



Butterworth Center



Deere-Wiman House

### **Butterworth Center and Deere-Wiman House - Moline, Illinois**

Architectural Consulting Engineers (ACE) was the mechanical engineering consultant for a Historic Structures Report and Detailed Mechanical System Assessment prepared by the Sullivan Preservation Team for the Butterworth Center and associated Butterworth Education Center as well as the Deere-Wiman House and associated Carriage House. This report looked at the mechanical, electrical, plumbing and fire protection systems in all four buildings focusing on their condition, historical transformation, and current functionality. We reviewed possible building envelope and system improvements to enhance the environmental management of the spaces to support improved conditions for not only the extensive collections housed on-site, but also the historic building fabric in each of the buildings.

As part of the study we deployed temperature and relative humidity data loggers to establish the current operating baseline conditions. This data will be used for long range planning to assist in determining the spaces best equipped to house historic collections and also as a baseline metric for future system and envelope improvements to determine the intervention effectiveness. An energy model was also developed for each building to establish equipment replacement sizing and to estimate the improved energy performance of the building and systems if improvements were undertaken.

The report output included a prioritized listing of recommended improvements to assist the facility in long term strategic planning and in maintaining their systems.