

Supplementary Information Provided to Milwaukee Historic Preservation Commission

Date of Hearing for Certificate of Appropriateness (COA): January 6, 2020

Applicant: First Unitarian Society of Milwaukee

Project: Installation of 65 Solar Panels on south-facing roof over the sanctuary

1. Manufacturer of the solar panels is Philadelphia Solar.
2. Color of the panels is black.
3. Height: The distance off the roof of the TOP of the panels is 6.71 inches, calculated as follows (information provided by Arch Electric):
 - The flash foot is: 3.28" H
 - The XR100 Rail adds: 1.86" H
 - Panel thickness: 1.57" H
 - Total distance off roof deck: 6.71"See the drawings sent by email for details. Note that we will be using the XR100 rails which are aluminum, and which can be a black or standard aluminum color.
4. Structural Analysis: We hope to have the structural report completed by the time of the hearing. Note that Arch Electric and the church Building Committee are also very concerned about the structure. The installer does not want the liability of failure, and our church does not want a roof or structural failure, either. Both have done a visual inspection and think that the structure is quite adequate, and are awaiting the report. Both parties in addition to the City through its permitting process will be carefully reviewing the report. If the report is not available at the hearing, the applicant asks the HPC to approve the COA based on the assurance that these entities will review the report prior to construction.
5. Financing: The church is using an innovative and rather complex financing technique working with Legacy Solar Co-op, a Wisconsin-based, member-owned cooperative providing solar and energy-efficiency products and services. Legacy has extensive experience in the state working with churches and nonprofit institutions as well as for-profit businesses. Legacy has developed a financing technique that enables a nonprofit entity, such as a church, to finance solar electric projects by partnering with a private entity (called the tax sponsor) who obtains tax credits defined in Federal tax law. In this case, the tax sponsor is a member of the church. He (technically his LLC) leases roof space from the church and purchases bonds from Legacy to pay for installation of the panels. The bonds are paid off by the church from the electricity savings generated by the solar panels. There are substantial legal agreements and documents that need to be executed to make this arrangement workable.
6. Efficiency. The major goal with this project is to reduce carbon emissions, thereby helping to address global warming. As Unitarian Universalists, we pledge to respect the interdependent web of all existence, of which we (humans) are a part. Erecting solar panels is therefore a religious act for us. A secondary goal is to save the church money on its electricity bills. The solar electric system will produce approximately half of the church's energy. In order to maximize the reductions in greenhouse gas emissions, maximize savings to the church, and also to justify the complex legal and financing arrangements, the church maximizes the efficiency of the system by installing the maximum number of panels (65 panels) given the configuration of the roof, as shown in the application.
7. Historic Preservation. The First Unitarian Society is committed to preserving the historic character of the building. The panels will not affect the two major facades of the historic building, the north and west facades, which are the views generally seen by the public. The panels would only be visible from a small portion of Astor Street if a person looks up at the roof. The color and small distance off the roof will help mitigate what some might think of an intrusion. In addition, the parapet on the edge of the roof will help hide the edges of the panels. Based on the information provided in this application and state statute along with City of Milwaukee support for promoting solar panel systems, the First Unitarian Society asks for the Historic Preservation Commission to approve the COA.