



October 16, 2018

Dear Dwight Families,

Woodard and Curran has completed the environmental assessment of Dwight and the full report is attached for your review. We are pleased to share that readings were environmentally acceptable. Woodard and Curran's thorough assessment included investigative site work. There is nothing more important than the health and safety of our children and staff. To that end, Woodard and Curran is prepared to address any outstanding questions the community may have, and a question/answer session has been arranged for this purpose:

Date: Tuesday, October 30, 2018

Time: 6:00 – 7:15 PM

Location: Dwight Cafeteria

If you are unable to attend, questions may be submitted directly to Tom Cullen, Executive Director of Operations at TCULLEN@fairfieldschools.org. He will forward the questions to Woodard and Curran and provide an update for the Dwight community.

To provide some perspective, the school year began with challenging weather conditions and higher humidity than usual, which posed challenges for schools across the region. For example, during the week of September 23, 2018, the humidity readings were 11 degrees above those in 2017 and 17.6 degrees above those in 2016.

In addition, Dwight has a new roof and newer windows, giving the building a tight seal. Without air conditioning and a means of fresh air circulation, it appears that moisture was being held inside the building. At times, this caused the floors to be wet and the moisture level to feel high. Schools across the district and region were experiencing similar situations. However, part of the environmental assessment by Woodard and Curran included moisture level testing to ensure it fell within acceptable ranges.

We look forward to meeting with you on October 30, 2018.

Regards,

Toni Jones
Superintendent of Schools

Tom Cullen
Executive Director of Operations

Attachment



Via Electronic Mail

October 15, 2018

Thomas Cullen
Director of Operation
Fairfield Public Schools
P.O. Box 320189
501 Kings Highway East, Suite 210
Fairfield, CT 06825

Re: Environmental Assessment, Timothy Dwight Elementary School
1600 Redding Road, Fairfield, Connecticut

Dear Mr. Cullen:

As requested, Woodard & Curran performed an environmental assessment at the Timothy Dwight Elementary School facility located at 1600 Redding Road in Fairfield, Connecticut. The purpose of the assessment was to determine if there was evidence of fungal growth on certain building materials at the Timothy Dwight Elementary School. Woodard & Curran's October 4, 2018 assessment included areas identified by School representatives where concerns had been raised.

It was reported by Fairfield Public School Operations that humid weather conditions over the summer and early autumn resulted in damp conditions in several classrooms at Dwight Elementary School. Employees who work in classrooms 10, 15, and 17 expressed concerns regarding the presence of fungal growth as well as throat irritation. It was reported that school department personnel performed moisture meter measurements of the wallboard in classroom 10 and reported elevated moisture levels when measured in September. Based on the moisture measurements, dehumidifiers were placed in classrooms 10, 15, and 17 to reduce the humidity. Teachers in these classrooms were instructed to close windows while the dehumidifiers were in use.

BACKGROUND

Fungal growth can occur due to damp conditions within a building and is not always visible. It can be hidden in wall cavities, above ceilings, in structural framing materials, subflooring, insulation and other normally covered building materials.

Fungus thrives in damp organic matter and fungal growth media can vary widely. Examples of media that can support fungal growth include stagnant water, damp wood, backing on carpet and carpet pads, cellulose ceiling tiles, and paper facing on gypsum board. Interior finishes such as vinyl cove base and vinyl wall covering may hold moisture against gypsum board or wood, thus enhancing the conditions for fungal growth.

METHODS

Visual Inspection

Woodard & Curran conducted a visual inspection in the School to determine if obvious sources of suspect fungal growth were present. The roof and areas above the suspended ceiling tiles were also visually inspected. A borescope was used to inspect areas within wall cavities in classrooms 10, 15 and 17.



Moisture Survey

The moisture content of building materials was evaluated using a GE Protimeter Surveymaster® digital moisture meter, which has two operating modes: search and measure. In search mode, the instrument uses a non-invasive radio frequency emission technique to locate moisture and can penetrate most wall and floor coverings, including ceramic tiles, to a depth of approximately $\frac{3}{4}$ inch. It displays a semi-quantitative result on a scale of colored lights. In measure mode, the instrument uses the electrical conductivity of a porous building material to indicate its level of free water. Two electrode pins are inserted into the material and the moisture level is displayed on a digital numeric display in units of wood moisture equivalent (WME). WME is the water content that wood would have if it were in contact with the material being tested for sufficient time to reach moisture equilibrium. It is the ratio of the weight of the water in the wood to the dry weight of the wood, expressed as a percentage. Prior to use, the calibration of the instrument was checked using a Protimeter Check calibration device.

RESULTS

Visual Inspection

The following observations were made:

- In classrooms 10, 15, and 17, some of the walls are constructed of concrete masonry unit block while other walls are constructed of a layered cellulose-based wallboard with textured finish that is painted.
- No visible suspect fungal growth was observed on the CMU walls or cellulose-based wallboard material in classrooms 10, 15, and 17.
- The layered cellulose-based wallboard material is also used as bulletin boards in these classrooms. No visible suspect fungal growth was observed on or behind the bulletin boards in classrooms 10, 15, and 17.
- No evidence of active water leaks, water staining, or fungal growth was observed on the acoustical ceiling tiles in classrooms 10, 15, and 17.
- Limited evidence of oxidation was observed on the corrugated metal decking above the acoustical ceiling tiles in rooms 10, 15, and 17. This may be related to elevated moisture in the building or storage of building materials during construction. The roof was reportedly replaced three years ago and appears to be in good condition.
- A solar array is located on the majority of the roof of the school, including above classrooms 10, 15, and 17.
- In classroom 8, a small quantity of suspect fungal growth was observed on the wallboard near a sink. This area, reportedly, is where students routinely wash and dry their hands and where the trash barrel is stored. Adjacent to this area, clipboards were hung/stored on the wall. There was some light particulate debris behind these clip boards.
- A borescope was used to inspect the interior wall cavities of the layered cellulose-based wall in classrooms 10, 15 and 17. This inspection included two walls in classroom 10, and one wall in classroom 15 and 17. No water damage or suspect fungal growth was observed in the wall cavities inspected with the borescope.
- Small portions of the bulletin boards in classrooms 10, 15, and 17 were removed during the assessment to observe the conditions behind the bulletin boards. No suspect fungal growth was observed.

A photo log is included as Attachment A which depicts these conditions.



Moisture Survey

Woodard & Curran conducted a moisture survey in areas noted above on October 4, 2018. The moisture survey included those rooms specified above including ceiling and wallboard materials. The moisture survey indicated that the moisture content was less than 15%, indicating dry conditions, in classrooms 10, 15, and 17 as well as the area of suspect fungal growth in classroom 8.

RECOMMENDATIONS

Based on industry guidelines and best management practices, it is recommended that the following steps be taken:

- Continue dehumidifying the classrooms to control humidity and keep building materials dry. Consider installing other/supporting ventilation methods to better control humidity during humid months. If mechanical ventilation is not possible, operate dehumidifiers during humid periods. No other corrective actions are required based on the environmental inspection in classrooms 10, 15, and 17.
- Continue to monitor school areas for water damage and excess moisture in building materials. Continue maintenance program of replacing ceiling tiles if any water damage is observed. Note that the School's Asbestos Hazard Emergency Response Act (AHERA) records should be reviewed prior to disturbing any building materials.
- Clean the wall surfaces in classroom 8. Specifically, clean the wall surfaces to the left of the sink and the lower portion of the wall where the clipboards are hanging. Use a disinfectant or cleaning product that is approved by the School Department for housekeeping activities. Do not over saturate the area, but thoroughly wipe the wall surfaces and allow to adequately dry.

Woodard & Curran appreciates the opportunity to assist you on this project. If you have any questions or require further information, please feel free to email me at whenderson@woodardcurran.com or call me at (781) 251-0489.

Sincerely,

WOODARD & CURRAN INC.

A handwritten signature in blue ink, appearing to read 'Wm Henderson'.

William Henderson, CIH
Project Scientist

Attachment A: Photo Log



ATTACHMENT A: PHOTO LOG

ATTACHMENT A – PHOTOGRAPHS



Photo Number: 1

Date: 10/04/2018

Description: Wallboard material in Classroom 10, prior to borescope inspection

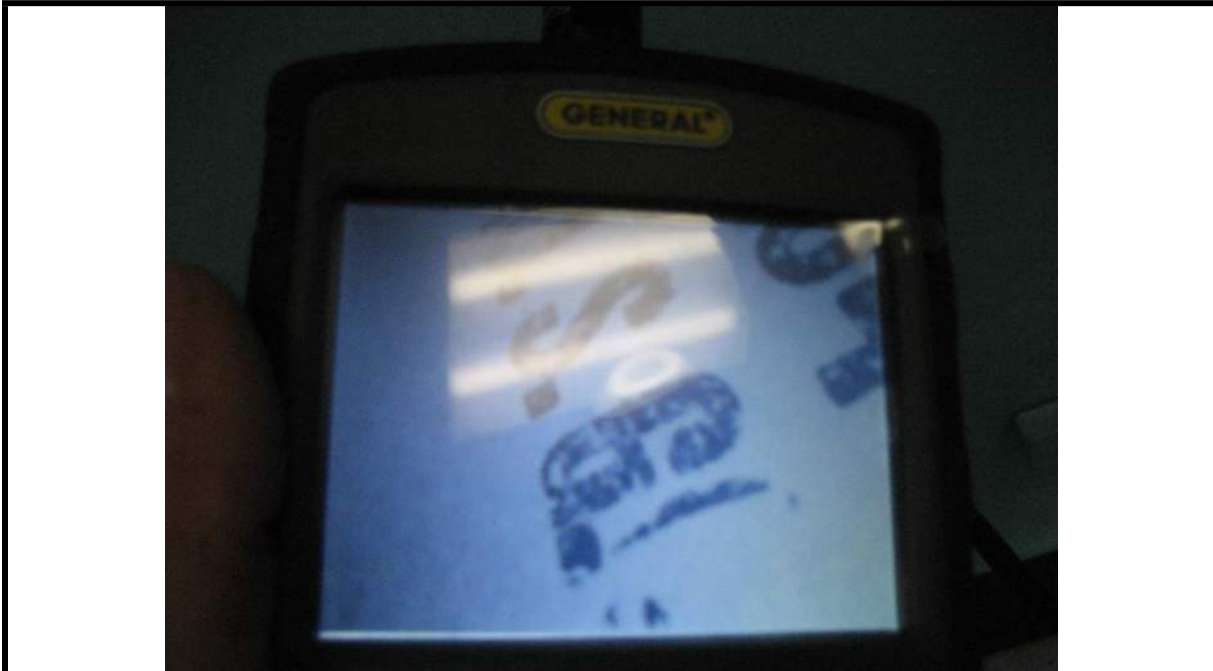


Photo Number: 2

Date: 10/04/2016

Description: Wall cavity in Classroom 10

ATTACHMENT A – PHOTOGRAPHS



Photo Number: 3

Date: 10/04/2018

Description: Interior and surface of bulletin board in Classroom 10



Photo Number: 4

Date: 10/04/2018

Description: Above suspended ceiling in Classroom 10

ATTACHMENT A – PHOTOGRAPHS



Photo Number: 5

Date: 10/04/2016

Description: Wallboard material in Classroom 15, prior to borescope inspection



Photo Number: 6

Date: 10/04/2018

Description: Wall cavity in Classroom 15

ATTACHMENT A – PHOTOGRAPHS



Photo Number: 7

Date: 10/04/2018

Description: Interior and surface of bulletin board in Classroom 15

ATTACHMENT A – PHOTOGRAPHS



Photo Number: 8

Date: 10/04/2018

Description: Above suspended ceiling in Classroom 15



Photo Number: 9

Date: 10/04/2016

Description: Wallboard material in Classroom 17, prior to borescope inspection

ATTACHMENT A – PHOTOGRAPHS



Photo Number: 10

Date: 10/04/2018

Description: Wall cavity in Classroom 17

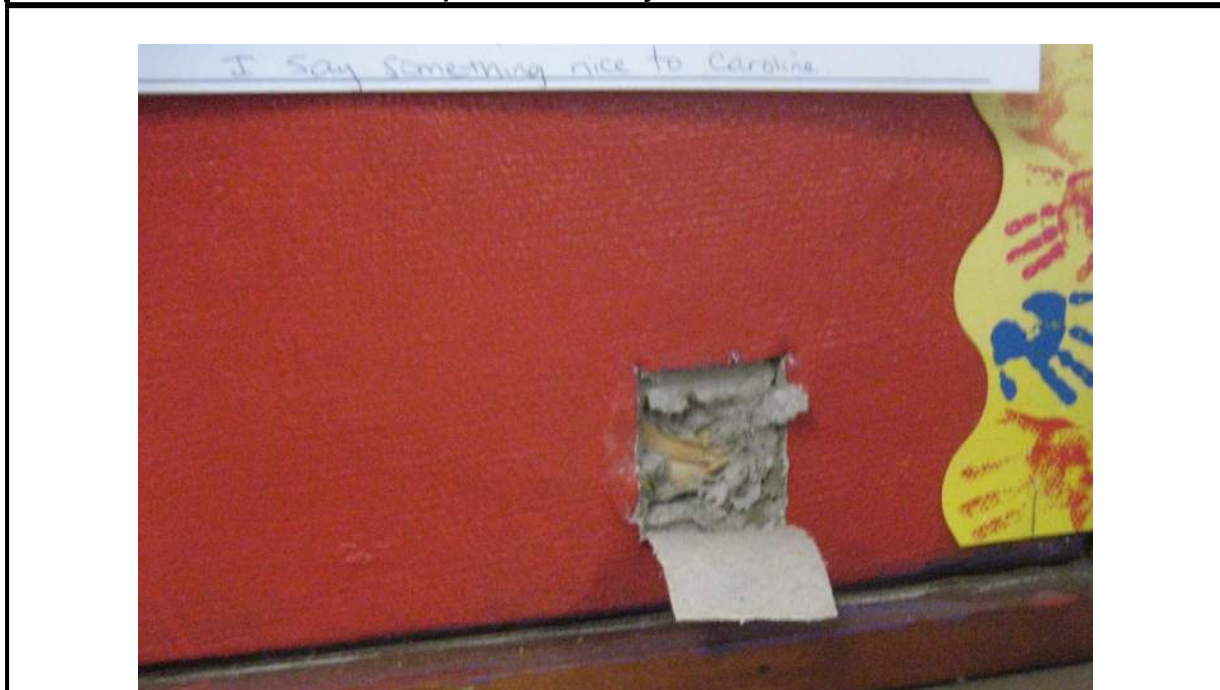


Photo Number: 11

Date: 10/04/2018

Description: Interior and surface of bulletin board in Classroom 15

ATTACHMENT A – PHOTOGRAPHS



Photo Number: 12

Date: 10/04/2018

Description: Above suspended ceiling, Classroom 17



Photo Number: 13

Date: 10/04/2018

Description: School rooftop

ATTACHMENT A – PHOTOGRAPHS



Photo Number: 14

Date: 10/04/2018

Description: Classroom 8, Wall with suspect microbial growth on surface