



BUSINESS OF THE CITY COUNCIL CITY OF MERCER ISLAND

AB 6308
July 18, 2023
Regular Business

AGENDA BILL INFORMATION

TITLE:	AB 6308: City Hall Closure Update	<input checked="" type="checkbox"/> Discussion Only <input type="checkbox"/> Action Needed: <input type="checkbox"/> Motion <input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution
RECOMMENDED ACTION:	Receive report. No action necessary.	

DEPARTMENT:	Public Works
STAFF:	Jessi Bon, City Manager Alaine Sommargren, Deputy Public Works Director Jaime Page, Support Services Manager
COUNCIL LIAISON:	n/a
EXHIBITS:	1. Map of City Hall Testing Locations
CITY COUNCIL PRIORITY:	n/a

AMOUNT OF EXPENDITURE	\$ n/a
AMOUNT BUDGETED	\$ n/a
APPROPRIATION REQUIRED	\$ n/a

EXECUTIVE SUMMARY

The purpose of this agenda item is to provide an update on the status of City Hall following the discovery of broken asbestos-containing flooring materials in mid-April 2023.

- Broken floor tiles and flooring adhesive were found in the mechanical room on April 17, 2023, which were subsequently confirmed to contain asbestos.
- The mechanical room houses one of the building’s air handling units for the Heating, Ventilation and Air Conditioning (HVAC) system, raising a concern about asbestos being distributed in the building via forced air.
- City Hall was immediately closed to all employees and visitors.
- Extensive testing has resulted in asbestos detection in several locations throughout the building, both in surface dust and in the HVAC system.
- The costs associated with abatement and re-occupancy are currently being researched and preliminary information will be shared at the meeting.

BACKGROUND

On April 17, 2023, staff visually identified broken floor tiles and flooring adhesive in the basement mechanical room, which had a similar appearance to other asbestos-containing materials previously abated in the City

Hall building. Immediate testing of the materials confirmed that both the tiles and the adhesive contained asbestos. This mechanical room houses one of the building's two primary air handling units (AHU), a key component of the HVAC system.

To ensure the safety of City staff and visitors, City Hall was closed immediately while further testing was conducted to determine if asbestos fibers were present in other areas of the facility. Initial testing, performed by an asbestos abatement contractor, focused on air quality throughout the building and identifying other asbestos-containing materials. Additional floor tiles containing asbestos were identified under the carpet tiles on the main floor, covering approximately 10,000 sq ft. The contractor determined that these floor tiles do not currently pose a safety concern, as they are intact and undisturbed. Air quality tests detected no airborne asbestos.

Testing Methods and Results

Following the initial testing, the City hired PBS Engineering and Environmental (PBS) to advise staff, conduct more intensive testing, and ensure that industry best practices were followed in further detection and risk mitigation efforts. Between late April and early July, PBS performed three primary types of tests: air quality, settled dust, and bulk material testing, with a total of 179 samples collected across all test types. See Exhibit 1 for a map of all City Hall testing locations.

Air Sampling

The intent of air sampling is to screen interior air for potential asbestos fibers. Twenty air samples were collected from locations throughout the building, using high-volume air sampling pumps and analyzed using the NIOSH 7402 method, which uses Transmission Electron Microscopy (TEM) and reports findings in concentrations of fibers per cm^3 . No asbestos fibers were identified in the collected air samples.

Settled Dust Sampling

The intent of this sampling is to evaluate surface dust in the building and mechanical system for potential asbestos content. PBS collected 75 settled dust samples at representative locations throughout the interior of City Hall and inside the HVAC system. Each sample was collected using an air sampling pump to draw dust from a 100 cm^2 area.

Samples were analyzed using the ASTM D 5575-09 method, which uses Transmission Electron Microscopy (TEM) and reports findings in concentrations of structures per square centimeter (s/cm^2). Findings are reported based on the size of any asbestos identified, grouped by between 0.5 and 5 microns, and those larger than 5 microns.

'Background levels' of asbestos structures in accumulated dust range from an average of $1,000 \text{ s}/\text{cm}^2$ in non-industrial areas to $10,000 \text{ s}/\text{cm}^2$ in cities and industrial areas where asbestos materials are common. Levels above $10,000 \text{ s}/\text{cm}^2$ are generally considered to be "above background" in any geographical location. There are no regulatory thresholds for the amount of asbestos in surface dust.

Of the 58 samples collected, asbestos was detected in ten samples from nine separate locations. Asbestos concentrations in excess of $10,000 \text{ s}/\text{cm}^2$ were identified on six of the samples, all of which were associated with the HVAC system. The highest concentration, numbering over thirteen million structures per square centimeter ($13,000,000 \text{ s}/\text{cm}^2$), was found inside the AHU located in the attic.

Bulk Asbestos Sampling

PBS has taken 84 samples from various materials for the presence of asbestos. This has been conducted both at the request of the City and to confirm asbestos content in select building materials.

Samples were analyzed according to either EPA Method 600R-93/116 using Polarized Light Microscopy (PLM) or EPA Method 600R-93/116 TEM Bulk Semi-Quantitative.

In addition to the various flooring and adhesive materials that tested positive for the presence of asbestos, three bulk samples taken from HVAC filters contained trace amounts of asbestos, and two window-glazing putty samples tested positive.

Limitations on Testing and Inspection

One goal of this wide-ranging testing was to create a comprehensive survey of conditions inside the HVAC system. However, field analysis found that many of the oldest ducts are encapsulated behind heavy plastic sheeting and fiberglass batt insulation and/or multiple layers of ceiling material. Accessing these areas for testing will require coordinated and costly deconstruction of multiple building systems including but not limited to electrical, data and low-voltage cabling, plumbing, ceiling grid, and insulation. The testing inside the HVAC system was taken as far as it could but halted recently due to limited access to the remaining areas.

In conjunction with the targeted HVAC testing, a building-wide “Good Faith Inspection” was conducted on June 27, 2023 to detect, identify, and catalog any unknown asbestos-containing materials. The goal of the inspection was a full-building analysis, but the scope of the investigation was also limited due to the inaccessibility of much of the attic and roof structure of the building. No previously unknown asbestos-containing materials were found in the areas that were accessible for surveying.

While the floor tiles and adhesive found in the basement mechanical room alerted staff to the asbestos issue and prompted extensive testing in the building, these items are not likely to be the sole source of asbestos detected in portions of the HVAC system. Additional source(s) of asbestos contamination have not been definitively identified, and likely will not be uncovered by further testing. Based on the varying levels and locations of asbestos identified through the testing completed to date, PBS consultants believe there is a high probability that one or more sources of contamination contributed to the issue over the life of the building. Further, there is a high likelihood that the original asbestos-containing materials were removed during a previous renovation in the late 1980s.

Abatement

Abatement, which is the removal of contaminated materials and equipment by a specialized contractor, has only been completed in a limited area of the basement of City Hall. Specifically, the basement mechanical room floor with asbestos containing broken tiles and adhesive was abated by a licensed contractor in mid-May, with post-abatement sampling of the floor confirming that there are no longer detectable traces of asbestos present. The HVAC system at City Hall remains unabated and turned off. Unless it is abated, it must remain off.

Long-Range Facility Planning

Prior to the discovery of asbestos, the City began working with Northwest Studio to conduct Facility Condition Assessments of select City buildings, including City Hall. These assessments evaluate the physical condition

and functional performance of each facility, including building systems such as electrical and HVAC. The contract with Northwest Studio has been amended to support the City staff team in preparing a scope of work and cost estimate to abate the HVAC system and re-occupy the building.

Staff Displacement

The displacement of staff from City Hall has had wide-reaching impacts across all departments and workgroups. While some functions can be performed remotely with relatively little operational impact, other functions such as Police Operations and Municipal Court require specialized facilities that are not easily replicated. The City Administration and other support teams are continuing to work with the staff teams and consultants to identify short-term solutions to mitigate the impacts of the unexpected closure of City Hall.

ISSUE/DISCUSSION

The purpose of this agenda item is to present an overview of the anticipated scope of work necessary to abate the HVAC system at City Hall and re-occupy the building.

In general, the scope of work necessary to re-occupy City Hall will require the installation of a new HVAC system, and the replacement of all systems that have been affected by the abatement, which is likely to include electrical and data cabling, insulation, and ceiling grid and tiles. Furthermore, other improvements to the building envelope may be required to meet current code requirements. Due to the intricate nature of the internal components of the AHUs, the presence of fiberglass batt insulation lining many of the HVAC ducts, and the age and volume of the dust build-up present throughout the system, it is not possible to clean and return the existing system to operation.

The consulting team was also asked to investigate alternatives such as occupancy of a portion of the building through the use of temporary or short-term heating and cooling options.

At the time the agenda packet materials were prepared, the consultants were still working on the anticipated scope of work, including alternative operations scenarios. Additional information, including very preliminary cost estimates and timelines will be shared at the City Council meeting.

NEXT STEPS

The information presented at the City Council meeting is preliminary and is intended to provide an update on the emergency closure of City Hall, the findings, and the anticipated scope of work to abate the facility. The project team will use the feedback from the City Council meeting to inform the development of the final scope of work and cost estimates to re-occupy City Hall, with a plan to return to the City Council for another update in September.

City staff will also continue working with Northwest Studios on the preliminary Facility Condition Assessment for City Hall. The results of this analysis, combined with the scope and cost of the abatement, will help determine whether further investment in the City Hall building is in the best interest of the City.

City Hall will remain closed to employees and the public while this work continues.

RECOMMENDED ACTION

Receive report. No action necessary.