	Yes
	Color	Gray	Gray	Gray	Gray/Brown
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	25.0	20.0	25.0	65.0
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	10.0	15.0	10.0	5.0
	% Carbonates	25.0	25.0	20.0	ND
	% Other	ND	ND	ND	ND
	% Unidentified	40.0	40.0	45.0	30.0

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Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-39	246101-40	246101-41	246101-42
Layer Number					
Lab ID Number		3007398	3007399	3007400	3007401
Sample Location		Floor B, New Custodial Office, In Wall Cavity	Floor B, New Custodial Office, In Wall Cavity	Floor B, Boiler Room. Boiler 1, Behind Panel, On Mudded Packing	Floor B, Boiler Room. Boiler 1, Behind Panel, On Mudded Packing
Sample Description		Insulation	Insulation	Insulation	Insulation
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	No	No	No	No
	Homogenous	No	No	Yes	Yes
	Fibrous	Yes	Yes	Yes	Yes
	Color	Gray/Brown	Gray/Brown	Brown/Gray	Brown/Gray
Sample Treatment		Homogenized	Homogenized	None	None
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	60.0	65.0	60.0	55.0
	% Cellulose	ND	ND	5.0	5.0
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	5.0	5.0	10.0	10.0
	% Carbonates	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	35.0	30.0	25.0	30.0

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Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-43	246101-44	246101-45	246101-46
Layer Number					
Lab ID Number		3007402	3007403	3007404	3007405
Sample Location		Floor B, Boiler Room. Boiler 2, Behind Panel, On Mudded Packing	Floor B, Boiler Room. On Metal Pipe, Fiberglass	Floor B, Boiler Room. Return Line A, On Metal Pipe, Fiberglass	Floor B, Boiler Room. Boiler 2, On Boiler #2 Pipe
Sample Description		Insulation	Insulation	Insulation	Insulation
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	No	Yes	Yes	Yes
	Homogenous	Yes	No	No	No
	Fibrous	Yes	Yes	Yes	Yes
	Color	Brown/Gray	Yellow/White/Silver	Yellow/Silver/Beige	Yellow/Beige/Silver
Sample Treatment		None	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	50.0	35.0	40.0	40.0
	% Cellulose	5.0	20.0	15.0	15.0
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	15.0	15.0	20.0	15.0
	% Carbonates	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	30.0	30.0	25.0	30.0

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Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-53	246101-54	246101-55	246101-56
Layer Number					
Lab ID Number		3007406	3007407	3007408	3007409
Sample Location		2nd Floor, Boy's Bathroom, Floor, 1" x 1" White	2nd Floor, Boy's Bathroom, Floor, 1" x 1" White	2nd Floor, Boy's Bathroom, Floor, On 1" x 1" White Ceramic Floor Tile	2nd Floor, Boy's Bathroom, Floor, On 1" x 1" White Ceramic Floor Tile
Sample Description		Ceramic Tile	Ceramic Floor Tile	Grout	Grout
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	Yes	No	No
	Homogenous	No	No	No	No
	Fibrous	No	No	No	No
	Color	Gray/White	Gray/White	Gray/Brown	Gray/Brown
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	35.0	40.0	25.0	30.0
	% Carbonates	ND	ND	25.0	25.0
	% Other	ND	ND	ND	ND
	% Unidentified	65.0	60.0	50.0	45.0

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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-57	246101-58	246101-61	246101-62
Layer Number					
Lab ID Number		3007410	3007411	3007412	3007413
Sample Location		2nd Floor, Boy's Bathroom, Floor, Below Ceramic Floor Tile	2nd Floor, Boy's Bathroom, Floor, Below Ceramic Floor Tile	Floor B, Boiler Room, Floor	Floor B, Boiler Room, Upper Section, Floor
Sample Description		Mud Set	Mud Set	Concrete Slab	Concrete Slab
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	No	No	No	No
	Homogenous	No	No	No	No
	Fibrous	No	No	No	No
	Color	Gray/Brown	Gray/Brown	Gray	Gray
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	25.0	20.0	20.0	20.0
	% Carbonates	30.0	30.0	35.0	30.0
	% Other	ND	ND	ND	ND
	% Unidentified	45.0	50.0	45.0	50.0

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1376 Route 9
Wappingers Falls, NY 12590

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Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-63	246101-64	246101-73	246101-74
Layer Number					
Lab ID Number		3007414	3007415	3007416	3007417
Sample Location		Floor B, Boiler Room, Boiler 1, Pad	3rd Floor, Stairwell, Landing Outside Art Room, Floor, Under Tile & Fiberboard	3rd Floor, Stairwell, Art Room Landing, Floor, Under Floor Tile & Mastic, On Concrete	3rd Floor, Stairwell, Art Room Landing, Floor, Under Floor Tile & Mastic, On Concrete
Sample Description		Concrete Slab	Concrete Slab	Fiberboard	Fiberboard
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	Yes	Yes	Yes
	Homogenous	No	No	No	No
	Fibrous	No	No	Yes	Yes
	Color	Gray	Gray	Brown/Black	Brown/Black
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	20.0	25.0
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	25.0	25.0	10.0	10.0
	% Carbonates	30.0	35.0	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	45.0	40.0	70.0	65.0

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Wappingers Falls, NY 12590

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Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-81	246101-82	246101-83	246101-84
Layer Number					
Lab ID Number		3007418	3007419	3007420	3007421
Sample Location		2nd Floor, Boy's Bathroom, Wall on Plaster	2nd Floor, Boy's Bathroom, Wall on Plaster	2nd Floor, Boy's Bathroom, Wall, On Ceramic Wall Tile	2nd Floor, Boy's Bathroom, Wall, On Ceramic Wall Tile
Sample Description		Ceramic Wall Tile	Ceramic Wall Tile	Grout	Grout
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	Yes	No	No
	Homogenous	No	No	Yes	No
	Fibrous	No	No	No	No
	Color	Tan/White	Tan/White	Gray	Gray
Sample Treatment		Homogenized	Homogenized	None	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	30.0	35.0	30.0	30.0
	% Carbonates	ND	ND	20.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	70.0	65.0	50.0	50.0

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Bulk Sample Results

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Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
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Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-85	246101-86	246101-95	246101-96
Layer Number					
Lab ID Number		3007422	3007423	3007424	3007425
Sample Location		2nd Floor, Boy's Bathroom, Wall, Ceramic Wall Tile to Plaster	2nd Floor, Boy's Bathroom, Wall, Ceramic Wall Tile to Plaster	Floor B, Boiler Room, Perimeter Wall	Floor B, Boiler Room, Perimeter Wall
Sample Description		Mortar	Mortar	Concrete	Concrete
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	Yes	No	No
	Homogenous	No	No	No	No
	Fibrous	No	No	No	No
	Color	White/Brown	White/Brown	Gray/Brown	Gray/Brown
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	20.0	20.0	30.0	25.0
	% Carbonates	30.0	35.0	30.0	30.0
	% Other	ND	ND	ND	ND
	% Unidentified	50.0	45.0	40.0	45.0

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1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-97	246101-98	246101-99	246101-100
Layer Number					
Lab ID Number		3007426	3007427	3007428	3007429
Sample Location		Floor B, Boiler Room, Upper Section, Wall	Floor B, Fan Room, Wall	Floor B, Boiler Room, Upper Section, Wall, On Brick	Floor B, Fan Room, Wall, On Brick
Sample Description		Brick	Brick	Mortar	Mortar
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	Yes	No
	Homogenous	No	No	No	No
	Fibrous	No	No	No	No
	Color	Red/White	Red	Gray/White	Gray
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	25.0	25.0	30.0	30.0
	% Carbonates	ND	ND	30.0	20.0
	% Other	ND	ND	ND	ND
	% Unidentified	75.0	75.0	40.0	50.0

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Bulk Sample Results

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Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/24/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number	246101-101
Layer Number	
Lab ID Number	3007430
Sample Location	Floor B, Hallway to Gym, Outside Storage Corridor, Wall
Sample Description	Sheetrock

Method of Quantification		Scanning Option
Appearance	Layered	Yes
	Homogenous	No
	Fibrous	Yes
	Color	White/Brown/Gray
Sample Treatment		Homogenized
Asbestos Content	% Amosite	ND
	% Chrysotile	ND
	% Other	ND
	% Total Asbestos	ND
Other Fibrous Materials Present	% Fibrous Glass	5.0
	% Cellulose	15.0
	% Other	ND
	% Unidentified	ND
Non-Fibrous Materials Present	% Silicates	15.0
	% Carbonates	30.0
	% Other	ND
	% Unidentified	35.0

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Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/20/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number	246101-47	246101-48	246101-49	246101-50
Layer Number				
Lab ID Number	3007086	3007087	3007088	3007089
Sample Location	3rd Floor, Art Room, Suspended Ceiling, 2' x 4' Dot Canyon	3rd Floor, Art Room, Suspended Ceiling, 2' x 4' Dot Canyon	3rd Floor, Music Room, On Sheetrock Soffit, Splined, Dot Canyon	3rd Floor, Music Room, On Sheetrock Soffit, Splined, Dot Canyon
Sample Description	Ceiling Tile	Ceiling Tile	Ceiling Tile	Ceiling Tile
Analytical Method	NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance: Layered	Yes	Yes	Yes	Yes
Homogenous	No	No	No	No
Fibrous	Yes	Yes	Yes	Yes
Color	Brown/White	Brown/White	Beige/White	Beige/White
Asbestos Content: % Amosite	ND	ND	ND	ND
% Chrysotile	ND	ND	ND	ND
% Other	ND	ND	ND	ND
% Total Asbestos	ND Inconclusive	ND Inconclusive	ND Inconclusive	ND Inconclusive
Other Materials Present: % Organic	26.7	29.4	11.7	12.1
% Carbonates	3.8	1.2	2.5	5.1
% Other Inorganic	69.5	69.4	85.8	82.8

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Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		246101-51	246101-52	246101-59	246101-60
Layer Number					
Lab ID Number		3007090	3007091	3007092	3007093
Sample Location		3rd Floor, Stairwell, Landing Outside Art Room, On Plywood, Smooth Splined	3rd Floor, Stairwell, Landing Outside Art Room, On Plywood, Smooth Splined	1st Floor, Girl's Bathroom, Floor, On Ceramic	2nd Floor, Girl's Bathroom, Floor, On Ceramic
Sample Description		Ceiling Tile	Ceiling Tile	Epoxy	Epoxy
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	Yes	Yes	No	No
	Homogenous	No	No	Yes	Yes
	Fibrous	Yes	Yes	No	No
	Color	Tan/White	Tan/White	Gray	Gray
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND Inconclusive	ND Inconclusive	ND Inconclusive	ND Inconclusive
Other Materials Present	% Organic	92.0	92.7	18.7	16.7
	% Carbonates	2.3	2.4	45.7	46.5
	% Other Inorganic	5.7	4.9	35.6	36.8

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Date Analyzed : 06/20/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		246101-65	246101-66	246101-67	246101-68
Layer Number					
Lab ID Number		3007094	3007095	3007096	3007097
Sample Location		3rd Floor, Addition Wing, Hallway, Floor, On Concrete	3rd Floor, Addition Wing, Hallway, Floor, On Concrete	1st Floor, Hallway, Outside Room 13B, Floor, 12" x 12" Tan	2nd Floor, Hallway, Floor, 12" x 12" Tan
Sample Description		Sheet Floor	Sheet Floor	Floor Tile	Floor Tile
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	Yes	Yes	No	No
	Homogenous	No	No	Yes	Yes
	Fibrous	Yes	Yes	No	No
	Color	Brown/Tan	Brown/Tan	Pink	Pink
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND Inconclusive	ND Inconclusive	ND	ND
Other Materials Present	% Organic	80.1	76.9	14.9	14.7
	% Carbonates	1.6	6.6	85.0	85.2
	% Other Inorganic	18.3	16.5	0.1	0.1

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Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		246101-69	246101-70	246101-71	246101-72
Layer Number					
Lab ID Number		3007098	3007099	3007100	3007101
Sample Location		3rd Floor, Stairwell, Art Room Landing, Floor, 12" x 12" Tan	3rd Floor, Stairwell, Art Room Landing, Floor, 12" x 12" Tan	3rd Floor, Stairwell, Art Room Landing, Floor, Under 12" x 12" Floor Tile, On Fiberboard	3rd Floor, Stairwell, Art Room Landing, Floor, Under 12" x 12" Floor Tile, On Fiberboard
Sample Description		Floor Tile	Floor Tile	Mastic	Mastic
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Tan	Tan	Black	Black
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	0.3	0.3	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	0.3 Inconclusive	0.3 Inconclusive	ND Inconclusive	ND Inconclusive
Other Materials Present	% Organic	32.9	33.2	91.0	86.0
	% Carbonates	44.4	44.3	1.8	7.8
	% Other Inorganic	22.4	22.2	7.2	6.2

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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/20/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		246101-75	246101-75	246101-76	246101-76
Layer Number		1	2	1	2
Lab ID Number		3007102	3007102	3007103	3007103
Sample Location		1st Floor, Room 13, Floor, On Wood, 12" x 12"	1st Floor, Room 13, Floor, On Wood, 12" x 12"	3rd Floor, Art Room, Floor, On Plywood, 9" x 9" Tan	3rd Floor, Art Room, Floor, On Plywood, 9" x 9" Tan
Sample Description		Floor Tile & Mastic (Tile Layer)	Floor Tile & Mastic (Mastic Layer)	Floor Tile & Mastic (Tile Layer)	Floor Tile & Mastic (Mastic Layer)
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	White	Black	Tan	Black
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	0.3	1.9
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND Inconclusive	0.3 Inconclusive	1.9
Other Materials Present	% Organic	15.1	77.1	37.1	69.5
	% Carbonates	84.3	12.4	38.2	16.0
	% Other Inorganic	0.6	10.5	24.4	12.6

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Bulk Sample Results

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Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client QuES&T, Inc.
1376 Route 9
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Date Collected : 06/13/2024
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Date Received : 06/17/2024
Date Analyzed : 06/20/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		246101-77	246101-77	246101-78	246101-78
Layer Number		1	2	1	2
Lab ID Number		3007104	3007104	3007105	3007105
Sample Location		3rd Floor, Art Room, Floor, On Plywood, 9" x 9" Tan	3rd Floor, Art Room, Floor, On Plywood, 9" x 9" Tan	2nd Floor, Room 24, Floor, On Wood, 9" x 9"	2nd Floor, Room 24, Floor, On Wood, 9" x 9"
Sample Description		Floor Tile & Mastic (Tile Layer)	Floor Tile & Mastic (Mastic Layer)	Floor Tile & Mastic (Tile Layer)	Floor Tile & Mastic (Mastic Layer)
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Tan	Black	Pink	Black
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	0.3	1.7	0.3	2.4
	% Other	ND	ND	ND	ND
	% Total Asbestos	0.3 Inconclusive	1.7	0.3 Inconclusive	2.4
Other Materials Present	% Organic	30.7	73.3	36.5	78.7
	% Carbonates	47.9	15.0	40.8	10.1
	% Other Inorganic	21.1	10.0	22.4	8.8

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Collected By : Z. Timpano/J. Mages/D. Stamper
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Date Analyzed : 06/20/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		246101-79	246101-80	246101-87	246101-87
Layer Number				1	2
Lab ID Number		3007106	3007107	3007108	3007108
Sample Location		2nd Floor, Stairwell, Floor, On Concrete, 9" x 9"	2nd Floor, Stairwell, Floor, On Concrete, 9" x 9"	Floor B, Hallway to Gym, Wall, On CMU	Floor B, Hallway to Gym, Wall, On CMU
Sample Description		Floor Tile	Floor Tile	Cove Base Molding & Adhesive (Molding Layer)	Cove Base Molding & Adhesive (Adhesive Layer)
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Black/White	Black/White	Black	Brown
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	0.8	0.6	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	0.8 Inconclusive	0.6 Inconclusive	ND	ND Inconclusive
Other Materials Present	% Organic	40.3	40.1	63.5	56.7
	% Carbonates	7.7	6.6	36.2	2.8
	% Other Inorganic	51.2	52.7	0.3	40.5

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Bulk Sample Results

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Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/20/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		246101-88	246101-88	246101-89	246101-89
Layer Number		1	2	1	2
Lab ID Number		3007109	3007109	3007110	3007110
Sample Location		Floor B, Hallway to Gym, Wall, On CMU	Floor B, Hallway to Gym, Wall, On CMU	1st Floor, Auditorium Hallway, On Plaster Wall, 6 Inch Brown	1st Floor, Auditorium Hallway, On Plaster Wall, 6 Inch Brown
Sample Description		Cove Base Molding & Adhesive (Molding Layer)	Cove Base Molding & Adhesive (Adhesive Layer)	Cove Base Molding & Adhesive (Molding Layer)	Cove Base Molding & Adhesive (Adhesive Layer)
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Black	Brown	Brown	Tan
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND Inconclusive	ND	ND Inconclusive
Other Materials Present	% Organic	64.7	59.1	58.1	73.4
	% Carbonates	35.2	3.2	40.9	5.3
	% Other Inorganic	0.1	37.7	1.0	21.3

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Date Received : 06/17/2024
Date Analyzed : 06/20/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		246101-90	246101-90	246101-91	246101-92
Layer Number		1	2		
Lab ID Number		3007111	3007111	3007112	3007113
Sample Location		1st Floor, Auditorium Hallway, On Plaster Wall, 6 Inch Brown	1st Floor, Auditorium Hallway, On Plaster Wall, 6 Inch Brown	Floor B, Boiler Room, Upper Section, Partition Wall to Bathroom, Brick to Metal Pipe	Floor B, Stroage Corridor Next to Gym, Metal Pipe to CMU
Sample Description		Cove Base Molding & Adhesive (Molding Layer)	Cove Base Molding & Adhesive (Adhesive Layer)	Firestop Caulk	Firestop Caulk
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Brown	Tan	Red	Red
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND Inconclusive	ND Inconclusive	ND Inconclusive
Other Materials Present	% Organic	54.0	72.9	56.9	46.3
	% Carbonates	45.9	2.9	4.8	32.8
	% Other Inorganic	0.1	24.2	38.3	20.9

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Date Received : 06/17/2024
Date Analyzed : 06/20/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		246101-93	246101-94
Layer Number			
Lab ID Number		3007114	3007115
Sample Location		Floor B, Boiler Room Hallway, On Large Diameter Pipe to Wall	Floor B, Boiler Room Hallway, On Large Diameter Pipe to Wall
Sample Description		Caulk	Caulk
Analytical Method		NOB Plm	NOB Plm
Appearance	Layered	No	No
	Homogenous	Yes	Yes
	Fibrous	No	No
	Color	White	White
Asbestos Content	% Amosite	ND	ND
	% Chrysotile	ND	ND
	% Other	ND	ND
	% Total Asbestos	ND Inconclusive	ND Inconclusive
Other Materials Present	% Organic	62.7	62.4
	% Carbonates	4.2	4.7
	% Other Inorganic	33.1	32.9

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Bulk Sample Results

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Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/25/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		246101-47	246101-48	246101-49	246101-50
Layer Number					
Lab ID Number		3007086	3007087	3007088	3007089
Sample Location		3rd Floor, Art Room, Suspended Ceiling, 2' x 4' Dot Canyon	3rd Floor, Art Room, Suspended Ceiling, 2' x 4' Dot Canyon	3rd Floor, Music Room, On Sheetrock Soffit, Splined, Dot Canyon	3rd Floor, Music Room, On Sheetrock Soffit, Splined, Dot Canyon
Sample Description		Ceiling Tile	Ceiling Tile	Ceiling Tile	Ceiling Tile
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	Yes	Yes	Yes	Yes
	Homogenous	No	No	No	No
	Fibrous	Yes	Yes	Yes	Yes
	Color	Brown/White	Brown/White	Beige/White	Beige/White
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Materials Present	% Organic	26.7	29.4	11.7	12.1
	% Carbonates	3.8	1.2	2.5	5.1
	% Other Inorganic	69.5	69.4	85.8	82.8

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Wappingers Falls, NY 12590

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Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		246101-51	246101-52	246101-59	246101-60
Layer Number					
Lab ID Number		3007090	3007091	3007092	3007093
Sample Location		3rd Floor, Stairwell, Landing Outside Art Room, On Plywood, Smooth Splined	3rd Floor, Stairwell, Landing Outside Art Room, On Plywood, Smooth Splined	1st Floor, Girl's Bathroom, Floor, On Ceramic	2nd Floor, Girl's Bathroom, Floor, On Ceramic
Sample Description		Ceiling Tile	Ceiling Tile	Epoxy	Epoxy
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	Yes	Yes	No	No
	Homogenous	No	No	Yes	Yes
	Fibrous	Yes	Yes	No	No
	Color	Tan/White	Tan/White	Gray	Gray
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Materials Present	% Organic	92.0	92.7	18.7	16.7
	% Carbonates	2.3	2.4	45.7	46.5
	% Other Inorganic	5.7	4.9	35.6	36.8

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Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		246101-65	246101-66	246101-69	246101-70
Layer Number					
Lab ID Number		3007094	3007095	3007098	3007099
Sample Location		3rd Floor, Addition Wing, Hallway, Floor, On Concrete	3rd Floor, Addition Wing, Hallway, Floor, On Concrete	3rd Floor, Stairwell, Art Room Landing, Floor, 12" x 12" Tan	3rd Floor, Stairwell, Art Room Landing, Floor, 12" x 12" Tan
Sample Description		Sheet Floor	Sheet Floor	Floor Tile	Floor Tile
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	Yes	Yes	No	No
	Homogenous	No	No	Yes	Yes
	Fibrous	Yes	Yes	No	No
	Color	Brown/Tan	Brown/Tan	Tan	Tan
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	9.1	9.0
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	9.1	9.0
Other Materials Present	% Organic	80.1	76.9	32.9	33.2
	% Carbonates	1.6	6.6	44.4	44.3
	% Other Inorganic	18.3	16.5	13.6	13.5

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Signature :
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NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
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Wappingers Falls, NY 12590

Sample ID Number		246101-71	246101-72	246101-75	246101-76
Layer Number				2	1
Lab ID Number		3007100	3007101	3007102	3007103
Sample Location		3rd Floor, Stairwell, Art Room Landing, Floor, Under 12" x 12" Floor Tile, On Fiberboard	3rd Floor, Stairwell, Art Room Landing, Floor, Under 12" x 12" Floor Tile, On Fiberboard	1st Floor, Room 13, Floor, On Wood, 12" x 12"	3rd Floor, Art Room, Floor, On Plywood, 9" x 9" Tan
Sample Description		Mastic	Mastic	Floor Tile & Mastic (Mastic Layer)	Floor Tile & Mastic (Tile Layer)
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Black	Black	Black	Tan
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	3.9	3.4	ND	16.0
	% Other	ND	ND	ND	ND
	% Total Asbestos	3.9	3.4	ND	16.0
Other Materials Present	% Organic	91.0	86.0	77.1	37.1
	% Carbonates	1.8	7.8	12.4	38.2
	% Other Inorganic	3.3	2.8	10.5	8.7

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Collected By : Z. Timpano/J. Mages/D. Stamper
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Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
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Wappingers Falls, NY 12590

Sample ID Number		246101-77	246101-78	246101-79	246101-80
Layer Number		1	1		
Lab ID Number		3007104	3007105	3007106	3007107
Sample Location		3rd Floor, Art Room, Floor, On Plywood, 9" x 9" Tan	2nd Floor, Room 24, Floor, On Wood, 9" x 9"	2nd Floor, Stairwell, Floor, On Concrete, 9" x 9"	2nd Floor, Stairwell, Floor, On Concrete, 9" x 9"
Sample Description		Floor Tile & Mastic (Tile Layer)	Floor Tile & Mastic (Tile Layer)	Floor Tile	Floor Tile
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Tan	Pink	Black/White	Black/White
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	13.9	14.8	18.2	18.6
	% Other	ND	ND	ND	ND
	% Total Asbestos	13.9	14.8	18.2	18.6
Other Materials Present	% Organic	30.7	36.5	40.3	40.1
	% Carbonates	47.9	40.8	7.7	6.6
	% Other Inorganic	7.5	7.9	33.8	34.7

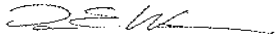
Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory. Samples received in acceptable condition unless otherwise noted. ND = Not Detected.
Liability Limited To Cost Of Analysis. This Report Must Not be Used by the Client to Claim Product Endorsement by NVLAP or Any Agency of the US Government.
AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/25/2024
Analyzed By : Damien Warner
Signature : 
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		246101-87	246101-88	246101-89	246101-90
Layer Number		2	2	2	2
Lab ID Number		3007108	3007109	3007110	3007111
Sample Location		Floor B, Hallway to Gym, Wall, On CMU	Floor B, Hallway to Gym, Wall, On CMU	1st Floor, Auditorium Hallway, On Plaster Wall, 6 Inch Brown	1st Floor, Auditorium Hallway, On Plaster Wall, 6 Inch Brown
Sample Description		Cove Base Molding & Adhesive (Adhesive Layer)	Cove Base Molding & Adhesive (Adhesive Layer)	Cove Base Molding & Adhesive (Adhesive Layer)	Cove Base Molding & Adhesive (Adhesive Layer)
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Brown	Brown	Tan	Tan
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Materials Present	% Organic	56.7	59.1	73.4	72.9
	% Carbonates	2.8	3.2	5.3	2.9
	% Other Inorganic	40.5	37.7	21.3	24.2

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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrrytowns - Pre-Construction
Environmental Testing & Design - 30 Pocantico St - Sleepy Hollow, NY

Date Collected : 06/13/2024
Collected By : Z. Timpano/J. Mages/D. Stamper
Date Received : 06/17/2024
Date Analyzed : 06/25/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		246101-91	246101-92	246101-93	246101-94
Layer Number					
Lab ID Number		3007112	3007113	3007114	3007115
Sample Location		Floor B, Boiler Room, Upper Section, Partition Wall to Bathroom, Brick to Metal Pipe	Floor B, Stroage Corridor Next to Gym, Metal Pipe to CMU	Floor B, Boiler Room Hallway, On Large Diameter Pipe to Wall	Floor B, Boiler Room Hallway, On Large Diameter Pipe to Wall
Sample Description		Firestop Caulk	Firestop Caulk	Caulk	Caulk
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Red	Red	White	White
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Materials Present	% Organic	56.9	46.3	62.7	62.4
	% Carbonates	4.8	32.8	4.2	4.7
	% Other Inorganic	38.3	20.9	33.1	32.9

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory. Samples received in acceptable condition unless otherwise noted. ND = Not Detected.
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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Quality Environmental Solutions and Technologies, Inc.
Bulk Sample Chain of Custody

CLIENT: Union Free School District of Tarrytowns
ADDRESS: 200 North Broadway
Sleepy Hollow, NY 10591

CONTACT: Brian Fried
PROJECT ID: Pre-Contruction Env. Testing & Design
30 Pocantico Street, Sleepy Hollow, NY
PROJECT # : 246101

SAMPLED BY: Z. Timpano, J. Mages, D. Stamper
DATE SAMPLED: 13-Jun-24

ANALYSIS METHOD: PLM, PLM-NOB and/or QTEM
TURN-AROUND TIME: 5 Days

	Sample	HM#	Floor	Space Name/ID #	Location	Material	Results
3007360	246101-01	1	1	ORIGINAL WING	HALLWAY, ABOVE SUSPENDED CEILING, CEILING	PLASTER	
3007361	246101-02	1	1	ORIGINAL WING	ROOM 11, ABOVE SUSPENDED CEILING, CEILING	PLASTER	
3007362	246101-03	1	1	ORIGINAL WING	ROOM 14, WALL	PLASTER	
3007363	246101-04	1	2	ORIGINAL WING	ROOM 23, ABOVE SUSPENDED CEILING, CEILING	PLASTER	
3007364	246101-05	1	2	ORIGINAL WING	ROOM 20, WALL	PLASTER	
3007365	246101-06	1	2	ORIGINAL WING	ROOM 20A, WALL	PLASTER	
3007366	246101-07	1	3	ORIGINAL WING	ROOM 31, ABOVE SUSPENDED CEILING, CEILING	PLASTER	
3007367	246101-08	1	3	ORIGINAL WING	HALLWAY, WALL	PLASTER	
3007368	246101-09	1	3	ORIGINAL WING	ROOM 30, WALL	PLASTER	
3007369	246101-10	1	1	ADDITION WING	ROOM 16, ABOVE SUSPENDED CEILING, CEILING	PLASTER	
3007370	246101-11	1	1	ADDITION WING	HALLWAY, ABOVE SUSPENDED CEILING, CEILING	PLASTER	
3007371	246101-12	1	1	ADDITION WING	HALLWAY, WALL	PLASTER	
3007372	246101-13	1	2	ADDITION WING	ROOM 26, ABOVE SUSPENDED CEILING, CEILING	PLASTER	
3007373	246101-14	1	2	ADDITION WING	ROOM 28, WALL	PLASTER	
3007374	246101-15	1	2	ADDITION WING	ROOM 29, WALL	PLASTER	

AS LABELED ON PAPERWORK
INITIAL/DATE: MP, 06/18/2024

Comments:

SUBMITTED BY:

DATE: 06/17/24

RECEIVED BY:

JUN 17'24 21:05

DATE:

Quality Environmental Solutions and Technologies, Inc.
Bulk Sample Chain of Custody

CLIENT: Union Free School District of Tarrytowns
SAMPLED BY: Z. Timpano, J. Mages, D. Stamper
ADDRESS: 200 North Broadway, Sleepy Hollow, NY 10591
DATE SAMPLED: 13-Jun-24
CONTACT: Brian Fried
ANALYSIS METHOD: PLM, PLM-NOB and/or QTEM
PROJECT ID: Pre-Contruction Env. Testing & Design, 30 Pocantico Street, Sleepy Hollow, NY
TURN-AROUND TIME: 5 Days
PROJECT # : 246101

	Sample	HM#	Floor	Space Name/ID #	Location	Material	Results
3007375	246101-16	1	2	AUDITORIUM	BALCONY, CEILING	PLASTER	
3007376	246101-17	1	3	ADDITION WING	ROOM 36, ABOVE SUSPENDED CEILING, CEILING	PLASTER	
3007377	246101-18	1	3	ADDITION WING	HALLWAY, WALL	PLASTER	
3007378	246101-19	1	3	ADDITION WING	ROOM 37, WALL	PLASTER	
3007379	246101-20	1	B	CUSTODIAL OFFICE	CEILING, ON METAL LATHE	PLASTER	
3007380	246101-21	1	B	CUSTODIAL OFFICE	CEILING, ON METAL LATHE	PLASTER	
3007381	246101-22	1	B	BOILER ROOM	CLOSET, CEILING, ON METAL LATHE	PLASTER	
3007382	246101-23	2	B	BOILER ROOM	ON CEILING	SPRAY-ON FIREPROOFING	
3007383	246101-24	2	B	BOILER ROOM	ON CEILING	SPRAY-ON FIREPROOFING	
3007384	246101-25	2	B	BOILER ROOM	ON CEILING	SPRAY-ON FIREPROOFING	
3007385	246101-26	3	B	FAN ROOM	ON METAL PIPE	TSI	
3007386	246101-27	3	B	FAN ROOM	ON METAL PIPE	TSI	
3007387	246101-28	3	B	FAN ROOM	ON METAL PIPE	TSI	
3007388	246101-29	4	B	FAN ROOM	ON METAL PIPE FITTING	MUDDED JOINT PACKING	
3007389	246101-30	4	B	FAN ROOM	ON METAL PIPE FITTING	MUDDED JOINT PACKING	

Comments:

SUBMITTED BY:

DATE: 06/17/24

RECEIVED BY:

DATE: JUN 17 '24 21:05

Quality Environmental Solutions and Technologies, Inc.
Bulk Sample Chain of Custody

CLIENT: Union Free School District of Tarrytowns
ADDRESS: 200 North Broadway
Sleepy Hollow, NY 10591

CONTACT: Brian Fried
PROJECT ID: Pre-Contruction Env. Testing & Design
30 Pocantico Street, Sleepy Hollow, NY
PROJECT #: 246101

SAMPLED BY: Z. Timpano, J. Mages, D. Stamper
DATE SAMPLED: 13-Jun-24

ANALYSIS METHOD: PLM, PLM-NOB and/or QTEM
TURN-AROUND TIME: 5 Days

	Sample	HM#	Floor	Space Name/ID #	Location	Material	Results
3007390	246101-31	4	B	FAN ROOM	ON METAL PIPE FITTING	MUDDED JOINT PACKING	
3007391	246101-32	5	B	BOILER ROOM	BOILER 1, ON DUCT	INSULATION	
3007392	246101-33	5	B	BOILER ROOM	BOILER 1, ON DUCT	INSULATION	
3007393	246101-34	5	B	BOILER ROOM	BOILER 2, ON DUCT	INSULATION	
3007394	246101-35	6	B	BOILER ROOM	BOILER 2, BETWEEN RIBS	PACKING	
3007395	246101-36	6	B	BOILER ROOM	BOILER 2, BETWEEN RIBS	PACKING	
3007396	246101-37	6	B	BOILER ROOM	BOILER 2, BETWEEN RIBS	PACKING	
3007397	246101-38	7	B	NEW CUSTODIAL OFFICE	IN WALL CAVITY	INSULATION	
3007398	246101-39	7	B	NEW CUSTODIAL OFFICE	IN WALL CAVITY	INSULATION	
3007399	246101-40	7	B	NEW CUSTODIAL OFFICE	IN WALL CAVITY	INSULATION	
3007400	246101-41	7	B	BOILER ROOM	BOILER 1, BEHIND PANEL, ON MUDDED PACKING	INSULATION	
3007401	246101-42	7	B	BOILER ROOM	BOILER 1, BEHIND PANEL, ON MUDDED PACKING	INSULATION	
3007402	246101-43	7	B	BOILER ROOM	BOILER 2, BEHIND PANEL, ON MUDDED PACKING	INSULATION	
3007403	246101-44	7	B	BOILER ROOM	ON METAL PIPE, FIBERGLASS	INSULATION	
3007404	246101-45	7	B	BOILER ROOM	RETURN LINE A, ON METAL PIPE, FIBERGLASS	INSULATION	

Comments:

SUBMITTED BY: DATE: 06/17/24

RECEIVED BY: M D Wagner DATE: JUN 17 '24 21:05

Quality Environmental Solutions and Technologies, Inc.
Bulk Sample Chain of Custody

CLIENT: Union Free School District of Tarrytowns
SAMPLED BY: Z. Timpano, J. Mages, D. Stamper
ADDRESS: 200 North Broadway, Sleepy Hollow, NY 10591
DATE SAMPLED: 13-Jun-24
CONTACT: Brian Fried
ANALYSIS METHOD: PLM, PLM-NOB and/or QTEM
PROJECT ID: Pre-Contruction Env. Testing & Design, 30 Pocantico Street, Sleepy Hollow, NY
TURN-AROUND TIME: 5 Days
PROJECT # : 246101

	Sample	HM#	Floor	Space Name/ID #	Location	Material	Results
3007405	246101-46	7	B	BOILER ROOM	BOILER 2, ON BOILER #2 PIPE	INSULATION	
	246101-47	8	3	ART ROOM	SUSPENDED CEILING, 2'X4' DOT CANYON	CEILING TILE	
	246101-48	8	3	ART ROOM	SUSPENDED CEILING, 2'X4' DOT CANYON	CEILING TILE	
	246101-49	9	3	MUSIC ROOM	ON SHEETROCK SOFFIT, SPLINED, DOT CANYON	CEILING TILE	
	246101-50	9	3	MUSIC ROOM	ON SHEETROCK SOFFIT, SPLINED, DOT CANYON	CEILING TILE	
	246101-51	10	3	STAIRWELL	LANDING OUTSIDE ART ROOM, ON PLYWOOD, SMOOTH SPLINED	CEILING TILE	
	246101-52	10	3	STAIRWELL	LANDING OUTSIDE ART ROOM, ON PLYWOOD, SMOOTH SPLINED	CEILING TILE	
3007406	246101-53	11	2	BOY'S BATHROOM	FLOOR, 1"X1" WHITE	CERAMIC TILE	
3007407	246101-54	11	2	BOY'S BATHROOM	FLOOR, 1"X1" WHITE	CERAMIC TILE FLOOR TILE	
3007408	246101-55	12	2	BOY'S BATHROOM	FLOOR, ON 1"X1" WHITE CERAMIC FLOOR TILE	GROUT	
3007409	246101-56	12	2	BOY'S BATHROOM	FLOOR, ON 1"X1" WHITE CERAMIC FLOOR TILE	GROUT	
3007410	246101-57	13	2	BOY'S BATHROOM	FLOOR, BELOW CERAMIC FLOOR TILE	MUD SET	
3007411	246101-58	13	2	BOY'S BATHROOM	FLOOR, BELOW CERAMIC FLOOR TILE	MUD SET	
	246101-59	14	1	GIRL'S BATHROOM	FLOOR, ON CERAMIC	EPOXY	
	246101-60	14	2	GIRL'S BATHROOM	FLOOR, ON CERAMIC	EPOXY	

Comments:

SUBMITTED BY:

DATE: 06/17/24

RECEIVED BY: M D Warner

JUN 17 24 21:05

DATE:

Quality Environmental Solutions and Technologies, Inc.
Bulk Sample Chain of Custody

CLIENT: Union Free School District of Tarrytowns
ADDRESS: 200 North Broadway
Sleepy Hollow, NY 10591
CONTACT: Brian Fried
PROJECT ID: Pre-Contruction Env. Testing & Design
30 Pocantico Street, Sleepy Hollow, NY
PROJECT # : 246101

SAMPLED BY: Z. Timpano, J. Mages, D. Stamper
DATE SAMPLED: 13-Jun-24
ANALYSIS METHOD: PLM, PLM-NOB and/or QTEM
TURN-AROUND TIME: 5 Days

	Sample	HM#	Floor	Space Name/ID #	Location	Material	Results
3007412	246101-61	15	B	BOILER ROOM	FLOOR	CONCRETE SLAB	
3007413	246101-62	15	B	BOILER ROOM	UPPER SECTION, FLOOR	CONCRETE SLAB	
3007414	246101-63	16	B	BOILER ROOM	BOILER 1, PAD	CONCRETE SLAB	
3007415	246101-64	16	3	STAIRWELL	LANDING OUTSIDE ART ROOM, FLOOR, UNDER TILE & FIBERBOARD	CONCRETE SLAB	
	246101-65	17	3	ADDITION WING	HALLWAY, FLOOR, ON CONCRETE	SHEET FLOOR	
	246101-66	17	3	ADDITION WING	HALLWAY, FLOOR, ON CONCRETE	SHEET FLOOR	
	246101-67	18	1	HALLWAY	OUTSIDE ROOM 13B, FLOOR, 12"X12" TAN	FLOOR TILE	
	246101-68	18	2	HALLWAY	FLOOR, 12"X12" TAN	FLOOR TILE	
	246101-69	19	3	STAIRWELL	ART ROOM LANDING, FLOOR 12"X12" TAN	FLOOR TILE	
	246101-70	19	3	STAIRWELL	ART ROOM LANDING, FLOOR 12"X12" TAN	FLOOR TILE	
	246101-71	20	3	STAIRWELL	ART ROOM LANDING, FLOOR, UNDER 12"X12" FLOOR TILE, ON FIBERBOARD	MASTIC	
	246101-72	20	3	STAIRWELL	ART ROOM LANDING, FLOOR, UNDER 12"X12" FLOOR TILE, ON FIBERBOARD	MASTIC	
3007416	246101-73	21	3	STAIRWELL	ART ROOM LANDING, FLOOR, UNDER FLOOR TILE & MASTIC, ON CONCRETE	FIBERBOARD	
3007417	246101-74	21	3	STAIRWELL	ART ROOM LANDING, FLOOR, UNDER FLOOR TILE & MASTIC, ON CONCRETE	FIBERBOARD	
	246101-75	19/20	1	ROOM 13	FLOOR, ON WOOD, 12"X12"	FLOOR TILE & MASTIC	

Comments:

SUBMITTED BY:

DATE: 06/17/24

RECEIVED BY: M D Warner

DATE: JUN 17 24 21:05

Quality Environmental Solutions and Technologies, Inc.
Bulk Sample Chain of Custody

CLIENT: Union Free School District of Tarrytowns
ADDRESS: 200 North Broadway
Sleepy Hollow, NY 10591

CONTACT: Brian Fried
PROJECT ID: Pre-Contruction Env. Testing & Design
30 Pocantico Street, Sleepy Hollow, NY
PROJECT # : 246101

SAMPLED BY: Z. Timpano, J. Mages, D. Stamper
DATE SAMPLED: 13-Jun-24

ANALYSIS METHOD: PLM, PLM-NOB and/or QTEM
TURN-AROUND TIME: 5 Days

Sample	HM#	Floor	Space Name/ID #	Location	Material	Results
246101-76	22	3	ART ROOM	FLOOR, ON PLYWOOD, 9"X9" TAN	FLOOR TILE & MASTIC	
246101-77	22	3	ART ROOM	FLOOR, ON PLYWOOD, 9"X9" TAN	FLOOR TILE & MASTIC	
246101-78	22	2	ROOM 24	FLOOR, ON WOOD, 9"X9"	FLOOR TILE & MASTIC	
246101-79	22	2	STAIRWELL	FLOOR, ON CONCRETE, 9"X9"	FLOOR TILE	
246101-80	22	2	STAIRWELL	FLOOR, ON CONCRETE, 9"X9"	FLOOR TILE	
246101-81	23	2	BOY'S BATHROOM	WALL ON PLASTER	CERAMIC WALL TILE	
246101-82	23	2	BOY'S BATHROOM	WALL ON PLASTER	CERAMIC WALL TILE	
246101-83	24	2	BOY'S BATHROOM	WALL, ON CERAMIC WALL TILE	GROUT	
246101-84	24	2	BOY'S BATHROOM	WALL, ON CERAMIC WALL TILE	GROUT	
246101-85	25	2	BOY'S BATHROOM	WALL, CERAMIC WALL TILE TO PLASTER	MORTAR	
246101-86	25	2	BOY'S BATHROOM	WALL, CERAMIC WALL TILE TO PLASTER	MORTAR	
246101-87	26	8	HALLWAY TO GYM	WALL ,ON CMU	COVE BASE MOLDING & ADHESIVE	
246101-88	26	8	HALLWAY TO GYM	WALL ,ON CMU	COVE BASE MOLDING & ADHESIVE	
246101-89	27	1	AUDITORIUM HALLWAY	ON PLASTER WALL, 6 INCH BROWN	COVE BASE MOLDING & ADHESIVE	
246101-90	27	1	AUDITORIUM HALLWAY	ON PLASTER WALL, 6 INCH BROWN	COVE BASE MOLDING & ADHESIVE	

3007418
3007419
3007420
3007421
3007422
3007423

Comments:

SUBMITTED BY:

DATE: 06/17/24

RECEIVED BY:

JUN 17'24 21:05
DATE:

Quality Environmental Solutions and Technologies, Inc.
Bulk Sample Chain of Custody

CLIENT: Union Free School District of Tarrytowns
SAMPLED BY: Z. Timpano, J. Mages, D. Stamper
ADDRESS: 200 North Broadway, Sleepy Hollow, NY 10591
DATE SAMPLED: 13-Jun-24
CONTACT: Brian Fried
ANALYSIS METHOD: PLM, PLM-NOB and/or QTEM
PROJECT ID: Pre-Contruction Env. Testing & Design
30 Pocantico Street, Sleepy Hollow, NY
TURN-AROUND TIME: 5 Days
PROJECT # : 246101

Sample	HM#	Floor	Space Name/ID #	Location	Material	Results
246101-91	28	B	BOILER ROOM	UPPER SECTION, PARTITION WALL TO BATHROOM, BRICK TO METAL PIPE	FIRESTOP CAULK	
246101-92	28	B	STORAGE CORRIDOR NEXT TO GYM	METAL PIPE TO CMU	FIRESTOP CAULK	
246101-93	29	B	BOILER ROOM HALLWAY	ON LARGE DIAMTER PIPE TO WALL	CAULK	
246101-94	29	B	BOILER ROOM HALLWAY	ON LARGE DIAMTER PIPE TO WALL	CAULK	
3007424 246101-95	30	B	BOILER ROOM	PERIMETER WALL	CONCRETE	
3007425 246101-96	30	B	BOILER ROOM	PERIMETER WALL	CONCRETE	
3007426 246101-97	31	B	BOILER ROOM	UPPER SECTION, WALL	BRICK	
3007427 246101-98	31	B	FAN ROOM	WALL	BRICK	
3007428 246101-99	32	B	BOILER ROOM	UPPER SECTION, WALL, ON BRICK	MORTAR	
3007429 246101-100	32	B	FAN ROOM	WALL, ON BRICK	MORTAR	
3007430 246101-101	33	B	HALLWAY TO GYM	OUTSIDE STORAGE CORRIDOR, WALL	SHEETROCK	

Comments:

SUBMITTED BY:

DATE: 06/17/24

RECEIVED BY:

DATE: JUN 17 '24 21:05

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/17/2024
Analyzed By : George Htay
Signature :
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		6101-01	6101-02	6101-03	6101-04
Layer Number					
Lab ID Number		3042218	3042219	3042220	3042221
Sample Location		Sub Basement, Boiler Room, Boiler 2, On Metal Section	Sub Basement, Boiler Room, Boiler 2, On Metal Section	Sub Basement, Boiler Room, Boiler 2, On Metal Section	Sub Basement, Boiler Room, Boiler 2, Boiler 2, In Between Metal Sections
Sample Description		Cementitious Packing	Cementitious Packing	Cementitious Packing	Rope Gasket
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Point Count
Appearance	Layered	No	No	No	No
	Homogenous	No	No	No	No
	Fibrous	Yes	Yes	Yes	Yes
	Color	Gray	Gray	Gray	Brown
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	66.7
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	66.7
Other Fibrous Materials Present	% Fibrous Glass	25.0	30.0	25.0	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	15.0	10.0	15.0	ND
	% Carbonates	20.0	20.0	25.0	ND
	% Other	ND	ND	ND	ND
	% Unidentified	40.0	40.0	35.0	33.3

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Liability Limited To Cost Of Analysis. This Report Must Not be Used by the Client to Claim Product Endorsement by NVLAP or Any Agency of the US Government.
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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/17/2024
Analyzed By : George Htay
Signature :
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		6101-05	6101-06	6101-07	6101-20
Layer Number					
Lab ID Number		3042222	3042223	3042224	3042225
Sample Location		Sub Basement, Boiler Room, Boiler 2, Boiler 2, In Between Metal Sections	Exterior, Roof, Flat, Deck	Exterior, Roof, Flat, Deck	Exterior, Roof, Flat, Field, Second Layer, On ISO Insulation
Sample Description		Rope Gasket	Concrete	Concrete	Fiber Board and Tar (Fiber Board Layer)
Method of Quantification		Point Count	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	No	No	No	No
	Homogenous	No	No	No	No
	Fibrous	Yes	No	No	Yes
	Color	Brown	Gray/Brown	Gray/Brown	Gray/White
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	57.1	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	57.1	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	40.0
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	ND	35.0	35.0	20.0
	% Carbonates	ND	20.0	25.0	ND
	% Other	ND	ND	ND	ND
	% Unidentified	42.9	45.0	40.0	40.0

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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/17/2024
Analyzed By : George Htay
Signature :
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number	6101-21
Layer Number	
Lab ID Number	3042226
Sample Location	Exterior, Roof, Flat, Field, Second Layer, On ISO Insulation
Sample Description	Fiber Board and Tar (Fiber Board Layer)

Method of Quantification		Scanning Option
Appearance	Layered	No
	Homogenous	No
	Fibrous	Yes
	Color	Gray/White
Sample Treatment		Homogenized
Asbestos Content	% Amosite	ND
	% Chrysotile	ND
	% Other	ND
	% Total Asbestos	ND
Other Fibrous Materials Present	% Fibrous Glass	ND
	% Cellulose	45.0
	% Other	ND
	% Unidentified	ND
Non-Fibrous Materials Present	% Silicates	15.0
	% Carbonates	ND
	% Other	ND
	% Unidentified	40.0

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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/16/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		6101-08	6101-09	6101-10	6101-11
Layer Number					
Lab ID Number		3042139	3042140	3042141	3042142
Sample Location		Exterior, Roof, Pitched, Upper, Equipment Flashing, Bottom Layer, On Metal	Exterior, Roof, Pitched, Upper, Equipment Flashing, Bottom Layer, On Metal	Exterior, Roof, Pitched (Shingled), Equipmt Flashing, Bottom Layer, On Wood Deck	Exterior, Roof, Pitched (Shingled), Equipmt Flashing, Bottom Layer, On Wood Deck
Sample Description		ISO Insulation	ISO Insulation	Tar Paper Vapor Barrier	Tar Paper Vapor Barrier
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	Yes	Yes
	Color	Yellow	Yellow	Black	Black
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND Inconclusive	ND Inconclusive
Other Materials Present	% Organic	99.2	99.5	58.6	57.9
	% Carbonates	0.5	0.4	12.7	14.0
	% Other Inorganic	0.3	0.1	28.7	28.1

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Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/16/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		6101-12	6101-13	6101-14	6101-15
Layer Number					
Lab ID Number		3042143	3042144	3042145	3042146
Sample Location		Exterior, Roof, Pitched (Shingled), Equipmt Flashing, Top Layer, On Tar Paper Vapor Barrier	Exterior, Roof, Pitched (Shingled), Equipmt Flashing, Top Layer, On Tar Paper Vapor Barrier	Exterior, Roof, Pitched, Upper, Equipmt Flashing, Top Layer, On ISO Foam	Exterior, Roof, Pitched, Upper, Equipmt Flashing, Top Layer, On ISO Foam
Sample Description		Shingle	Shingle	EPDM	EPDM
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	Yes	Yes	No	No
	Homogenous	No	No	Yes	Yes
	Fibrous	Yes	Yes	Yes	Yes
	Color	Black/Gray	Black	Black	Black
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND Inconclusive	ND Inconclusive	ND Inconclusive	ND Inconclusive
Other Materials Present	% Organic	23.2	23.0	71.9	72.9
	% Carbonates	45.5	30.5	2.6	ND
	% Other Inorganic	31.3	46.5	25.5	27.1

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Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/16/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		6101-16	6101-17	6101-18	6101-19
Layer Number					
Lab ID Number		3042147	3042148	3042149	3042150
Sample Location		Exterior, Roof, Flat, Field, Third Layer, On Concrete Deck	Exterior, Roof, Flat, Field, Third Layer, On Concrete Deck	Exterior, Roof, Flat, Parapet Wall, Third Layer, On Tar	Exterior, Roof, Flat, Parapet Wall, Third Layer, On Tar
Sample Description		ISO Insulation	ISO Insulation	Built Up Roofing	Built Up Roofing
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Yellow	Yellow	Black	Black
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND Inconclusive	ND Inconclusive
Other Materials Present	% Organic	97.9	98.6	72.3	77.3
	% Carbonates	1.6	0.6	3.6	1.2
	% Other Inorganic	0.5	0.8	24.1	21.5

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Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/16/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		6101-20	6101-21	6101-22	6101-23
Layer Number					
Lab ID Number		3042151	3042152	3042153	3042154
Sample Location		Exterior, Roof, Flat, Field, Second Layer, On ISO Insulation	Exterior, Roof, Flat, Field, Second Layer, On ISO Insulation	Exterior, Roof, Flat, Field, Top Layer	Exterior, Roof, Flat, Parapet Wall, Top Layer
Sample Description		Fiberboard & Tar (Tar Layer)	Fiberboard & Tar (Tar Layer)	Rolled Roofing	Rolled Roofing
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	No	No	Yes	Yes
	Homogenous	Yes	Yes	No	No
	Fibrous	No	No	Yes	Yes
	Color	Black	Black	Black/White	Black/White
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND Inconclusive	ND Inconclusive	ND Inconclusive	ND Inconclusive
Other Materials Present	% Organic	67.3	71.4	33.8	33.2
	% Carbonates	14.2	20.6	18.3	20.2
	% Other Inorganic	18.5	8.0	47.9	46.6

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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/16/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		6101-24	6101-25	6101-26	6101-27
Layer Number					
Lab ID Number		3042155	3042156	3042157	3042158
Sample Location		Exterior, Roof, Flat, Parapet Wall, Bottom Layer, On Brick & Mortar	Exterior, Roof, Flat, Parapet Wall, Bottom Layer, On Brick & Mortar	Exterior, Courtyard, Window, Frame, Metal to Brick & Mortar	Exterior, Courtyard, Window, Frame, Metal to Brick & Mortar
Sample Description		Tar	Tar	Caulk	Caulk
Analytical Method		NOB Plm	NOB Plm	NOB Plm	NOB Plm
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Black	Black	Gray	Gray
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND Inconclusive	ND Inconclusive	ND Inconclusive	ND Inconclusive
Other Materials Present	% Organic	79.0	76.9	72.3	72.1
	% Carbonates	0.2	4.8	17.9	17.9
	% Other Inorganic	20.8	18.3	9.8	10.0

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Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/16/2024
Analyzed By : Damien Warner
Signature :
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		6101-28	6101-29
Layer Number			
Lab ID Number		3042159	3042160
Sample Location		Exterior, Main Entry, Door, Frame, Metal to Decorative Stone	Exterior, Main Entry, Door, Frame, Metal to Decorative Stone
Sample Description		Caulk	Caulk
Analytical Method		NOB Plm	NOB Plm
Appearance	Layered	No	No
	Homogenous	Yes	Yes
	Fibrous	No	No
	Color	Gray	Gray
Asbestos Content	% Amosite	ND	ND
	% Chrysotile	ND	ND
	% Other	ND	ND
	% Total Asbestos	ND Inconclusive	ND Inconclusive
Other Materials Present	% Organic	47.9	48.5
	% Carbonates	49.3	48.7
	% Other Inorganic	2.8	2.8

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Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/17/2024
Analyzed By : Fahrudin Lalic
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		6101-10	6101-11	6101-12	6101-13
Layer Number					
Lab ID Number		3042141	3042142	3042143	3042144
Sample Location		Exterior, Roof, Pitched (Shingled), Equipmt Flashing, Bottom Layer, On Wood Deck	Exterior, Roof, Pitched (Shingled), Equipmt Flashing, Bottom Layer, On Wood Deck	Exterior, Roof, Pitched (Shingled), Equipmt Flashing, Top Layer, On Tar Paper Vapor Barrier	Exterior, Roof, Pitched (Shingled), Equipmt Flashing, Top Layer, On Tar Paper Vapor Barrier
Sample Description		Tar Paper Vapor Barrier	Tar Paper Vapor Barrier	Shingle	Shingle
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	No	No	Yes	Yes
	Homogenous	Yes	Yes	No	No
	Fibrous	Yes	Yes	Yes	Yes
	Color	Black	Black	Black/Gray	Black
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Materials Present	% Organic	58.6	57.9	23.2	23.0
	% Carbonates	12.7	14.0	45.5	30.5
	% Other Inorganic	28.7	28.1	31.3	46.5

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Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/17/2024
Analyzed By : Fahrudin Lalic
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		6101-14	6101-15	6101-18	6101-19
Layer Number					
Lab ID Number		3042145	3042146	3042149	3042150
Sample Location		Exterior, Roof, Pitched, Upper, Equipmt Flashing, Top Layer, On ISO Foam	Exterior, Roof, Pitched, Upper, Equipmt Flashing, Top Layer, On ISO Foam	Exterior, Roof, Flat, Parapet Wall, Third Layer, On Tar	Exterior, Roof, Flat, Parapet Wall, Third Layer, On Tar
Sample Description		EPDM	EPDM	Built Up Roofing	Built Up Roofing
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	Yes	Yes	No	No
	Color	Black	Black	Black	Black
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Materials Present	% Organic	71.9	72.9	72.3	77.3
	% Carbonates	2.6	ND	3.6	1.2
	% Other Inorganic	25.5	27.1	24.1	21.5

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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/17/2024
Analyzed By : Fahrudin Lalic
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		6101-20	6101-21	6101-22	6101-23
Layer Number					
Lab ID Number		3042151	3042152	3042153	3042154
Sample Location		Exterior, Roof, Flat, Field, Second Layer, On ISO Insulation	Exterior, Roof, Flat, Field, Second Layer, On ISO Insulation	Exterior, Roof, Flat, Field, Top Layer	Exterior, Roof, Flat, Parapet Wall, Top Layer
Sample Description		Fiberboard & Tar (Tar Layer)	Fiberboard & Tar (Tar Layer)	Rolled Roofing	Rolled Roofing
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	No	No	Yes	Yes
	Homogenous	Yes	Yes	No	No
	Fibrous	No	No	Yes	Yes
	Color	Black	Black	Black/White	Black/White
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Materials Present	% Organic	67.3	71.4	33.8	33.2
	% Carbonates	14.2	20.6	18.3	20.2
	% Other Inorganic	18.5	8.0	47.9	46.6

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory. Samples received in acceptable condition unless otherwise noted. ND = Not Detected. Liability Limited To Cost Of Analysis. This Report Must Not be Used by the Client to Claim Product Endorsement by NVLAP or Any Agency of the US Government.
AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/17/2024
Analyzed By : Fahrudin Lalic
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Sample ID Number		6101-24	6101-25	6101-26	6101-27
Layer Number					
Lab ID Number		3042155	3042156	3042157	3042158
Sample Location		Exterior, Roof, Flat, Parapet Wall, Bottom Layer, On Brick & Mortar	Exterior, Roof, Flat, Parapet Wall, Bottom Layer, On Brick & Mortar	Exterior, Courtyard, Window, Frame, Metal to Brick & Mortar	Exterior, Courtyard, Window, Frame, Metal to Brick & Mortar
Sample Description		Tar	Tar	Caulk	Caulk
Analytical Method		NOB Tem	NOB Tem	NOB Tem	NOB Tem
Appearance	Layered	No	No	No	No
	Homogenous	Yes	Yes	Yes	Yes
	Fibrous	No	No	No	No
	Color	Black	Black	Gray	Gray
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Materials Present	% Organic	79.0	76.9	72.3	72.1
	% Carbonates	0.2	4.8	17.9	17.9
	% Other Inorganic	20.8	18.3	9.8	10.0

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory. Samples received in acceptable condition unless otherwise noted. ND = Not Detected. Liability Limited To Cost Of Analysis. This Report Must Not be Used by the Client to Claim Product Endorsement by NVLAP or Any Agency of the US Government.
AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - UFSD of Tarrytown - Pre-Construction Environmental Testing - W.L. Morse Elementary School - 30 Pocantico Street - Sleepy Hollow, NY

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 10/14/2024
Collected By : S. Talsma
Date Received : 10/15/2024
Date Analyzed : 10/17/2024
Analyzed By : Fahrudin Lalic
Signature :
Analytical Method : NYS-DOH 198.4
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		6101-28	6101-29
Layer Number			
Lab ID Number		3042159	3042160
Sample Location		Exterior, Main Entry, Door, Frame, Metal to Decorative Stone	Exterior, Main Entry, Door, Frame, Metal to Decorative Stone
Sample Description		Caulk	Caulk
Analytical Method		NOB Tem	NOB Tem
Appearance	Layered	No	No
	Homogenous	Yes	Yes
	Fibrous	No	No
	Color	Gray	Gray
Asbestos Content	% Amosite	ND	ND
	% Chrysotile	ND	ND
	% Other	ND	ND
	% Total Asbestos	ND	ND
Other Materials Present	% Organic	47.9	48.5
	% Carbonates	49.3	48.7
	% Other Inorganic	2.8	2.8

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory. Samples received in acceptable condition unless otherwise noted. ND = Not Detected. Liability Limited To Cost Of Analysis. This Report Must Not be Used by the Client to Claim Product Endorsement by NVLAP or Any Agency of the US Government.
AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Quality Environmental Solutions and Technologies, Inc.
Bulk Sample Chain of Custody

CLIENT:	UFSD of Tarrytown	PROJECT # :	24-6101
ADDRESS:	200 North Broadway	SAMPLED BY:	S. Talsma
	Sleepy Hollow, NY 10591		
CONTACT:	Brian Fried	DATE SAMPLED:	14-Oct-24
		STATE SAMPLED IN:	New York
PROJECT NAME:	Pre-Construction Environmental Testing	ANALYSIS METHOD:	PLM/PLM-NOB/QTEM as required.
PROJECT BUILDING:	W.L. Morse Elementary School		
PROJECT ADDRESS:	30 Pocantico Street	TURN-AROUND TIME:	5 DAYS
	Sleepy Hollow, NY 10591		

Sample #	HM#	Floor	Space Name/ID #	Location	Material	Results
6305-01		Sub Basement	Boiler room	Boiler 2, On Metal Section	Cementitious Packing	3042218
6305-02		Sub Basement	Boiler room	Boiler 2, On Metal Section	Cementitious Packing	3042219
6305-03		Sub Basement	Boiler room	Boiler 2, On Metal Section	Cementitious Packing	3042220
6305-04		Sub Basement	Boiler room	Boiler 2, In Between Metal Sections	Rope Gasket	3042221
6305-05		Sub Basement	Boiler room	Boiler 2, In Between Metal Sections	Rope Gasket	3042222
6305-06		Exterior, Roof	Flat	Deck	Concrete	3042223
6305-07		Exterior, Roof	Flat	Deck	Concrete	3042224
6305-08		Exterior, Roof	Pitched, Upper	Equipment Flashing, Bottom Layer, On Metal	ISO Insulation	
6305-09		Exterior, Roof	Pitched, Upper	Equipment Flashing, Bottom Layer, On Metal	ISO Insulation	
6305-10		Exterior, Roof	Pitched(Shingled)	Bottom Layer, On Wood Deck	Tar Paper Vapor Barrier	
6305-11		Exterior, Roof	Pitched(Shingled)	Bottom Layer, On Wood Deck	Tar Paper Vapor Barrier	
6305-12		Exterior, Roof	Pitched(Shingled)	Top Layer, On Tar Paper Vapor Barrier	Shingle	
6305-13		Exterior, Roof	Pitched(Shingled)	Top Layer, On Tar Paper Vapor Barrier	Shingle	
6305-14		Exterior, Roof	Pitched, Upper	Equipment Flashing, Top Layer, On ISO Foam	EPDM	
6305-15		Exterior, Roof	Pitched, Upper	Equipment Flashing, Top Layer, On ISO Foam	EPDM	

AS LABELED ON PAPERWORK
INITIAL/DATE MP, 10/16/2024

Comments:

SUBMITTED BY:

DATE: 15 OCT 2024

RECEIVED BY:

OCT 15 '24 19:57

DATE:

Quality Environmental Solutions and Technologies, Inc.
Bulk Sample Chain of Custody

CLIENT:	UFSD of Tarrytown	PROJECT # :	24-6101
ADDRESS:	200 North Broadway	SAMPLED BY:	S. Talsma
	Sleepy Hollow, NY 10591		
CONTACT:	Brian Fried	DATE SAMPLED:	14-Oct-24
		STATE SAMPLED IN:	New York
PROJECT NAME:	Pre-Construction Environmental Testing	ANALYSIS METHOD:	PLM/PLM-NOB/QTEM as required.
PROJECT BUILDING:	W.L. Morse Elementary School		
PROJECT ADDRESS:	30 Pocantico Street	TURN-AROUND TIME:	5 DAYS
	Sleepy Hollow, NY 10591		

Sample #	HM#	Floor	Space Name/ID #	Location	Material	Results
6305-16		Exterior, Roof	Flat	Field, Third Layer, On Concrete Deck	ISO Insulation	
6305-17		Exterior, Roof	Flat	Field, Third Layer, On Concrete Deck	ISO Insulation	
6305-18		Exterior, Roof	Flat	Parapet Wall, Third Layer, On Tar	Built Up Roofing	
6305-19		Exterior, Roof	Flat	Parapet Wall, Third Layer, On Tar	Built Up Roofing	
6305-20		Exterior, Roof	Flat	Field, Second Layer, On ISO Insulation	Fiber Board and Tar (SEPARATE LAYERS)	3042225
6305-21		Exterior, Roof	Flat	Field, Second Layer, On ISO Insulation	Fiber Board and Tar (SEPARATE LAYERS)	3042226
6305-22		Exterior, Roof	Flat	Field, Top Layer	Rolled Roofing	
6305-23		Exterior, Roof	Flat	Parapet Wall, Top Layer	Rolled Roofing	
6305-24		Exterior, Roof	Flat	Parapet Wall, Bottom Layer, On Brick & Mortar	Tar	
6305-25		Exterior, Roof	Flat	Parapet Wall, Bottom Layer, On Brick & Mortar	Tar	
6305-26		Exterior	Courtyard	Window, Frame, Metal to Brick & Mortar	Caulk	
6305-27		Exterior	Courtyard	Window, Frame, Metal to Brick & Mortar	Caulk	
6305-28		Exterior	Main Entry	Door, Frame, Metal to Decorative Stone	Caulk	
6305-29		Exterior	Main Entry	Door, Frame, Metal to Decorative Stone	Caulk	

Comments:

SUBMITTED BY: DATE: 15Oct2024

RECEIVED BY: OCT 15'24 10:57 DATE:

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytown - Pre-Construction Environmental Testing and Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 12/09/2024
Collected By : Z. Timpano
Date Received : 12/10/2024
Date Analyzed : 12/13/2024
Analyzed By : George Htay
Signature : _
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage ,Lab Director

Sample ID Number		6101-DEC-01	6101-DEC-01	6101-DEC-02	6101-DEC-02
Layer Number		1	2	1	2
Lab ID Number		3053311	3053311	3053312	3053312
Sample Location		Basement, Boy's Locker Room, Wall, On CMU	Basement, Boy's Locker Room, Wall, On CMU	Basement, Boy's Locker Room, Wall, On CMU	Basement, Boy's Locker Room, Wall, On CMU
Sample Description		Ceramic Wall Tile, Grout, & Adhesive (Tile Layer)	Ceramic Wall Tile, Grout, & Adhesive (Grout Layer)	Ceramic Wall Tile, Grout, & Adhesive (Tile Layer)	Ceramic Wall Tile, Grout, & Adhesive (Grout Layer)
Method of Quantification		Scanning Option	Point Count	Scanning Option	Point Count
Appearance	Layered	Yes	Yes	Yes	Yes
	Homogenous	No	No	No	No
	Fibrous	No	Yes	No	Yes
	Color	White/Yellow	Gray/Black	White/Yellow	Gray/Black
Sample Treatment		Homogenized	Homogenized	Homogenized	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	2.7	ND	2.5
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	2.7	ND	2.5
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	35.0	ND	35.0	ND
	% Carbonates	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	65.0	97.3	65.0	97.5

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory. ND = Not Detected. Reporting Limit is <1%.
Liability Limited To Cost Of Analysis. This Report Must Not be Used by the Client to Claim Product Endorsement by NVLAP or Any Agency of the US Government.
These Results Can Not Be Used To Claim That NOB Items Tested Are Non-Asbestos Containing. Overall Lab Accuracy ± 17%. Samples received in acceptable condition unless otherwise noted.
AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytown - Pre-Construction Environmental Testing and Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 12/09/2024
Collected By : Z. Timpano
Date Received : 12/10/2024
Date Analyzed : 12/13/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		6101-DEC-03	6101-DEC-03	6101-DEC-03	6101-DEC-04
Layer Number		1	2	3	1
Lab ID Number		3053313	3053313	3053313	3053314
Sample Location		Basement, Boy's Locker Room, Floor, On Slab	Basement, Boy's Locker Room, Floor, On Slab	Basement, Boy's Locker Room, Floor, On Slab	Basement, Boy's Locker Room, Floor, On Slab
Sample Description		Ceramic Floor Tile, Grout, & Mudset (Tile Layer)	Ceramic Floor Tile, Grout, & Mudset (Grout Layer)	Ceramic Floor Tile, Grout, & Mudset (Mudset Layer)	Ceramic Floor Tile, Grout, & Mudset (Tile Layer)
Method of Quantification		Scanning Option	Scanning Option	Scanning Option	Scanning Option
Appearance	Layered	Yes	No	No	Yes
	Homogenous	No	Yes	Yes	No
	Fibrous	No	No	Yes	No
	Color	Tan/Brown	Gray	Brown/Gray	Tan/Brown
Sample Treatment		Homogenized	None	None	Homogenized
Asbestos Content	% Amosite	ND	ND	ND	ND
	% Chrysotile	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Total Asbestos	ND	ND	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND	ND	ND
	% Cellulose	ND	ND	ND	ND
	% Other	ND	ND	ND	ND
	% Unidentified	ND	ND	ND	ND
Non-Fibrous Materials Present	% Silicates	40.0	30.0	25.0	40.0
	% Carbonates	ND	20.0	30.0	ND
	% Other	ND	ND	ND	ND
	% Unidentified	60.0	50.0	45.0	60.0

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AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytown - Pre-Construction Environmental Testing and Design - 30 Pocantico St - Sleepy Hollow, NY

Client: QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 12/09/2024
Collected By : Z. Timpano
Date Received : 12/10/2024
Date Analyzed : 12/13/2024
Analyzed By : George Htay
Signature : _____
Analytical Method : NYS-DOH 198.1
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage _____,Lab Director

Sample ID Number		6101-DEC-04	6101-DEC-04
Layer Number		2	3
Lab ID Number		3053314	3053314
Sample Location		Basement, Boy's Locker Room, Floor, On Slab	Basement, Boy's Locker Room, Floor, On Slab
Sample Description		Ceramic Floor Tile, Grout, & Mudset (Grout Layer)	Ceramic Floor Tile, Grout, & Mudset (Mudset Layer)
Method of Quantification		Scanning Option	Scanning Option
Appearance	Layered	No	No
	Homogenous	Yes	Yes
	Fibrous	No	No
	Color	Gray	Brown/Gray
Sample Treatment		None	None
Asbestos Content	% Amosite	ND	ND
	% Chrysotile	ND	ND
	% Other	ND	ND
	% Total Asbestos	ND	ND
Other Fibrous Materials Present	% Fibrous Glass	ND	ND
	% Cellulose	ND	ND
	% Other	ND	ND
	% Unidentified	ND	ND
Non-Fibrous Materials Present	% Silicates	25.0	20.0
	% Carbonates	20.0	30.0
	% Other	ND	ND
	% Unidentified	55.0	50.0

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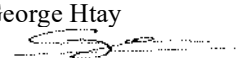
AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Eastern Analytical Services, Inc.

Bulk Sample Results

RE: CPN 246101 - Union Free School District of Tarrytown - Pre-Construction Environmental Testing and Design - 30 Pocantico St - Sleepy Hollow, NY

Client QuES&T, Inc.
1376 Route 9
Wappingers Falls, NY 12590

Date Collected : 12/10/2024
Collected By : Z. Timpano
Date Received : 12/10/2024
Date Analyzed : 12/11/2024
Analyzed By : George Htay
Signature : 
Analytical Method : NYS-DOH 198.6
NVLAP Lab Code : 101646-0 (Testing)
NYS Lab No. 10851
Paul Stascavage  ,Lab Director

Sample ID Number		6101-DEC-01	6101-DEC-02
Layer Number			
Lab ID Number		3053061	3053062
Sample Location		Basement, Boy's Locker Room, Wall, On CMU	Basement, Boy's Locker Room, Wall, On CMU
Sample Description		Ceramic Wall Tile, Grout & Adhesive (Adhesive Layer)	Ceramic Wall Tile, Grout & Adhesive (Adhesive Layer)
Analytical Method		NOB Plm	NOB Plm
Appearance	Layered	Yes	Yes
	Homogenous	No	No
	Fibrous	No	No
	Color	Gray/Black	Gray/Black
Asbestos Content	% Amosite	ND	ND
	% Chrysotile	2.0	3.2
	% Other	ND	ND
	% Total Asbestos	2.0	3.2
Other Materials Present	% Organic	45.7	47.7
	% Carbonates	17.4	16.0
	% Other Inorganic	34.9	33.1

Results Applicable To Those Items Tested. Report Cannot be Reproduced, Except Entirely, Without Written Approval of the Laboratory. Samples received in acceptable condition unless otherwise noted. ND = Not Detected.
Liability Limited To Cost Of Analysis. This Report Must Not be Used by the Client to Claim Product Endorsement by NVLAP or Any Agency of the US Government.
These Results Cannot Be Used To Claim That NOB Items Tested Are Non-Asbestos Containing (Unless "% Other Inorganic", As Reported Above, Is Less Than One Percent).
This method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.
AIHA LAP, LLC No. 100263 Rhode Island DOH No. AAL-072 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AL-709936

Quality Environmental Solutions and Technologies, Inc.
Bulk Sample Chain of Custody

CLIENT: Union Free School District of Tarrytowns
SAMPLED BY: Z.Timpano

ADDRESS: 200 North Broadway
Sleepy Hollow, NY 10591
DATE SAMPLED: 9-Dec-24

CONTACT: Brian Fried
ANALYSIS METHOD: PLM, PLM-NOB and/or QTEM

PROJECT ID: Pre-Contruction Env. Testing & Design
30 Pocantico Street, Sleepy Hollow, NY
TURN-AROUND TIME: 5 Days

PROJECT #: 246101

Sample	HM#	Floor	Space Name/ID #	Location	Material	Results
6101-DEC-01		BSMT	Boy's Locker Room	Wall, on CMU	Ceramic Wall Tile, Grout, + Adhesive (Separate Layers)	3053311
6101-DEC-02		BSMT	Boy's Locker Room	Wall, on CMU	Ceramic Wall Tile, Grout, + Adhesive (Separate Layers)	3053312
6101-DEC-03		BSMT	Boy's Locker Room	Floor, on Slab	Ceramic Floor Tile, Grout, + Mudset (Separate Layers)	3053313
6101-DEC-04		BSMT	Boy's Locker Room	Floor, on Slab	Ceramic Floor Tile, Grout, + Mudset (Separate Layers)	3053314
AS LABELED ON PAPERWORK						
* INITIALS/DATE: MP, 12/12/2024						
Comments:						

SUBMITTED BY: [signature]
DATE: 12/10/24

RECEIVED BY: M D Warner
DEC 12 24 24:06
DATE:

QuES&T
Quality Environmental Solutions & Technologies, Inc.

Appendix C:

XRF ANALYTICAL DATA

1376 Route 9, Wappingers Falls, NY 12590 Phone (845) 298-6031 Fax (845) 298-6251
NYS MWBD MBE Cert # 49952-2006 NYSUCP DBE Certified NJUCP DBE Certified www.Qualityenv.com

XRF Results

QuES&T
Union Free School District of Tarrytowns
W.L. Morse Elementary School
30 Pocantico Street, Sleepy Hollow, NY 10591
24-6101

Sample	Building/Address	Interior/Exterior	Floor	Space/Room/Description	Object	Component	Substrate	Color	Condition	Result	Pb Concentration (mg/cm2)
1	NIST (<0.01)									Negative	0.2
2	**NIST (1.04 +/- 0.06)**									**Positive**	1
3	W.L Morse Elementary	Interior	B	Custodial Office	Door	Door	Metal	Grey	Good	Negative	0.1
4	W.L Morse Elementary	Interior	B	Custodial Office	Door	Frame	Metal	Red	Intact	Negative	0
5	W.L Morse Elementary	Interior	B	Custodial Office	Wall	Wall	Block	Beige	Poor	Negative	-0.2
6	W.L Morse Elementary	Interior	B	Custodial Office	Door	Door	Metal	White	Good	Negative	0.4
7	W.L Morse Elementary	Interior	B	Custodial Office	Door	Frame	Metal	White	Good	Negative	-0.1
8	W.L Morse Elementary	Interior	B	Custodial Office	Wall	Wall	Block	White	Good	Negative	0.1
9	W.L Morse Elementary	Interior	B	Custodial Office	Door	Door	Metal	White	Good	Negative	0.5
10	W.L Morse Elementary	Interior	B	Custodial Office	Door	Frame	Metal	Red	Good	Negative	0.2
11	W.L Morse Elementary	Interior	B	Custodial Office	Wall	Wall	Wood	Green	Good	Negative	0
12	W.L Morse Elementary	Interior	B	Boiler Room	Door	Door	Metal	Grey	Good	Negative	0.6
13	W.L Morse Elementary	Interior	B	Boiler Room	Door	Frame	Metal	Red	Good	Negative	0
14	W.L Morse Elementary	Interior	B	Boiler Room	Stairs	Stair	Metal	Red	Good	Negative	0
15	W.L Morse Elementary	Interior	B	Boiler Room	Door	Door	Wood	Green	Good	Negative	0.3
16	W.L Morse Elementary	Interior	B	Boiler Room	Wall	Wall	Wood	White	Good	Negative	0
17	W.L Morse Elementary	Interior	B	Boiler Room	Boiler 2	Boiler	Metal	Blue	Good	Negative	0
18	W.L Morse Elementary	Interior	B	Boiler Room	Boiler 1	Boiler	Metal	Blue	Good	Negative	-0.1
19	W.L Morse Elementary	Interior	B	Boiler Room	Boiler 1	Power Flame	Metal	Blue	Good	Negative	0.1
20	W.L Morse Elementary	Interior	B	Boiler Room	Boiler 1	Insulation	Insulation	Grey/White	Good	Negative	-0.1
21	W.L Morse Elementary	Interior	B	Boiler Room	Entry Door	Door	Metal	Grey	Good	Negative	0.1
22	W.L Morse Elementary	Interior	B	Boiler Room	Entry Door	Frame	Metal	Grey	Good	Negative	0.3
23	**W.L Morse Elementary**	**Interior**	**B**	**Boiler Room**	**Wall**	**Wall**	**Block**	**White**	**Good**	**Positive**	**3.2**
24	**W.L Morse Elementary**	**Interior**	**B**	**Eletrical Panel Room**	**Door**	**Door**	**Wood**	**Grey**	**Good**	**Positive**	**8.4**
25	**W.L Morse Elementary**	**Interior**	**B**	**Eletrical Panel Room**	**Door**	**Frame**	**Wood**	**White**	**Good**	**Positive**	**9.4**
26	**W.L Morse Elementary**	**Interior**	**B**	**Bathroom**	**Wall**	**Wall**	**Wood Panel**	**Beige**	**Good**	**Positive**	**11.4**
27	**W.L Morse Elementary**	**Interior**	**B**	**Bathroom**	**Wall**	**Wall**	**Metal Bars**	**Beige**	**Good**	**Positive**	**9.4**
28	**W.L Morse Elementary**	**Interior**	**B**	**Eletrical Panel Room**	**Wall**	**Wall**	**Brick**	**White**	**Good**	**Positive**	**4.1**
29	**W.L Morse Elementary**	**Interior**	**B**	**Eletrical Panel Room**	**Pipe**	**Pipe**	**Metal**	**White**	**Good**	**Positive**	**9.7**
30	W.L Morse Elementary	Interior	B	Eletrical Panel Room	Window	Window	Metal	Grey	Good	Negative	0.1
31	**W.L Morse Elementary**	**Interior**	**B**	**Eletrical Panel Room**	**Window**	**Frame**	**Wood**	**White**	**Good**	**Positive**	**6.5**
32	W.L Morse Elementary	Interior	B	Eletrical Panel Room	Door	Door	Metal	White	Good	Negative	0
33	W.L Morse Elementary	Interior	B	Eletrical Panel Room	Door	Frame	Metal	White	Good	Negative	0.1
34	**W.L Morse Elementary**	**Interior**	**B**	**Boiler Room Hallway**	**Wall**	**Wall**	**Block**	**White**	**Good**	**Positive**	**10**
35	W.L Morse Elementary	Interior	B	Boiler Room Hallway	Door	Door	Wood	White	Good	Negative	0
36	W.L Morse Elementary	Interior	B	Boiler Room Hallway	Door	Frame	Metal	White	Good	Negative	-0.1
37	W.L Morse Elementary	Interior	B	Cafeteria Hallway	Wall	Lower	Panel	Blue	Good	Negative	0.1
38	**W.L Morse Elementary**	**Interior**	**B**	**Cafeteria Hallway**	**Wall**	**Upper**	**Wood**	**White**	**Good**	**Positive**	**4.7**
39	W.L Morse Elementary	Interior	B	Copier Area	Wall	Wall	Sheetrock	White	Good	Negative	-0.2
40	W.L Morse Elementary	Interior	B	Copier Area	Door	Door	Metal	Brown	Good	Negative	0
41	W.L Morse Elementary	Interior	B	Copier Area	Door	Frame	Metal	Brown	Good	Negative	-0.1
42	W.L Morse Elementary	Interior	B	Gym Storage Area	Wall	Wall	Block	Green	Good	Negative	0.3
43	W.L Morse Elementary	Interior	B	Gym Storage Area	Wall	Frame	Metal	Grey	Good	Negative	0.6

XRF Results

QuES&T
Union Free School District of Tarrytowns
W.L. Morse Elementary School
30 Pocantico Street, Sleepy Hollow, NY 10591
24-6101

Sample	Building/Address	Interior/Exterior	Floor	Space/Room/Description	Object	Component	Substrate	Color	Condition	Result	Pb Concentration (mg/cm2)
44	W.L Morse Elementary	Interior	B	Gym Storage Area	Wall	Wall	Sheetrock	Grey	Good	Negative	-0.1
45	W.L Morse Elementary	Interior	B	Gym Storage Area	Door	Door	Metal	Beige	Good	Negative	0
46	W.L Morse Elementary	Interior	B	Gym Storage Area	Door	Frame	Metal	Beige	Good	Negative	-0.1
47	W.L Morse Elementary	Interior	B	Gym Storage Area	Electrical Panel	Door	Metal	Beige	Good	Negative	0.2
48	**W.L Morse Elementary**	**Interior**	**B**	**Gym**	**Wall**	**Wall**	**Wood**	**White**	**Good**	**Positive**	**9.6**
49	**W.L Morse Elementary**	**Interior**	**B**	**Gym**	**Wall**	**Wall**	**Wood**	**White**	**Good**	**Positive**	**5.6**
50	W.L Morse Elementary	Interior	B	Gym	Door	Door	Metal	White	Good	Negative	0
51	W.L Morse Elementary	Interior	B	Gym	Door	Frame	Metal	White	Good	Negative	0
52	**W.L Morse Elementary**	**Interior**	**B**	**Stairwell to Gym**	**Stairs**	**Railing**	**Metal**	**Brown**	**Good**	**Positive**	**7.1**
53	W.L Morse Elementary	Interior	B	Stairwell to Gym - Lower	Stairs	Step	Metal	Grey	Good	Negative	0.1
54	W.L Morse Elementary	Interior	B	Stairwell to Gym - Upper	Door	Door	Metal	Brown	Good	Negative	-0.1
55	W.L Morse Elementary	Interior	B	Stairwell to Gym - Upper	Door	Frame	Metal	White	Good	Negative	0.5
56	**W.L Morse Elementary**	**Interior**	**B**	**Stairwell to Gym - Upper**	**Wall**	**Wall**	**Wood Panel**	**White**	**Good**	**Positive**	**9.7**
57	W.L Morse Elementary	Interior	B	Gym Storage Area	Floor	Floor	Concrete	Grey	Good	Negative	1
58	W.L Morse Elementary	Interior	1	Main Entry	Door	Door	Metal	Grey	Good	Negative	0.1
59	W.L Morse Elementary	Interior	1	Main Entry	Door	Door	Metal	Blue	Good	Negative	0
60	W.L Morse Elementary	Interior	1	Main Entry	Wall	Wall	Concrete	White	Good	Negative	-0.2
61	W.L Morse Elementary	Interior	1	Main Entry	Window	Frame	Wood	L. Brown	Good	Negative	0.1
62	W.L Morse Elementary	Interior	1	Stairwell to 2nd	Wall	Wall	Concrete	White	Good	Negative	0.1
63	**W.L Morse Elementary**	**Interior**	**1**	**Stairwell to 2nd**	**Stairs**	**Railing**	**Metal**	**Brown**	**Good**	**Positive**	**9.3**
64	W.L Morse Elementary	Interior	2	Stairwell	Window	Metal Bar	Metal	Blue	Good	Negative	0.1
65	W.L Morse Elementary	Interior	1	Auditorium	Door	Door	Metal	Red	Good	Negative	0.1
66	W.L Morse Elementary	Interior	1	Auditorium	Door	Frame	Metal	Red	Good	Negative	0
67	W.L Morse Elementary	Interior	1	Auditorium	Wall	Wall	Concrete	White	Good	Negative	0.3
68	W.L Morse Elementary	Interior	1	Auditorium	Wall	Rail Design	Wood	White	Good	Negative	0.7
69	W.L Morse Elementary	Interior	1	Auditorium	Floor	Floor	Concrete	Grey	Good	Negative	0.1
70	W.L Morse Elementary	Interior	1	Auditorium	Window	Frame	Metal	Grey	Good	Negative	-0.1
71	W.L Morse Elementary	Interior	1	Auditorium	Door	Door	Metal	L. Brown	Good	Negative	0.2
72	W.L Morse Elementary	Interior	1	Lobby	Wall	Wall	Concrete	White	Good	Negative	0.3
73	W.L Morse Elementary	Interior	1	Lobby	Wall	Wall	Concrete	White	Good	Negative	0.1
74	W.L Morse Elementary	Interior	1	Lobby	Wall	Cove Base	Vinyl	Brown	Good	Negative	0.4
75	W.L Morse Elementary	Interior	1	Main Hallway	Door	Door	Metal	Blue	Good	Negative	0
76	W.L Morse Elementary	Interior	1	Girls Bathroom	Bathroom Stall	Frame	Metal	Red	Good	Negative	0.1
77	W.L Morse Elementary	Interior	1	Girls Bathroom	Wall	Wall	Concrete	White	Good	Negative	0.1
78	W.L Morse Elementary	Interior	1	Girls Bathroom	Door	Door	Metal	L. Brown	Good	Negative	-0.1
79	W.L Morse Elementary	Interior	1	Girls Bathroom	Door	Frame	Metal	L. Brown	Good	Negative	0
80	W.L Morse Elementary	Interior	1	Hallway	Wall	Wall	Concrete	White	Good	Negative	0.1
81	W.L Morse Elementary	Interior	1	Classroom 16	Wall	Wall	Metal	White	Good	Negative	0.1
82	**W.L Morse Elementary**	**Interior**	**1**	**Classroom 16**	**Wall**	**Whiteboard Wall**	**Wood**	**White**	**Good**	**Positive**	**1.3**
83	W.L Morse Elementary	Interior	1	Classroom 16	Wall	TV Wall	Wood	White	Good	Negative	0.2
84	W.L Morse Elementary	Interior	1	Classroom 16	Wall	Column Wall	Concrete	White	Good	Negative	0.2
85	W.L Morse Elementary	Interior	1	Classroom 16	Closet	Door	Wood	White	Good	Negative	0.2
86	W.L Morse Elementary	Interior	1	Boys Bathroom	Door	Door	Metal	L. Brown	Good	Negative	-0.1

XRF Results

QuES&T
Union Free School District of Tarrytowns
W.L. Morse Elementary School
30 Pocantico Street, Sleepy Hollow, NY 10591
24-6101

Sample	Building/Address	Interior/Exterior	Floor	Space/Room/Description	Object	Component	Substrate	Color	Condition	Result	Pb Concentration (mg/cm2)
87	W.L Morse Elementary	Interior	1	Boys Bathroom	Door	Frame	Metal	L. Brown	Good	Negative	0
88	W.L Morse Elementary	Interior	1	Boys Bathroom	Stall	Wall	Metal	Black	Good	Negative	0.3
89	**W.L Morse Elementary**	**Interior**	**1**	**Boys Bathroom**	**Wall**	**Wall**	**Plaster**	**Beige**	**Good**	**Positive**	**2.7**
90	W.L Morse Elementary	Interior	1	Boys Bathroom	Entry Ramp Floor	Ramp	Wood	Red	Good	Negative	0.2
91	W.L Morse Elementary	Interior	1	Classroom 18	Wall (Door)	Wall	Plaster	Beige	Good	Negative	0
92	W.L Morse Elementary	Interior	1	Classroom 18	Closet Door	Door	Wood	Beige	Good	Negative	0.2
93	W.L Morse Elementary	Interior	1	Classroom 18	Wall	Wall	Plaster	Beige	Good	Negative	-0.1
94	W.L Morse Elementary	Interior	1	Classroom 18	Wall	Cove Base	Wood	White	Good	Negative	0.3
95	W.L Morse Elementary	Interior	1	Mail Room	Wall	Wall	Plaster	Green	Good	Negative	-0.2
96	W.L Morse Elementary	Interior	1	Mail Room	Window	Frame	Wood	White	Good	Negative	0.3
97	W.L Morse Elementary	Interior	1	Room 13B	Door	Door	Metal	White	Good	Negative	0.1
98	W.L Morse Elementary	Interior	1	Room 13B	Door	Frame	Metal	White	Good	Negative	-0.4
99	W.L Morse Elementary	Interior	2	Stairwell	Stairs	Step	Wood	Grey	Good	Negative	0.1
100	W.L Morse Elementary	Interior	2	Room 23	Door	Door	Metal	White	Good	Negative	0.1
101	W.L Morse Elementary	Interior	2	Room 23	Door	Frame	Metal	White	Good	Negative	-0.3
102	W.L Morse Elementary	Interior	2	Room 23	Wall	Wall	Plaster	White	Good	Negative	0.7
103	W.L Morse Elementary	Interior	2	Room 23	Wall	Board Panel	Wood	Yellow	Good	Negative	0
104	W.L Morse Elementary	Interior	2	Room 23	Wall	Column	Plaster	White	Good	Negative	0.3
105	W.L Morse Elementary	Interior	2	Room 23	Closet	Door	Wood	Yellow	Good	Negative	0.3
106	W.L Morse Elementary	Interior	2	Hallway	Wall	Wall	Sheetrock	White	Good	Negative	0.2
107	W.L Morse Elementary	Interior	2	Room 20	Wall	Wall	Plaster	White	Good	Negative	0.1
108	W.L Morse Elementary	Interior	2	Custodial Closet	Wall	Wall	Concrete	Grey	Good	Negative	0.5
109	W.L Morse Elementary	Interior	2	Custodial Closet	Door	Frame	Metal	Brown	Good	Negative	-0.1
110	W.L Morse Elementary	Interior	2	Boys Bathroom	Wall	Wall	Plaster	White	Good	Negative	0.5
111	W.L Morse Elementary	Interior	2	Hallway	Locker	Base	Wood	Black	Good	Negative	0
112	W.L Morse Elementary	Interior	2	Room 28	Wall	Wall Frame	Wood	White	Good	Negative	0.3
113	**W.L Morse Elementary**	**Interior**	**2**	**Room 28**	**Wall**	**Wall**	**Wood**	**White**	**Good**	**Positive**	**1.1**
114	W.L Morse Elementary	Interior	3	Stairwell	Floor	Floor	Concrete	Brown	Good	Negative	-0.1
115	**W.L Morse Elementary**	**Interior**	**3**	**Room 39**	**Wall**	**Board Frame**	**Wood**	**White**	**Good**	**Positive**	**1**
116	**W.L Morse Elementary**	**Interior**	**3**	**Room 39**	**Window Wall**	**Wall**	**Plaster**	**White**	**Good**	**Positive**	**1.5**
117	W.L Morse Elementary	Interior	3	Room 39	Cabinets	Base	Wood	White	Good	Negative	0.1
118	W.L Morse Elementary	Interior	3	Room 39	Cabinets	Frame	Wood	Brown	Good	Negative	0.2
119	W.L Morse Elementary	Interior	3	Room 39	Closet	Frame	Wood	White	Good	Negative	0.2
120	W.L Morse Elementary	Interior	3	Hallway	Wall	Wall	Plaster	White	Good	Negative	0.2
121	W.L Morse Elementary	Interior	3	Hallway	Wall	Cove Base	Wood	Brown	Good	Negative	0.2
122	W.L Morse Elementary	Interior	3	Hallway	Radiator	Frame	Metal	Cream	Good	Negative	-0.3
123	W.L Morse Elementary	Interior	3	Boys Bathroom	Stall	Frame	Panel	White	Good	Negative	-0.3
124	W.L Morse Elementary	Interior	3	Custodial Closet	Wall	Wall	Concrete	White	Good	Negative	0.1
125	**W.L Morse Elementary**	**Interior**	**3**	**Room 37**	**Wall**	**Board Frame**	**Wood**	**White**	**Good**	**Positive**	**1.4**
126	W.L Morse Elementary	Interior	3	Room 39	Wall	Wall	Plaster	White	Good	Negative	0
127	W.L Morse Elementary	Interior	3	Stairwell	Ceiling	Ceiling	Plaster	White	Good	Negative	0.1
128	W.L Morse Elementary	Interior	3	Stairwell	Window	Sill	Metal	Grey	Good	Negative	0.1
129	W.L Morse Elementary	Interior	3	Stairwell	Window	Frame	Wood	White	Good	Negative	0.2

XRF Results

QuES&T
Union Free School District of Tarrytowns
W.L. Morse Elementary School
30 Pocantico Street, Sleepy Hollow, NY 10591
24-6101

Sample	Building/Address	Interior/Exterior	Floor	Space/Room/Description	Object	Component	Substrate	Color	Condition	Result	Pb Concentration (mg/cm2)
130	W.L Morse Elementary	Interior	3	Music Room	Wall	Wall	Plaster	White	Good	Negative	0.4
131	W.L Morse Elementary	Interior	3	Music Room	Counter	Top	Concrete	Blue	Good	Negative	0.2
132	W.L Morse Elementary	Interior	3	Music Room	Radiator	Frame	Wood	White	Good	Negative	0
133	W.L Morse Elementary	Interior	3	Art Room 31	Door	Door	Metal	White	Good	Negative	0.2
134	**W.L Morse Elementary**	**Interior**	**3**	**Art Room 31**	**Wall**	**Wall**	**Plaster**	**White**	**Good**	**Positive**	**1**
135	W.L Morse Elementary	Interior	3	Art Room 31	Wall	Chalk Board	Chalkboard	Black	Good	Negative	0
136	**W.L Morse Elementary**	**Interior**	**3**	**Art Room 31**	**Wall**	**Cove Base**	**Wood**	**Brown**	**Good**	**Positive**	**15.9**
137	W.L Morse Elementary	Interior	3	Art Room 31	Closet Door	Door	Metal	Beige	Good	Negative	0.1
138	W.L Morse Elementary	Interior	3	Art Room 31	Counter	Top	Wood	Yellow	Good	Negative	0.1
139	**W.L Morse Elementary**	**Interior**	**3**	**Art Room 31**	**Closet**	**Wall**	**Plaster**	**Beige**	**Good**	**Positive**	**4.5**
140	**W.L Morse Elementary**	**Interior**	**3**	**Art Room 31**	**Closet**	**Door**	**Wood**	**Beige**	**Good**	**Positive**	**12.1**
141	**W.L Morse Elementary**	**Interior**	**3**	**Art Room 31**	**Closet**	**Door Frame**	**Wood**	**Beige**	**Good**	**Positive**	**13.1**
142	W.L Morse Elementary	Interior	3	Art Room 31	Door	Door	Metal	Brown	Good	Negative	0
143	W.L Morse Elementary	Interior	3	Art Room 31	Shelf	Shelf	Wood	Beige	Good	Negative	0.1
144	W.L Morse Elementary	Interior	3	Room 32	Wall	upper	Concrete	Green	Good	Negative	0.6
145	W.L Morse Elementary	Interior	3	Room 32	Wall	Lower	Concrete	Grey	Good	Negative	0.3
146	**W.L Morse Elementary**	**Interior**	**3**	**Room 32**	**Wall**	**Partition**	**Metal**	**Grey**	**Good**	**Positive**	**4.8**
147	W.L Morse Elementary	Interior	3	Room 32	Wall	Cove Base	Wood	Grey	Good	Negative	0.3
148	W.L Morse Elementary	Interior	3	Room 308	Wall	Wall	Sheetrock	Beige	Good	Negative	-0.1
149	W.L Morse Elementary	Interior	3	Room 308	Wall	Cove Base	Wood	Beige	Good	Negative	0
150	W.L Morse Elementary	Interior	3	Room 308	Door	Door	Metal	Brown	Good	Negative	0
151	W.L Morse Elementary	Interior	1	Stairwell	Wall	Partition	Wood	Brown	Good	Negative	-0.1
152	W.L Morse Elementary	Interior	B	Gym	Floor	Floor	Concrete	Grey	Good	Negative	0
153	W.L Morse Elementary	Interior	B	Gym	Wall	Wall	Wood	White	Good	Negative	0
154	**W.L Morse Elementary**	**Interior**	**B**	**Gym**	**Door**	**Door**	**Wood**	**Beige**	**Good**	**Positive**	**6.5**
155	**W.L Morse Elementary**	**Interior**	**B**	**Gym**	**Door**	**Frame**	**Wood**	**Beige**	**Good**	**Positive**	**3.7**
156	W.L Morse Elementary	Interior	B	Gym	Wall	Column	Wood	White	Good	Negative	0.1
157	**W.L Morse Elementary**	**Interior**	**B**	**Cafeteria**	**Wall**	**Upper**	**Wood**	**White**	**Good**	**Positive**	**3.7**
158	**W.L Morse Elementary**	**Interior**	**B**	**Cafeteria**	**Column**	**Upper**	**Concrete**	**White**	**Good**	**Positive**	**4.8**
159	W.L Morse Elementary	Interior	B	Cafeteria	Wall	Lower	Panel	Blue	Good	Negative	0.2
160	NIST (<0.01)									Negative	-0.2
161	***NIST (1.04 +/- 0.06)***									**Positive**	**0.7**

QuES&T
Quality Environmental Solutions & Technologies, Inc.

Appendix D:

PCB ANALYTICAL DATA

1376 Route 9, Wappingers Falls, NY 12590 Phone (845) 298-6031 Fax (845) 298-6251
NYS MWBD MBE Cert # 49952-2006 NYSUCP DBE Certified NJUCP DBE Certified www.Qualityenv.com

Technical Report

prepared for:

QuES & T
1376 Rt. 9
Wappingers Falls NY, 12590
Attention: Ken Eck

Report Date: 10/18/2024
Client Project ID: 24-6101 UFSD TARRYTOWN
York Project (SDG) No.: 24J1052

Stratford, CT Laboratory IDs:
NY:10854, NJ: CT005, PA: 68-0440, CT: PH-0723

Richmond Hill, NY Laboratory IDs:
NY:12058, NJ: NY037, CT: PH-0721, NH: 2097,
EPA: NY01600

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 10/18/2024
Client Project ID: 24-6101 UFSD TARRYTOWN
York Project (SDG) No.: 24J1052

QuES & T
1376 Rt. 9
Wappingers Falls NY, 12590
Attention: Ken Eck

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on October 15, 2024 and listed below. The project was identified as your project: **24-6101 UFSD TARRYTOWN**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
24J1052-01	6101-PCB-01	Caulk	10/14/2024	10/15/2024
24J1052-02	6101-PCB-02	Caulk	10/14/2024	10/15/2024

General Notes for York Project (SDG) No.: 24J1052

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854, NJ Cert No. CT005, PA Cert No. 68-04440, CT Cert No. PH-0723; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058, NJ Cert No. NY037, CT Cert No. PH-0721, NH Cert No. 2097, EPA Cert No. NY01600.

Approved By: Cassie L. Mosher

Cassie L. Mosher
Laboratory Manager

Date: 10/18/2024

Sample Information

Client Sample ID: 6101-PCB-01 **York Sample ID:** 24J1052-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1052	24-6101 UFSD TARRYTOWN	Caulk	October 14, 2024 3:00 pm	10/15/2024

Polychlorinated Biphenyls (PCB)-8082

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg	0.391	1	EPA 8082A	10/17/2024 10:04	10/17/2024 22:48	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
11104-28-2	Aroclor 1221	ND		mg/kg	0.391	1	EPA 8082A	10/17/2024 10:04	10/17/2024 22:48	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
11141-16-5	Aroclor 1232	ND		mg/kg	0.391	1	EPA 8082A	10/17/2024 10:04	10/17/2024 22:48	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
53469-21-9	Aroclor 1242	ND		mg/kg	0.391	1	EPA 8082A	10/17/2024 10:04	10/17/2024 22:48	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
12672-29-6	Aroclor 1248	ND		mg/kg	0.391	1	EPA 8082A	10/17/2024 10:04	10/17/2024 22:48	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
11097-69-1	Aroclor 1254	ND		mg/kg	0.391	1	EPA 8082A	10/17/2024 10:04	10/17/2024 22:48	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
11096-82-5	Aroclor 1260	ND		mg/kg	0.391	1	EPA 8082A	10/17/2024 10:04	10/17/2024 22:48	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
1336-36-3	* Total PCBs	ND		mg/kg	0.391	1	EPA 8082A	10/17/2024 10:04	10/17/2024 22:48	NF
							Certifications:			

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*85.0 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*57.0 %*	*30-140*

Sample Information

Client Sample ID: 6101-PCB-02 **York Sample ID:** 24J1052-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1052	24-6101 UFSD TARRYTOWN	Caulk	October 14, 2024 3:00 pm	10/15/2024

Polychlorinated Biphenyls (PCB)-8082

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg	0.331	1	EPA 8082A	10/17/2024 10:04	10/17/2024 23:02	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
11104-28-2	Aroclor 1221	ND		mg/kg	0.331	1	EPA 8082A	10/17/2024 10:04	10/17/2024 23:02	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
11141-16-5	Aroclor 1232	ND		mg/kg	0.331	1	EPA 8082A	10/17/2024 10:04	10/17/2024 23:02	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
53469-21-9	Aroclor 1242	ND		mg/kg	0.331	1	EPA 8082A	10/17/2024 10:04	10/17/2024 23:02	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
12672-29-6	Aroclor 1248	ND		mg/kg	0.331	1	EPA 8082A	10/17/2024 10:04	10/17/2024 23:02	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		

Sample Information

Client Sample ID: 6101-PCB-02 **York Sample ID:** 24J1052-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24J1052	24-6101 UFSD TARRYTOWN	Caulk	October 14, 2024 3:00 pm	10/15/2024

Polychlorinated Biphenyls (PCB)-8082

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11097-69-1	Aroclor 1254	ND		mg/kg	0.331	1	EPA 8082A	10/17/2024 10:04	10/17/2024 23:02	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
11096-82-5	Aroclor 1260	ND		mg/kg	0.331	1	EPA 8082A	10/17/2024 10:04	10/17/2024 23:02	NF
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP-CT005		
1336-36-3	* Total PCBs	ND		mg/kg	0.331	1	EPA 8082A	10/17/2024 10:04	10/17/2024 23:02	NF
							Certifications:			

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*81.5 %*	*30-140*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*55.5 %*	*30-140*

Analytical Batch Summary

Batch ID: BJ41165 **Preparation Method:** EPA 3550C **Prepared By:** JAA

YORK Sample ID	Client Sample ID	Preparation Date
24J1052-01	6101-PCB-01	10/17/24
24J1052-02	6101-PCB-02	10/17/24
BJ41165-BLK1	Blank	10/17/24
BJ41165-BS1	LCS	10/17/24
BJ41165-BSD1	LCS Dup	10/17/24

Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BJ41165 - EPA 3550C											
Blank (BJ41165-BLK1)								Prepared & Analyzed: 10/17/2024			
Aroclor 1016	ND	0.450	mg/kg								
Aroclor 1221	ND	0.450	"								
Aroclor 1232	ND	0.450	"								
Aroclor 1242	ND	0.450	"								
Aroclor 1248	ND	0.450	"								
Aroclor 1254	ND	0.450	"								
Aroclor 1260	ND	0.450	"								
Total PCBs	ND	0.450	"								
Surrogate: Tetrachloro-m-xylene	*1.58*		*"*	*1.80*		*87.5*	*30-140*				
Surrogate: Decachlorobiphenyl	*1.05*		*"*	*1.80*		*58.0*	*30-140*				
LCS (BJ41165-BS1)								Prepared & Analyzed: 10/17/2024			
Aroclor 1016	7.33	0.450	mg/kg	9.01		81.3	40-130				
Aroclor 1260	7.10	0.450	"	9.01		78.8	40-130				
Surrogate: Tetrachloro-m-xylene	*1.49*		*"*	*1.80*		*82.5*	*30-140*				
Surrogate: Decachlorobiphenyl	*0.973*		*"*	*1.80*		*54.0*	*30-140*				
LCS Dup (BJ41165-BSD1)								Prepared & Analyzed: 10/17/2024			
Aroclor 1016	7.56	0.450	mg/kg	9.01		83.9	40-130		3.15	25	
Aroclor 1260	7.63	0.450	"	9.01		84.7	40-130		7.21	25	
Surrogate: Tetrachloro-m-xylene	*1.58*		*"*	*1.80*		*87.5*	*30-140*				
Surrogate: Decachlorobiphenyl	*1.10*		*"*	*1.80*		*61.0*	*30-140*				

Sample and Data Qualifiers Relating to This Work Order

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

24J1052

QUALITY ENVIRONMENTAL SOLUTIONS & TECHNOLOGIES, INC.

BULK SAMPLE FORM

York Analytical Laboratories, Inc.
120 Research Drive
Stratford, CT 06615
ph. (203) 325-1371
fax:. (203) 357-0166

Field Chain-of-Custody Record

Rec'd Chris C 10-16-24 8:40
Rel Chris C 10-16-24 15:35

Company: QuES&T
1376 Route 9
Wappingers Falls, NY 12590

Sampled By (Print): Shannon D. Talsma
Sampled By (Sign.):

Results Send Via: labs@qualityenv.com
Invoice to: Angela Holzapfel

Project #: 24-6101
Project ID: UFSD TARRYTOWN

SAMPLE #	LOCATION	SAMPLE DATE	MATRIX	ANALYSIS REQUESTED	CONTAINER
6101-PCB-01	Exterior, Courtyard, Window, Frame, Metal to Brick & Mortar	10/14/2024	CAULK (GREY)	PCB	4 OZ GLASS JAR
6101-PCB-02	Exterior, Main Entry, Door, Frame, Metal to Decorative Stone	10/14/2024	CAULK (GREY)	PCB	4 OZ GLASS JAR
	Rec'd JMavaro 10/15/24			15:35	

18.7°

ANALYSIS TURNAROUND: 6-Day Turn-Around - Please call for any additional questions regarding Analysis

PAGE 1 OF 1

Rel Chris C 10/16/24 15:35 JM
Rec JMavaro 10/16/24 15:35 10/15/24

Appendix E:

LABORATORY, COMPANY, & PERSONNEL LICENSES & CERTIFICATIONS

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2025
Issued April 01, 2024

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. PAUL STASCAVAGE
EAS INC - EASTERN ANALYTICAL SERVICES INC
4 WESTCHESTER PLAZA
ELMSFORD, NY 105231610

NY Lab Id No: 10851

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual
	EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual
Asbestos-Vermiculite-Containing Mate	Item 198.8 of Manual
Lead in Dust Wipes	EPA 7000B
Lead in Paint	EPA 7000B

Sample Preparation Methods

	EPA 3050B

Serial No.: 68589

Property of the New York State Department of Health. Certificates are valid only at the address shown and must be conspicuously posted by the laboratory. Continued accreditation depends on the laboratory's successful ongoing participation in the Program. Consumers may verify a laboratory's accreditation status online at https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/, by phone (518) 485-5570 or by email to elap@health.ny.gov.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2025
Issued April 01, 2024

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. CATHERINE L. MOSHER
YORK ANALYTICAL LABORATORIES INC
120 RESEARCH DRIVE
STRATFORD, CT 06615

NY Lab Id No: 10854

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (2016) for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:

Phthalate Esters

Bis(2-ethylhexyl) phthalate	EPA 8270D
	EPA 8270E
Diethyl phthalate	EPA 8270D
	EPA 8270E
Dimethyl phthalate	EPA 8270D
	EPA 8270E
Di-n-butyl phthalate	EPA 8270D
	EPA 8270E
Di-n-octyl phthalate	EPA 8270D
	EPA 8270E

Polychlorinated Biphenyls

Aroclor 1016 (PCB-1016)	EPA 8082A
Aroclor 1016 (PCB-1016) in Oil	EPA 8082A
Aroclor 1221 (PCB-1221)	EPA 8082A
Aroclor 1221 (PCB-1221) in Oil	EPA 8082A
Aroclor 1232 (PCB-1232)	EPA 8082A
Aroclor 1232 (PCB-1232) in Oil	EPA 8082A
Aroclor 1242 (PCB-1242)	EPA 8082A
Aroclor 1242 (PCB-1242) in Oil	EPA 8082A
Aroclor 1248 (PCB-1248)	EPA 8082A
Aroclor 1248 (PCB-1248) in Oil	EPA 8082A
Aroclor 1254 (PCB-1254)	EPA 8082A
Aroclor 1254 (PCB-1254) in Oil	EPA 8082A
Aroclor 1260 (PCB-1260)	EPA 8082A
Aroclor 1260 (PCB-1260) in Oil	EPA 8082A
Aroclor 1262 (PCB-1262)	EPA 8082A
Aroclor 1262 (PCB-1262) in Oil	EPA 8082A

Serial No.: 68595

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All approved analytes are listed below:

Polychlorinated Biphenyls

Aroclor 1268 (PCB-1268)	EPA 8082A
Aroclor 1268 (PCB-1268) in Oil	EPA 8082A

Polynuclear Aromatic Hydrocarbons

Acenaphthene	EPA 8270D
	EPA 8270E
Acenaphthylene	EPA 8270D
	EPA 8270E
Anthracene	EPA 8270D
	EPA 8270E
Benzo(a)anthracene	EPA 8270D
	EPA 8270E
Benzo(a)pyrene	EPA 8270D
	EPA 8270E
Benzo(b)fluoranthene	EPA 8270D
	EPA 8270E
Benzo(g,h,i)perylene	EPA 8270D
	EPA 8270E
Benzo(k)fluoranthene	EPA 8270D
	EPA 8270E
Dibenzo(a,h)anthracene	EPA 8270D
	EPA 8270E
Fluoranthene	EPA 8270D
	EPA 8270E
Fluorene	EPA 8270D
	EPA 8270E
Indeno(1,2,3-cd)pyrene	EPA 8270D
	EPA 8270E

Serial No.: 68595

Property of the New York State Department of Health. Certificates are valid only at the address shown and must be conspicuously posted by the laboratory. Continued accreditation depends on the laboratory's successful ongoing participation in the Program. Consumers may verify a laboratory's accreditation status online at https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/, by phone (518) 485-5570 or by email to elap@health.ny.gov.

WE ARE YOUR DOL

NEW YORK STATE | Department of Labor

DIVISION OF SAFETY & HEALTH LICENSE AND CERTIFICATE UNIT, STATE OFFICE CAMPUS, BLDG. 12, ALBANY, NY 12226

ASBESTOS HANDLING LICENSE

Quality Environmental Solutions & Technologies, Inc.
1376 Route 9, Wappinger Falls, NY, 12590

License Number: 29085
License Class: RESTRICTED
Date of Issue: 12/29/2023
Expiration Date: 01/31/2025
Duly Authorized Representative: Lawrence J Holzapfel

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Amy Phillips, Director
For the Commissioner of Labor

United States Environmental Protection Agency

This is to certify that

Quality Environmental Solutions & Technologies, Inc.

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires November 09, 2024

LBP-119213-2

Certification #

November 09, 2021

Issued On

Michelle Price, Chief

Lead, Heavy Metals, and Inorganics Branch

United States Environmental Protection Agency

This is to certify that

Quality Environmental Solutions & Technologies, Inc.

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint renovation, repair, and painting activities pursuant to 40 CFR Part 745.89

In the Jurisdiction of:

All EPA Administered States, Tribes, and Territories

This certification is valid from the date of issuance and expires December 01, 2026

NAT-119213-3

Certification #

November 09, 2021

Issued On

Michelle Price, Chief

Lead, Heavy Metals, and Inorganics Branch

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

SHANNON D TALSMA
CLASS(EXPIRES)
C ATEC (10/25) D INSP (10/25)
H PM (10/25)

CERT# 24-61PEC-SHAB
DMV# 963348232

MUST BE CARRIED ON ASBESTOS PROJECTS

01213 007310343 42

IF FOUND, RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12226

OSHA
Occupational Safety and Health Administration

12-006010504

This card acknowledges that the recipient has successfully completed

10-hour Construction Safety and Health

This card issued to:

Shannon D. Talsma

David Veit — 04/22/2016

Trainer Name — Date of Issue

Atlantic OSHA Training Center
An Authorized OSHA Training Institute Education Center

732.235.9450
aotc.sph.rutgers.edu

OSHA recommends Outreach Training Courses as an orientation to occupational safety and health for workers. Participation is voluntary. Workers must receive additional training on specific hazards of their job. This course completion card does not expire.

Use or distribution of this card for fraudulent purposes, including false claims of having received training, may result in prosecution under 18 U.S.C. 1001. Potential penalties include substantial criminal fines, imprisonment up to 5 years, or both.

To verify this training, scan the QR code with your mobile device.

Rev. 1/2016

OSHA
Occupational Safety and Health Administration

11-602012363

This card acknowledges that the recipient has successfully completed

30-hour Construction Safety and Health

This card issued to:

Zachary Timpano

Paul Rodriguez	9/28/2018
Trainer Name	Date of Issue

OSHA Training Institute Education Centers
Keene State College

800-449-6742
outreach.keeneosha.com

OSHA recommends Outreach Training Courses as an orientation to occupational safety and health for workers. Participation is voluntary. Workers must receive additional training on specific hazards of their job. This course completion card does not expire.

Use or distribution of this card for fraudulent purposes, including false claims of having received training, may result in prosecution under 18 U.S.C. 1001. Potential penalties include substantial criminal fines, imprisonment up to 5 years, or both.

To verify this training, scan the QR code with your mobile device.

Rev. 1/2016

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

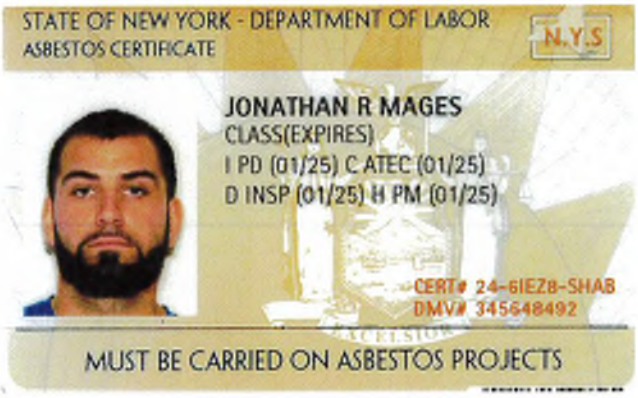
ZACHARY P TIMPANO
CLASS(EXPIRES)
C ATEC (11/25) H PM (11/25)
D INSP (11/25)

CERT# 24-61PEY-SHAB
DMV# 131470793

MUST BE CARRIED ON ASBESTOS PROJECTS

IF FOUND, RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12226

01213 0074220227 89



IF FOUND, RETURN TO:

NYSDOL - L&C UNIT

ROOM 161A BUILDING 12

STATE OFFICE CAMPUS

ALBANY NY 12226

01213 007117949 31

OSHA
Occupational Safety and Health Administration

11-006052324

This card acknowledges that the recipient has successfully completed:

10-hour Construction Safety and Health

This card issued to:

Jonathan Mages

Paul Rodriguez	6/6/2018
Trainer Name	Date of Issue

OSHA Training Institute Education Centers
Keene State College

800-449-6742
outreach.keeneosha.com

OSHA recommends Outreach Training Courses as an orientation to occupational safety and health for workers. Participation is voluntary. Workers must receive additional training on specific hazards of their job. This course completion card does not expire.

Use or distribution of this card for fraudulent purposes, including false claims of having received training, may result in prosecution under 18 U.S.C. 1001. Potential penalties include substantial criminal fines, imprisonment up to 5 years, or both.

To verify this training, scan the QR code with your mobile device.

Rev. 1/2016

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

JESSICA E LOPEZ
CLASS(EXPIRES)
D INSP (06/25) C ATEC (06/25)
H PM (06/25)

CERT# 24-6AU9Y-SHAB
DMV# 262028351

MUST BE CARRIED ON ASBESTOS PROJECTS

01213 607304383 87

IF FOUND, RETURN TO:
NYSDOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12226

OSHA
Occupational Safety and Health Administration

20-006275724

This card acknowledges that the recipient has successfully completed:

10-hour Construction Safety and Health

This card issued to:

Jessica Lopez

Robert Serino	6/28/2022
Trainer Name	Date Issued

OSHA Training Institute Education Centers
University of South Florida

813-974-2284
usfotiec-cards@usf.edu

OSHA recommends Outreach Training Courses as an orientation to occupational safety and health for workers. Participation is voluntary. Workers must receive additional training on specific hazards of their job. This course completion card does not expire.

Use or distribution of this card for fraudulent purposes, including false claims of having received training, may result in prosecution under 18 U.S.C. 1001. Potential penalties include substantial criminal fines, imprisonment up to 5 years, or both.

To verify this training scan the QR code with your mobile device.

Rev. 1/2016

ThermoFisher
SCIENTIFIC

CERTIFICATE

This Certifies that

JESSICA LOPEZ

Has successfully completed

Safety Training for
Transport of Li Ion Batteries

Supervisor Signature

1/16/2024
COMPLETION DATE

Jean Geslin
Jean Geslin, RSO
Thermo Fisher Scientific

ThermoFisher
SCIENTIFIC

CERTIFICATE

This Certifies that

JESSICA LOPEZ

Has successfully completed

Safety Training for
Transport of Radioactive Sealed Sources in XRF Analyzers

Supervisor Signature

1/16/2024
COMPLETION DATE

Jean Geslin
Jean Geslin, RSO
Thermo Fisher Scientific

ThermoFisher
SCIENTIFIC

CERTIFICATE

This Certifies that

JESSICA LOPEZ

Has successfully completed

Safety Training for
Radiation Safety for X-ray Tube Based Instruments

Supervisor Signature

1/16/2024
COMPLETION DATE

Jean Geslin
Jean Geslin, RSO
Thermo Fisher Scientific

ThermoFisher
SCIENTIFIC

CERTIFICATE

This Certifies that

JESSICA LOPEZ

Has successfully completed

Safety Training for
Sealed Source XRF - Radiation Safety

Supervisor Signature

1/15/2024
COMPLETION DATE

Jean Geslin
Jean Geslin, RSO
Thermo Fisher Scientific

ThermoFisher
SCIENTIFIC

CERTIFICATE

This Certifies that

JESSICA LOPEZ

Has successfully completed

Safety Training for
US Regulations for Handheld XRF Analyzers with Radioactive Sealed Sources

Supervisor Signature

1/16/2024
COMPLETION DATE

Jean Geslin
Jean Geslin, RSO
Thermo Fisher Scientific

ThermoFisher
SCIENTIFIC

CERTIFICATE

This Certifies that

JESSICA LOPEZ

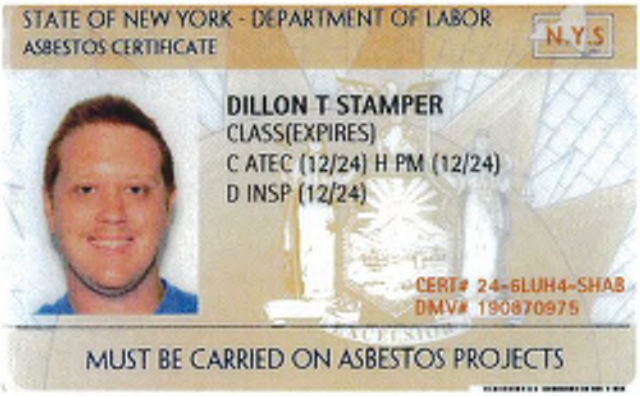
Has successfully completed

Niton Apollo LIBS Analyzer: Safety Training

1/16/2024

DATE

Valid for one (1) year



01213 0071182935 36

IF FOUND, RETURN TO:

NYSDOL - L&C UNIT

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OSHA
Occupational Safety and Health Administration

20-006275725

This card acknowledges that the recipient has successfully completed:

10-hour Construction Safety and Health

This card issued to:

Dillon Stamper

Robert Serino	6/28/2022
Trainer Name	Date Issued

OSHA Training Institute Education Centers®
University of South Florida

813-974-2284
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OSHA recommends Outreach Training Courses as an orientation to occupational safety and health for workers. Participation is voluntary. Workers must receive additional training on specific hazards of their job. This course completion card does not expire.

Use or distribution of this card for fraudulent purposes, including false claims of having received training, may result in prosecution under 18 U.S.C. 1001. Potential penalties include substantial criminal fines, imprisonment up to 5 years, or both.

To verify this training scan the QR code with your mobile device.

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