



Milwaukee Historic Preservation Commission Staff Report

LIVING WITH HISTORY

HPC meeting date: 7/8/2019

Ald. Nik Kovac District: 3

Staff reviewer: Tim Askin

PTS #114787 CCF #190373

Property 2618 - 2626 N. BREMEN ST. Rectory and Convent of St. Casimir Church Complex

Owner/Applicant META HOUSE, INC. Sarah Koehn
2625 N WEIL ST Meta House
MILWAUKEE WI 53212 2618 N. Bremen St.
Milwaukee, WI 53212

Proposal This project includes the removal and replacement of all windows in occupied rooms, excepting leaded glass windows. Applicant intends to install new double hung windows with vinyl exteriors. The vinyl color is proposed to match as close as possible to existing conditions.

For the rectory, the large window at the East elevation will get a picture window flanked by two double hung windows (AKA Chicago window). The large window on the North elevation will get two double hung windows.

Staff comments It is clear that many windows in the complex need repair. Of the photographs provided to us, few show needs of major repairs. For the most part, windows are in need of sash cord replacement and may need to have glazing putty replaced. Lead abatement is probably necessary in some locations, but lead has not been confirmed, nor are all windows painted.

It has been the policy of this Commission since its origins in 1982 that vinyl windows cannot meet the requirements of approval in the historic preservation ordinance or the guidelines of any district or individual property. They are not manufactured in a way that allows them to have any meaningful resemblance to historic windows. Corners are constructed differently with mitered joints. Glass and sash are inserted without traditional stops. Rails and stiles are often thicker because of their incapacity to bear as much weight as wood, especially when using the much heavier insulated, double pane glass. Operation is based on pneumatics or springs, which gives the jamb a different appearance and results in features that cannot be readily repaired. Pulleys, ropes, and counterweights are readily repaired and replaced by anyone with the most rudimentary carpentry skills. The interior jamb structure of most of the Meta House windows is of a design that even a saw is not necessary to conduct the repairs.

Per our Common Council adopted guidelines in *Living With History*, "Solid vinyl or metal replacement windows may not be installed on historically designated [properties]. Because of the way they are made and operate, vinyl and metal replacement window units have a significantly different appearance than traditional double hung windows and will greatly alter the way a house looks. In addition, vinyl and metal window units are not home-owner repairable."

The church complex is eligible for the National Register of Historic Places in the opinion of staff. Meta House has chosen not pursue this and thus the opportunity to use historic preservation tax credits.

Energy Efficiency While we recognize that Meta House did have a professional bid to refit their windows with double-pane, it is an unnecessary and ineffective expense.

Countless studies have shown the double-pane and vinyl replacement windows are not the most effective, or cost-effective solution to energy efficiency in climates similar to Milwaukee (Chicago and Boston in particular). In Chicago and Boston, the combination of cellular shades and exterior storms has proven to have equal performance to a new double-pane window. In both cities an interior storm window alone came within the range of error for outperforming a new double-pane window. In both cities, replacement windows had the second lowest return on investment of seven interventions studied (Chicago 1.6%; Boston 2.3%). The best return on investment of these seven interventions in the four heating climates studied was cellular shades followed by an interior or exterior storm.

A Boston study that specifically used double-pane vinyl windows showed the replacement was not cost-effective and had greater lifetime expenses than repair and upgrade of wood windows (Shirley, et al.).

Maintenance-free products are not necessarily mythical, but it is always a deeply misleading claim. "Modern windows might not require maintenance, but they also cannot be repaired. Many say, 'They call them replacement windows for a reason. Because you'll have to keep replacing them.' This may not be the image window manufacturers want you to have, but it's true. Maintenance free equals disposable. You don't have to maintain them, but they still wear out. And when they do, you can't fix them. You have to throw them out and get new ones," (Preservation Pennsylvania). The impossibility of repairing them leads to these substantially higher life-cycle costs.

Finally, vinyl windows have, at best, a 35-year lifespan (Shirley, et al.). In most cases the double-pane seal fails long before that. A study conducted for the Historic Preservation Commission of Hutchinson, KS has found that vinyl windows are best estimated to have a 15 year lifespan before they need complete replacement (Yapp). Based on the Yapp study, with a typical 1-over-1 window size as listed in Meta House's estimate for new windows, the worst case scenario repair of the wood windows would be \$16.50/year compared to \$50.56/year for new vinyl.

References National Trust For Historic Preservation (NTHP) / Preservation Green Lab. 2012. "Saving Windows Saving Money." <https://www.ncptt.nps.gov/blog/saving-windows-saving-money/>

Preservation Pennsylvania. 2016. "Considering the Repair, Retrofit and Replacement of Historic Windows."

Shirley, F., Gamble, F., and J. Galvin. 2010. "A Comparative Study of the Cumulative Energy Use of Historical Versus Contemporary Windows". <http://ohp.parks.ca.gov/pages/1054/files/2%20window%20rehabilitation%20retrofit%20and%20replacement.pdf>

Yapp, Robert. "Historic Preservation Cost Comparison Tool". 2016. <https://www.hutchgov.com/1513/Cost-Comparison-Tool>

Recommendation Recommend HPC Denial

Conditions Chicago windows are an acceptable alternative to the existing jalousie windows, but not in vinyl.
Previous HPC action Staff approved replacement with Marvin Ultimate Double Hung.
Previous Council action