

Hendrick House Addition

LEED Gold Certification

Urbana, Illinois

Client/Architect: Architectural Spectrum, Champaign, IL



Range of Services

- Full structural engineering services

Project Overview

This project included expansion of the dining and kitchen spaces and addition of a lounge, covered parking, boiler room, loading dock, storage, and public roof top terrace for the student housing complex. Sustainable design was incorporated throughout the design and construction of this project, including implementing a geothermal HVAC system, passive solar elements, green roof, regional materials, and recycled materials. The project is slated to be a LEED-Silver building once completed.

The structural systems for the two-story building addition and renovation project include: steel columns, beams, joists, and bracing; composite metal deck and roof deck; cmu walls, and concrete slab on grade and foundations. Foundation and column locations and designs were detailed to avoid adjacent existing building structural elements and a number of underground piping elements.

In addition, to accommodate the architectural design intent of providing a corridor from the existing building into the addition space, an existing diagonal brace part of a seven-story building was removed. The lateral system of the existing structure was analyzed with the diagonal brace removed. The selected structural systems were cost effective, met sustainable guidelines and the architectural design intent.

integrating
STRUCTURAL
design
focused on
quality