

City of Mississauga Memorandum



Date: 2023/02/27
To: Heritage Advisory Committee
From: Melissa Anastacio, Project Manager, Capital Design and Construction,
Facilities and Property Management
Meeting Date: April Heritage Advisory Committee Meeting
Subject: Port Credit Library – Masonry Wall Abatement and Renewal

Port Credit Foundation and Building Renovation Scope:

Construction work to rehabilitate and reinforce the Port Credit library foundations commenced in Spring 2022 . The library was shut down during this time to facilitate the foundation repair work which involved installation of helical piles to support the existing library structure . In addition to the foundation repairs, lifecycle building envelope repairs were scheduled to be undertaken while the building is shut down which included roof replacement and masonry repair work.

Site conditions encountered during construction:

The restoration work for the masonry walls commenced in February 2023 and was undertaken to address spalling masonry. The restoration work involved masonry unit replacement as well as redesign of the south wall which was exhibiting the most deterioration. South wall redesign includes introduction of air space, air/vapour barrier and weep holes to improve durability and drainage. When the brick were removed vermiculite insulation was unfortunately discovered in the wall cavity. The vermiculite was tested and confirmed to be asbestos containing.

The following areas of masonry, highlighted in orange are confirmed as asbestos containing and will require full abatement and rebuild: Yellow area shown does not have vermiculite found at this point. Green area shown is the south wall which does not have vermiculite but will undergo rebuild to improve the design.

Plan View:



(Source: Google Maps)

East Elevation:



(Source: Google Maps)

South Elevation:



(Source: Google Maps)

West Elevation:



(Source: Google Maps)

North Elevation:



(Source: Google Maps)

An environmental consultant was retained to review and provide recommendation to address the presence of asbestos containing vermiculite and the impact on ongoing masonry repairs. Because of the placement and flowing nature of vermiculite it was recommended that all of exterior masonry walls will need abatement and full replacement/rebuild.

We are looking at this as a great opportunity to improve the durability of all the façade masonry while still maintaining the same aesthetic by installing black masonry and mortar instead of painted masonry. This will greatly increase durability and longevity of the masonry systems, and

will also reduce the need for ongoing maintenance to touch up re-paint the masonry in the future.

Please see below photo of a typical masonry wall at the site building. Currently the masonry has been painted black, is spalling and has discoloration occurring as well. This condition triggered the initial need for repairs, and led to the discovery of the vermiculite.



Detailed Work Plan:

As part of this work we will be abating all of the asbestos vermiculite present in the masonry wall area cavities.

- The existing masonry walls will be completely removed and all vermiculite present removed/abated as per abatement guidelines.
- We will then clean the concrete block back up wall and apply Vapour Barrier throughout. There is currently no vapour barrier present so this will improve the building envelope system greatly.
- We will rebuild the masonry walls, complete with air gap and weep holes to allow for airflow and drainage for the wall cavities. There are currently no weep holes on several elevations, so this will greatly improve the wall system durability.

The masonry we are proposing will be black, to match the look of the current system, and will not be painted. This will greatly improve durability and longevity to the masonry wall areas and will prevent the spalling and discoloration that is present typically in painted masonry systems. The new black masonry walls will have black mortar joints installed to match the colour of the masonry for a uniform look. This will ensure we maintain the current aesthetic of the masonry walls with a uniform black appearance.

Advantages of the proposed unpainted black masonry assembly:

- Improved breathability,
- Improved durability,
- Improved weathering capabilities, and
- Eliminating the need for maintenance re-painting.

Samples will be provided by the contractor to get a close match to existing and will be reviewed with the Heritage Staff prior to installation.

A handwritten signature in blue ink, appearing to read 'Melissa Anastacio', with a long horizontal flourish extending to the right.

Melissa Anastacio, P.Eng., PMP
Project Manager, Capital Design and Construction