

Ensuring a Firm Foundation for a Dynamic, New Student Housing Complex



Saint Joseph's University, Villiger Hall Student Housing, Philadelphia, PA

Joseph Barbato Associates is proud to have provided Structural Engineering services for the new, \$26 million Villiger Hall student housing complex at St. Joseph's University, which opened in 2012 to 400 co-ed, first-year students from the class of 2016. The L-shaped structure has two wings and six floors that each offer study lounges for individual study, group learning and social activities, and larger common areas where all the residents from each floor can interact, fulfilling project goals for encouraging student interaction and fostering a sense of campus community. Students can also take advantage of a large Fitness Center on the ground floor, as well as shared kitchens, laundry facilities, wireless and cable access, in-room air conditioning, and a 24-hour security desk. Villiger Hall now dramatically defines the southern gateway to campus with a building that speaks to St. Joe's strong traditions while also affirming its commitment to fulfilling the present and future needs of today's students.



Designing a Firm Foundation ... Villiger Hall:

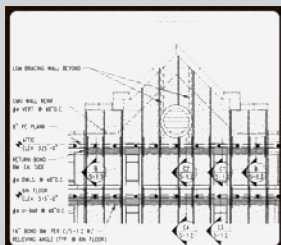
JBA's structural engineering role for this project included designing the foundation and basic structure of the 116,500-square-foot, six-story building, using the firm's AutoCAD capabilities. The building's foundation consists of a continuous, reinforced concrete wall footing for the perimeter and interior 8-inch concrete masonry unit (CMU) walls that bear on the granite bedrock below the existing grade. The floor was supported with 8-inch, pre-cast, hollow-core planks made of concrete, topped with a cementitious layer that supports 6-inch CMU partition walls at each story level. A partial basement was designed to support recreational uses and mechanical systems. Interior spaces were shaped with light-gauge metal stud framing. The exterior veneer is faced with granite / limestone and glass, bringing St. Joe's student housing into the 21st century while expressing the school's history and heritage.



Hollow-Core Plank



Light-Gauge Stud Framing



CAD Model Detail

JBA Also Offers Full Revit Capabilities:

Joseph Barbato Associates uses Autodesk's Revit Structure for modeling of building systems. This program allows the firm's engineers to optimize design details while also maximizing efficiency. By modeling projects in a 3-D environment, real-time decisions can be made regarding the simplest and most cost-effective solutions to even the most complex conditions. JBA leverages the parametric capabilities of Revit Structure to keep plans, sections and details in sync with the evolving specifics of any design. The embedded information and parameters of modeled objects ensure fast and accurate schedules and quantities.



A Revit Structural Model designed by JBA.



The Villiger Hall project was managed by Campus Apartments, designed by PZS Architects and built by INTECH. Photography courtesy of PZS Architects.