

ASBESTOS RE-INSPECTION/MANAGEMENT PLAN UPDATE

INSPECTION SITE: Hindley School – Job# DRNPS22003
Nearwater Lane
Darien, CT

CLIENT: Darien Public Schools

Darien, CT 06820
Attn. Kevin Munrett

INSPECTORS: Ryan Ebenhack (CT Asbestos Inspector #000418)

MANAGEMENT PLANNER: James Twitchell (CT Inspector/Management Planner #000241)

INSPECTION DATE: November 8, 2022

BUILDING TYPE: School

BACKGROUND

HYGENIX Division of Pennoni was hired by the Darien Public School Systems for its' re-inspection/update of their asbestos management plan (AMP). The goal of the asbestos management plan is to document the presence of asbestos-containing materials (ACM'S) in the above-mentioned site, and to comment on the conditions of these materials.

ASBESTOS INSPECTION PROTOCOL

The asbestos inspection and sampling were carried out in accordance with guidelines published in the CT Asbestos-Containing Materials in Schools Regulations (Section 19a-333-1 to 19a-333-13).

SAMPLING PROTOCOL

During the inspections of accessible spaces, the inspector identified "functional spaces or building systems" (e.g. dwelling spaces, storage rooms, boiler rooms, roof systems, heating systems, etc.), and categorized the construction materials within functional spaces and/or system as "homogeneous", based on uniformity in color, age, texture and use. The inspector then compiled a list of building materials suspected to contain asbestos, and recorded the condition, location, and approximate quantity of homogeneous, suspect materials.

From each homogeneous area or building system, where no samples have been collected, the inspectors either assumed the materials were positive or collected representative "bulk" samples of construction materials suspected to contain asbestos. Sampling was carried out in accordance with the regulatory protocols included in the CT Asbestos-Containing Materials in Schools

Regulations. Table 1 lists the minimum number of samples of each homogeneous material required by the CT Asbestos-Containing Materials in Schools Regulations inspection protocol:

TABLE 1 - CT SAMPLING STANDARDS

<u>Homogeneous Material Type</u>	<u>Minimum Number of Samples</u>
Thermal System Insulation	3 Samples
Miscellaneous Materials	3 Samples
Surfacing Materials	< 1000 Sq Ft 3 Samples
	1000-5000 Sq Ft 5 Samples
	> 5000 Sq Ft 7 Samples

Previous samples of suspect materials were analyzed at HYGENIX, Inc. laboratory and Scientific Laboratories, now AmeriSci, by polarized light microscopy (PLM) in accordance with EPA procedure #600/M4-82-020. The National Voluntary Laboratory Approval Program (NVLAP) accredits both AmeriSci and HYGENIX, Inc. to perform bulk asbestos analysis.

No samples were collected during the re-inspection.

INTERPRETATION OF TEST RESULTS

The regulations of CT Department of Public Health and the US EPA define ***asbestos containing materials*** (ACM's) as materials containing greater than 1-% asbestos. If one or more bulk samples of a homogeneous material are found to contain greater than 1-% asbestos, then all the homogeneous material is classified as ACM.

The US OSHA Asbestos Construction Industry Standard requires designation as ***presumed asbestos containing materials*** (PACM's), all surfacing materials and thermal system insulation which have not been tested, or for which the number of samples collected and analyzed was less than the previously listed minimums. This requirement does not apply if the building in which the material is found was constructed after 1980.

The results of the PLM laboratory testing are summarized in Appendix A.

ACBM ASSESSMENT

An essential objective of the asbestos survey is to evaluate the condition and accessibility of asbestos-containing building materials as an aid to evaluating the current and potential risk of asbestos exposure. By rating the degree and likelihood of asbestos fiber exposure on an objective, systematic basis, the building owner can prioritize response actions on a rational basis.

The CT survey guidelines offers the inspector seven categories in which to record the current condition of asbestos-containing building materials and the potential for damage:

- (1) Damaged or Significantly Damaged Friable Thermal System Insulation
- (2) Damaged Friable Surfacing Material
- (3) Significantly Damaged Friable Surfacing Material
- (4) Damaged or Significantly Damaged Friable Miscellaneous Material
- (5) ACBM with Potential for Damage
- (6) ACBM with the Potential for Significant Damage
- (7) Any Remaining Friable ACBM or Friable Suspected (Presumed) ACBM

TABLE 1 - SUMMARY OF ACM

<u>LOCATION</u>	<u>AHERA CATEGORY</u>	<u>MATERIAL DESCRIPTION</u>	<u>HAZARD ASSESSMENT</u>
Boiler Room	Thermal System Insulation	Boiler Insulation (Interior & Exterior)	Friable/ (5)
	Thermal System Insulation	Duct Insulation	Friable/ (5)
	Thermal System Insulation	Heat Exchanger Insulation	Friable/ (5)
Crawl Space off Fan Room & Tunnels Under Gym	Thermal System Insulation	Duct Insulation	Friable/ (5)
	Thermal System Insulation	Pipe Insulation	Friable/ (5)
Penthouse Mechanical Room	Thermal System Insulation	Duct Joint Flex Gaskets	Friable/ (5)
Cellar from Under Rooms 7 & 8 to Boiler Area	Thermal System Insulation	Pipe Insulation	Friable/ (5)
1 st Floor Girl's & Boy's Lav. Inaccessible Building Areas	Thermal System Insulation	Pipe Insulation	Friable/ (5)
Cafeteria	Miscellaneous Materials	Stage Curtain	Non-Friable/ (5)
Gymnasium	Miscellaneous Materials	Paper/Mastic Under Gym Floor	Non-Friable/ (5)
1 st Floor Phone Booth	Miscellaneous Materials	Linoleum	Non-Friable/ (5)
Roofing Materials	Removed 2006 & 2019	Removed 2006 & 2019	

GENERAL DISCUSSION - ASBESTOS ABATEMENT REGULATIONS

Asbestos management and abatement activities in the State of Connecticut are governed by the following State and federal regulations:

1. US EPA National Emission Standards for Hazardous Air Pollutants (NESHAPs)

The NESHAPs regulations for asbestos prohibit the emission of airborne asbestos dust to the environment. These regulations require notification of the regional office of US EPA at least 10 days in advance of an asbestos abatement project involving more than 260 linear feet, 160 square feet, or 35 cubic feet of material containing more than 1% asbestos. The NESHAPs regulations require the asbestos-containing materials to be kept in a wet condition during handling and removal, and specify requirements for labeling, transport and disposal of asbestos waste.

2. US OSHA Asbestos Construction Industry Standard

The OSHA Asbestos Construction Industry Standard protects workers who may be exposed to asbestos in construction. The OSHA standard specifies permissible exposure limits, and procedures for handling various forms and quantities of asbestos containing building materials. The standard describes regulated areas, exposure monitoring, respiratory protection and protective clothing, hygiene facilities, hazard communication, housekeeping, medical surveillance, record keeping, and worker training requirements.

3. CT DPH CT Standards for Asbestos Abatement

The CT regulations describe the allowable procedures for asbestos abatement, licensing of personnel involved in asbestos abatement, and reoccupancy testing requirements. A 10-day advance notification of the agency is required for asbestos removal projects involving more than 25 square feet or 10 linear feet of friable asbestos containing material.

INVENTORY OF ASBESTOS CONTAINING BUILDING MATERIALS:

The following asbestos containing materials are present in the building. Prior to any building renovations or demolition, that will affect these items, a Connecticut licensed asbestos abatement contractor employing appropriate engineering controls and worker protection measures must remove the materials.

Boiler Room	Boiler Insulation (Interior & Exterior) (170 square feet) Duct Insulation (250 square feet) Heat Exchanger Insulation (20 square feet)
Crawl Space off Fan Room & Tunnels Under Gym	Duct Insulation (<10 square feet) Pipe Insulation (350 linear feet)
Penthouse Mechanical Room	Duct Joint Flex Gaskets (30 square feet)
Cellar from Under Rooms 7 & 8 to Boiler Area	Pipe Insulation (<10 linear feet)
1 st Floor Girl's & Boy's Lav.	Pipe Insulation (<3 linear feet)
Inaccessible Building Areas	Pipe Insulation (N/A linear feet)
Cafeteria	Stage Curtain (300 square feet)
1 st Floor Phone Booth	Linoleum (6 square feet)
Gymnasium	Paper/Mastic Under Wood Floor (2500 square feet)
Roof	Field & Flashing (Removed 2006 & 2019)

GENERAL ASSESSMENT DISCUSSION - ASBESTOS CONTAINING BUILDING MATERIALS:

Asbestos Thermal System Insulation

Asbestos thermal system insulation is present on the heat exchanger, heating system lines in some pipe chases, above ceilings and in limited exposed areas within the building and is also present on the interior and exterior of the boiler, on duct flex connectors and on multiple types of duct insulation. See Response Action Table for the areas with damaged insulation.

Asbestos thermal system insulation is friable and likely to release asbestos dust with relatively minor disturbances. Prior to any renovation work in areas where asbestos insulation is known or suspected to be present, the insulation should be removed by a qualified asbestos contractor. Renovation contractors should also be advised that additional pipe insulation might be present on pipes hidden behind walls and above ceilings and directed to avoid any contact with asbestos-containing materials in general. If any hidden pipe insulation is uncovered during building renovations, the newly exposed thermal system insulation should be checked for asbestos content and handled appropriately. Removal of asbestos thermal insulation must be removed by a qualified asbestos contractor employing engineering controls and worker protection measures.

Stage Curtain

An asbestos stage curtain is present in the cafeteria of the building. See Response Action Table for requirements with the stage curtain.

Asbestos curtains are non-friable and unlikely to release asbestos dust unless disturbed. Prior to any renovation work where the curtain will be disturbed, the curtain must first be removed by a qualified asbestos contractor employing engineering controls and worker protection measures.

Asbestos Flooring Materials

Asbestos flooring is only known to be present in the Gymnasium and the 1st floor phone booth of the building. See Response Action Table for requirements with the linoleum.

Asbestos flooring (including floor tiles and mastic) is non-friable and unlikely to release asbestos dust unless severely damaged or subject to extreme physical force. If the intact, asbestos flooring must be removed, cut, or sanded, or if it deteriorates over time, the asbestos flooring and mastic must be removed by a Connecticut licensed asbestos contractor employing appropriate engineering controls and worker protection measures.

RESPONSE ACTION TABLE:

LOCATION	MATERIAL	RESPOSNE ACTION	TIME FRAME
Boiler Room	Boiler Insulation	O&M Program	2025
	Duct Insulation	O&M Program	2025
	Heat Exchanger Ins.	O&M Program	2025
Crawl Space off Fan Rm. & Tunnels Under Gym	Duct Insulation	O&M Program	2025
	Pipe Insulation	O&M Program	2025
Penthouse Mech. Rm.	Duct Joint Flex	O&M Program	2025
Cellar from Under Rm. 7 & 8 to Boiler Area	Pipe Insulation	O&M Program	2025
1 st Fl Girl & Boy Lav.	Pipe Insulation	O&M Program	2025
Inaccessible Bldg Areas	Pipe Insulation	O&M Program	2025
Cafeteria	Stage Curtain	O&M Program	2025
1 st Floor Phone Booth	Linoleum	O&M Program	2025
Gymnasium	Paper/Mastic	O&M Program	2025

LIMITATIONS

HYGENIX Division of Pennoni (HDP) has performed its services, within the limits prescribed by our clients, with the usual thoroughness and competence of the industrial hygiene profession.

The findings in this report are based upon observations and information available to the inspector during the time of the rendering of the services as described in this report and are based on procedures currently required by applicable laws, regulations, and ordinances. HDP cannot be responsible for conditions or materials the inspector did not observe due to lack of access or was not otherwise reasonably observable. The conclusions in this report are professional opinions based solely upon these findings. The findings and conclusions are intended exclusively for the purpose outlined herein within the scope of work and at the site location and project indicated.

This report is for the sole use of the client. The scope of work performed in execution of this inspection may not be appropriate to satisfy the needs of other users and any reuse of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user.

Ryan Ebenhack

11/16/22

Ryan Ebenhack - Asbestos Inspector

Date



James Twitchell – Management Planner

12/17/22

Date

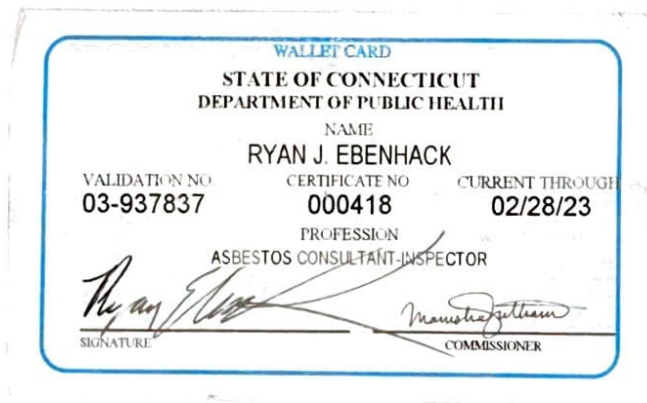
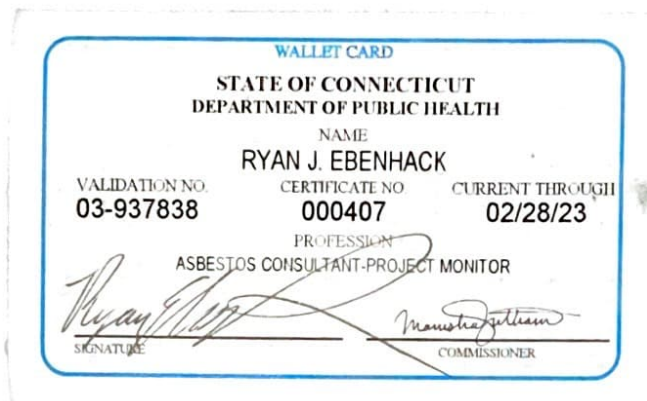
APPENDIX A

PLM BULK ASBESTOS ANALYSIS REPORTS

No samples were collected during the re-inspection on 11/8/22

APPENDIX B

INSPECTOR/MANAGEMENT PLANNER LICENSES/CERTIFICATIONS



WALLET CARD	
STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH	
NAME JAMES M. TWITCHELL	CURRENT THROUGH 07/31/23
VALIDATION NO. 03-976839	CERTIFICATE NO. 001822
PROFESSION LEAD INSPECTOR RISK ASSESSOR	
SIGNATURE	COMMISSIONER

WALLET CARD	
STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH	
NAME JAMES M. TWITCHELL	CURRENT THROUGH 07/31/23
VALIDATION NO. 03-976842	CERTIFICATE NO. 000241
PROFESSION ASBESTOS CONSULTANT-INSPECTION PLANNER	
SIGNATURE	COMMISSIONER

WALLET CARD	
STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH	
NAME JAMES M. TWITCHELL	CURRENT THROUGH 07/31/23
VALIDATION NO. 03-976841	CERTIFICATE NO. 000221
PROFESSION ASBESTOS CONSULTANT-PROJECT DESIGNER	
SIGNATURE	COMMISSIONER

WALLET CARD	
STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH	
NAME JAMES M. TWITCHELL	CURRENT THROUGH 07/31/23
VALIDATION NO. 03-976840	CERTIFICATE NO. 000256
PROFESSION ASBESTOS CONSULTANT-PROJECT MONITOR	
SIGNATURE	COMMISSIONER

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APPENDIX C

PARENT TEACHER NOTIFICATIONS

- Yearly parent teacher notification on placed on the school's website. Individual records of the postings are not maintained.

APPENDIX D

6-MONTH PERIODIC SURVEILANCES

- 6-month periodic surveillances inspections have in the past been performed by Mike Lynch / Kevin Munrett and maintained at the school and in the Board of Education building – moving forward HYGENIX Division of Pennoni will conduct the 6-month periodic inspections