CERTIFICATE OF APPROPRIATENESS APPLICATION FORM

Incomplete applications will not be processed for Commission review.
Please print legibly.

1. **HISTORIC NAME OF PROPERTY OR HISTORIC DISTRICT:** (if known)

The Pabst Mansion Pavilion

ADDRESS OF PROPERTY:

2000 W. Wisconsin Avenue, Milwaukee, WI 53233

2. **NAME AND ADDRESS OF OWNER:**

Name(s): Pabst Mansion Board of Directors, Wendy Burke, Chair

Address: 2000 W. Wisconsin Avenue

City: Milwaukee State: WI ZIP: 53233

Email: mame@pabstmansion.com

Telephone number (area code & number) Daytime: 414-931-0808 Evening:

3. **APPLICANT, AGENT OR CONTRACTOR:** (if different from owner)

Name(s): Jen Davel, Heritage Consulting Group

Address: 225 E. Michigan Street

City: Milwaukee State: WI ZIP Code: 53202

Email: jdavel@heritage-consulting.com

Telephone number (area code & number) Daytime: 608-609-6856 Evening: 608-609-6856

4. **ATTACHMENTS:** (Because projects can vary in size and scope, please call the HPC Office at 414-286-5712 for submittal requirements)

A. REQUIRED FOR MAJOR PROJECTS:

_____ Photographs of affected areas & all sides of the building (annotated photos recommended)

_____ Sketches and Elevation Drawings (1 full size and 1 reduced to 11" x 17" or 8 ½" x 11")
A digital copy of the photos and drawings is also requested.

_____ Material and Design Specifications (see next page)

B. NEW CONSTRUCTION ALSO REQUIRES:

_____ Floor Plans (1 full size and 1 reduced to a maximum of 11" x 17")

_____ Site Plan showing location of project and adjoining structures and fences

PLEASE NOTE: ***YOUR APPLICATION CANNOT BE PROCESSED UNLESS <u>BOTH PAGES</u> OF THIS FORM ARE PROPERLY COMPLETED AND SIGNED.***

5. DESCRIPTION OF PROJECT:

Tell us what you want to do. Describe all proposed work including materials, design, and dimensions. Additional pages may be attached via email.

(please see attached)

6. SIGNATURE OF APPLICANT:

Signature

Morgan Sweet

Please print or type name

3/27/2023

Date

This form and all supporting documentation MUST arrive by 4:00 pm (11:59 pm via email) on the deadline date established to be considered at the next Historic Preservation Commission Meeting. Any information not provided to staff in advance of the meeting will not be considered by the Commission during their deliberation. Please call if you have any questions and staff will assist you.

Hand Deliver or Mail Form to:
Historic Preservation Commission
City Clerk's Office
200 E. Wells St. Room B-4
Milwaukee, WI 53202

PHONE: (414) 286-5712 or 286-5722 hpc@milwaukee.gov **www.milwaukee.gov/hpc**

Or click the SUBMIT button to automatically email this form for submission.

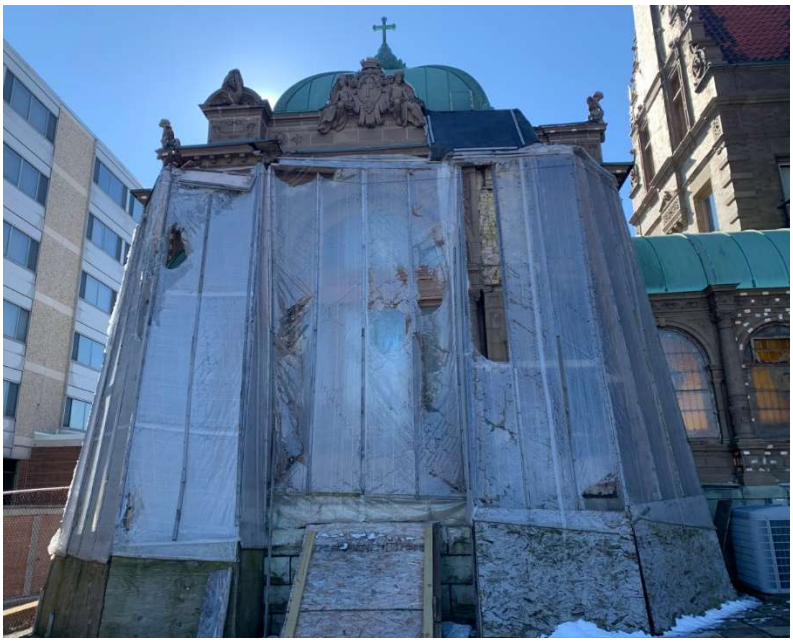
SUBMIT

Milwaukee Historic Preservation Commission
Certificate of Appropriateness Application Form

5. DESCRIPTION OF PROJECT: *Tell us what you want to do. Describe all proposed work including materials, design, and dimensions. Additional pages may be attached via email.*

Our intention in requesting this COA is to secure the Commission's approval to engage in a very unique but necessary operation to save the pavilion at the Pabst Mansion (the small structure east of the main house). The pavilion is in an extremely deteriorated condition, and it is not possible to restore it in a traditional manner. Its current condition and restoration complexities are more fully described later in this application.

PROPOSAL OVERVIEW



Our proposed plan includes deconstructing the pavilion, salvaging as many original terra cotta pieces as possible, and documenting the pavilion using advanced laser scanning tools and recording techniques. By documenting the pavilion in this manner, missing and deteriorated pieces can be recast. There is still time with what remains of this building to leverage these new tools - saving pieces that are still in good condition and also recreating pieces that are damaged or missing. Moving forward, it is important for us to proceed in a manner that aligns with current national and international standards on heritage stewardship. Based on the expertise of individuals we consulted, and our own institutional expertise, we feel that this proposed work is consistent with those standards. That will also be illustrated later in this application.

Not long ago, historic terra cotta repair work was an inexact, time-consuming, and very expensive undertaking. This is a contributing factor to the present deterioration of the pavilion, and many other terra cotta landmarks. Fortunately, recent advancements in documentation tools and object creation make this undertaking possible – both technically and financially.

We feel that the only practical option is to carefully deconstruct the existing structure, fundraise for its restoration, and reconstruct it using proper back-up structure, movement joints, weatherproofing and insulation, roofing, and enclosure membranes, and all the other technologies necessary for an outdoor location – items not originally considered as it was first located indoors at the World's Columbian Exhibition in Chicago in 1893. We feel that this option is a proper plan for a long-term solution, rather than the occasional but inadequate repair that has been going on for decades. Because of the significance of the Pabst Mansion, this undertaking would have a profoundly positive effect in the larger preservation community, bringing national awareness to Milwaukee's unique and bold undertaking to save this pavilion.

PAVILION HISTORY

The pavilion was designed as an interior exhibit for the Pabst Brewing Company at the 1893 World's Fair in Chicago. Specifically, the Pabst Beer Pavilion was located on the gallery level at the west end of the Agriculture Building (*below right*). Note the Agriculture Building's roof featured bowstring trusses with a central glass skylight. It was located within the beer exhibit which featured over 30 similar pavilions from breweries throughout the country (*below left*). The pavilion was constructed of terra cotta hung from a steel frame. The corners had curved glass display cases which displayed Pabst Brewing Company products and were capped with quarter-dome highly ornamental stained glass. The pavilion was topped with a highly ornamental stained-glass dome.

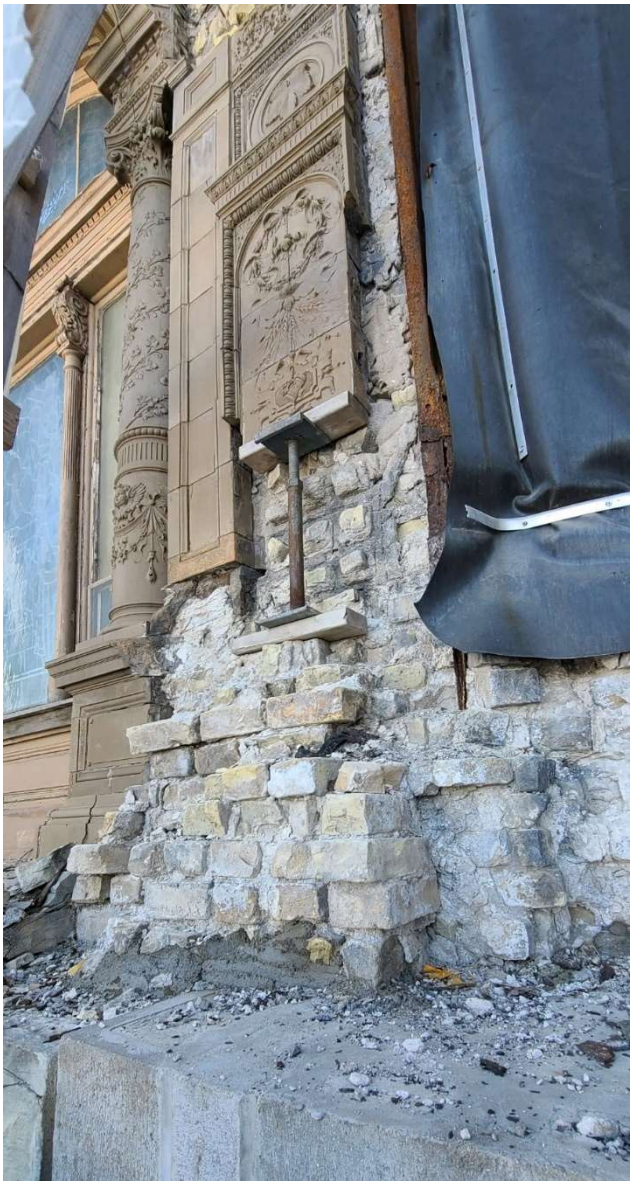
After the fair closed on October 31, 1893, the pavilion was deconstructed and transported to Milwaukee and presumably stored. It was not until 1895 that the pavilion was reconstructed on the Pabst Mansion site. Initially, the pavilion was reassembled west of the mansion, but later moved to the east side and attached to the mansion. A short hyphen was designed and constructed to connect the pavilion to the mansion at the dining room. A significantly high foundation was also constructed to support the pavilion and hyphen. This alteration raised the pavilion approximately 5'-0" above grade. Doors with glass panels were installed on the three remaining elevations.

After Captain Pabst died in 1904 and his wife in 1906, the Pabst family sold the mansion with the pavilion to the Milwaukee Archdiocese in 1908. The Archdiocese of Milwaukee converted

the pavilion into a private chapel for the archbishop. In doing so, they made many significant aesthetic changes (*below*). In an attempt to withstand the outdoor conditions, the ornamental stained-glass dome and corner quarter-domes were replaced with copper. The glass doors on the three elevations were removed and replaced with stained glass panels featuring Catholic iconography on the north and south elevations. The east elevation opening was infilled with brick and the interior was clad with marble. An elaborate altar was constructed in front of it. As part of this intervention, the two terra-cotta columns at the east wall were removed. Decorative plaster was installed on the underside of the dome and painted. Windows displaying the coat of arms of each of the archbishops who resided in the home were installed in the arcade that attached the pavilion to the house.

The Milwaukee Archdiocese occupied the structure until 1975. Wisconsin Heritages, Inc. purchased the mansion in 1978. In 1979, the Pabst Mansion was listed on the National Register of Historic Places primarily under Criteria C for Architecture. The nomination also lists Criteria B, for its association with a historically significant person – Captain Frederick Pabst. The period of significance listed on the National Register Nomination is 1890-1892, which reflects the date of construction of the mansion and is not inclusive of the pavilion. It is important to note that the pavilion is not listed as a contributing structure in either the National Register Nomination or in the City of Milwaukee Landmark Repot. In fact, the pavilion was mis-represented in both the nomination and landmark report stating, *"…an originally free-standing conservatory was moved and connected to the east side of the building and converted into the archbishop's chapel."*

PAVILION EXISTING CONDITIONS



More than 100 years later, the pavilion remains attached to the mansion. Because the pavilion was not designed to be a permanent building located outside in Wisconsin's extreme weather, it was not constructed to be weather-tight with appropriate materials or details such as flashing, caulking, and insulation. The pavilion's construction combined with Wisconsin's freeze-thaw cycle create the perfect recipe for water infiltration and deterioration. The deterioration observed throughout is a cause of continuous water intrusion at the roof, walls, and windows as there was never flashing or caulking installed. Currently, the decorative terra cotta is attached to Cream City Brick (CCB) structure, not original to the building (*left*). The CCB back-up was never engineered to include movement joints, flashing materials, or proper rust-resistant anchors for the terra cotta attachment. Combining the lack of proper structure and constant water intrusion, Pabst Mansion has invested significant funds to stabilize the pavilion over the past 40 years, but these were all temporary patches. Caulks and sealant products have only covered up the inherent and fundamental problems below the surface. The north elevation is in the worst condition. Plastic was installed in 2017 to protect the structure from the elements. Wooden braces, a jack and foam column were further temporary measures taken to hold the exterior masonry in place.

Today we can see the impact of placing a structure designed to be indoors in Wisconsin weather. Specifically, wood windowsills are rotted (*above and below*), and terra cotta is spalling and cracking due to the freeze-thaw effect of water within the walls (*below*). Most importantly, the roof (the most vulnerable location on a building) was never properly designed or installed after the building was moved to Milwaukee. Water continues to penetrate cracks and openings despite unending repair work (*below bottom*).

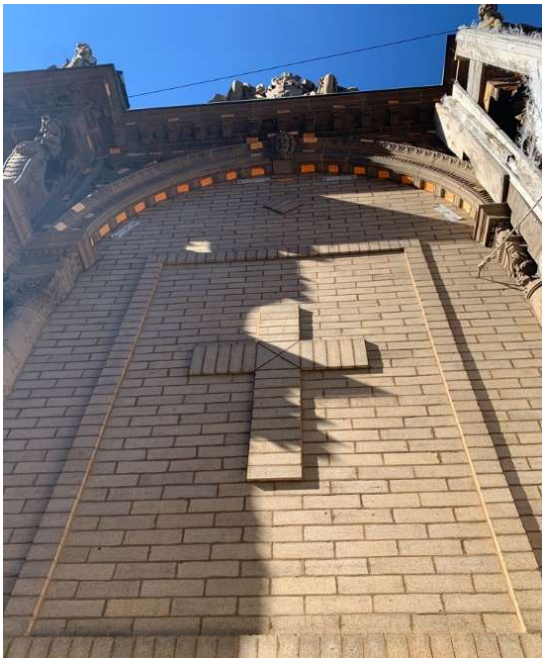
LOSS OF INTEGRITY

Due to the significant number of alterations associated with its conversion for use as a chapel after the period of significance, the limited amount of time that it was utilized by the Pabst family, and the fact that it is not original to the site, we contend that the pavilion does not exhibit the qualities for which the property was historically designated. Below are current photos with the various changes highlighted.

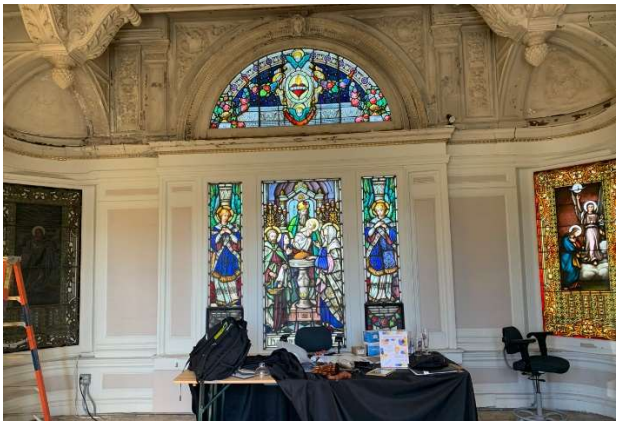

The south (*left*) and north (*right*) elevations of the non-original hyphen constructed to connect the pavilion to the mansion. Note the masonry openings retain the stained glass installed by the Archdiocese.



The central and corner quarter domes are copper replacing the original stained-glass domes. The south elevation also showing stained glass windows at both corners and above the non-original entrance infill. Non-original wood stair.




At the exterior the east elevation arched bay was infilled with brick including a cross (*left*). At the interior, marble was installed within this arched bay and the two columns were removed (*right*).

Above (left) is the plastered dome, and above (right) are the stained-glass windows all installed by the Archdiocese. The original Pabst Beer Pavilion (*below left*) at the 1893 World's Fair and a photo (*below right*) of the pavilion as it appears today. When comparing the two the compounded alterations create a different structure altogether.


PROPOSED WORK

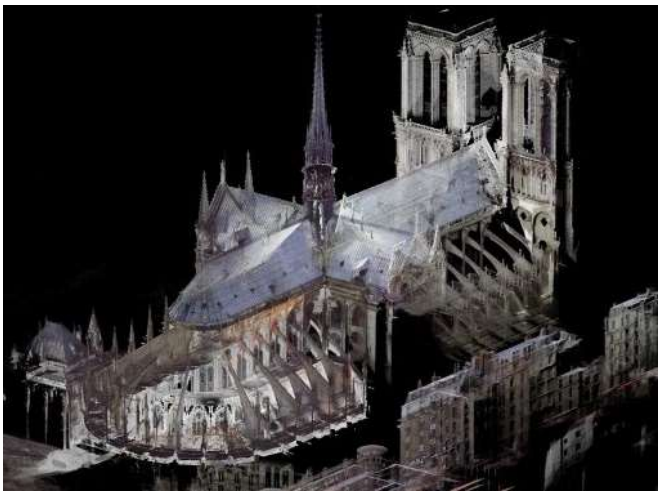
This project will take place in three phases:

1. Deconstruction will commence after the entire structure is scanned, all salvageable pieces (estimated 25% of current pavilion) will be removed and carefully stored.

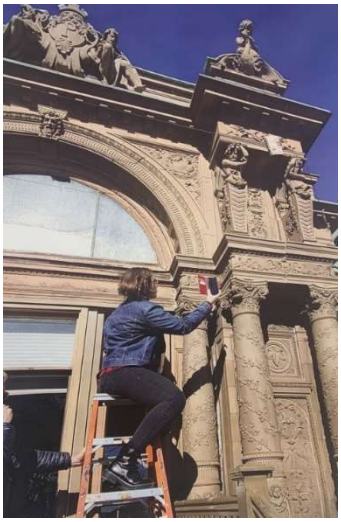
2. New terra cotta pieces cast.

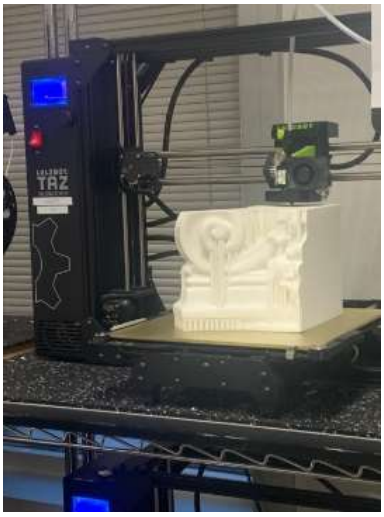
3. Reassembly, with original pieces combined with newly cast pieces. The pavilion would be restored as an airing porch to match the original appearance.

We seek approval for the first phase and will submit COAAs for the later phases.
In Phase One, recording of the pavilion will be conducted using the most advanced tools available (*left*). These scans will be used in Phase Two to create new pieces with 3D printing. This eliminates guesswork and allows the construction team to have complete confidence in what ultimately is reassembled in Phase Three. Please note, it is the intention to recreate the original pavilion design as seen in 1893, the alterations the Archdiocese completed will not be part of the future reconstruction.



Laser Scanning is a recently employed technology that uses inferred laser points – similar to that of a laser pointer - to create a computerized electronic file of physical data points called a Point Cloud file. Approximately 900,000 points in space are recorded per second. The electronic data is a computer copy or twin of the original. The file is a permanent archive of the physical information about the building or object. Many owners will commit to this simple product in order to have archival information for safety purposes if anything might happen to the building. (This technology was employed at Notre Dame in Paris with repair work being informed by laser scan information of the building created before the fire.) This step is quite inexpensive and quick. The next step would be to create proper construction drawings. Those drawings will include the overall size and dimensions of the building inside and out for future reconstruction.





The other advantage of laser scanning is recording each individual piece (*left*). This scan information will be used to create the new pieces using a 3D printer (*left*). The 3D prints will be the positive object from which a negative mold is created. That negative is used to create the final terra cotta piece, which takes place in Phase Two.

Pabst Mansion recently learned of this technology. Gladding McBean, the leading producer of terra cotta, located in Lincoln, California is sponsoring a studio at the Historic Preservation Institute at the University of Wisconsin, Milwaukee. This studio has already begun scanning the pavilion as an exercise to reveal efficiencies in documentation, modeling, and reverse engineering of historic structures. This study will present methods to accelerate the process of terra cotta manufacturing using digital modeling. This is an important new way to ensure that the pavilion will be accurately documented and advanced for future reassembly.

The pavilion at the Pabst Mansion will be entirely laser scanned, carefully deconstructed, and all salvageable pieces will be stored and scanned in a warehouse 3 miles away – cleaned and repaired and ready for future reconstruction. This proposal meets the Secretary of the Interior's Standards for Reconstruction, "*Reconstruction will be used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture and such reconstruction is essential to the public understanding of the property."*

The plan is to start and complete the pavilion deconstruction this year before another freeze/thaw cycle destroys additional terra cotta. We are currently consulting with Gladding McBean, The Bond Company, and Leverett Masonry, all experts in the masonry field, to develop detailed schedules for the scanning and deconstruction.

In conclusion, due to the pavilion's ultimate deterioration, loss of integrity, and its installation outside the Pabst Mansion's historic period of significance, we ask the Milwaukee Historic Preservation Commission to approve this Certificate of Appropriateness to record the pavilion's physical structure using a Point Cloud Scan, deconstruct the pavilion, and store all salvageable pieces until it can be reconstructed to match the original Pabst Beer Pavilion.

Thank you.