



**Humility of Mary Health Partners
St. Elizabeth Boardman Campus
Inpatient Facility
Boardman, Ohio**

Project Team:

Owner: Humility of Mary Health Partners
Structural Engineer: Atlantic Engineering
Mechanical Engineer: Scheeser, Buckley, Mayfield, LLC
Lead Architect: Moody-Nolan, Inc
Local Architect: Strollo Architects
General Contractors: Boardman Construction Partners, LLC
(a joint venture between) - Alex Downie & Sons Co.
- The Albert M. Higley Co.

General Project Information:

Location: Boardman, Ohio
Size: 7 stories / 250,000 ft² + Penthouse
Occupancy: Hospital
Cost: \$65 Million
Construction Dates: Oct 2005 –Aug 2007
Delivery Method: Design-Bid-Build

Structural System:

- Foundation of 16" auger cast piles with pile caps and grade beams with cast in place concrete piers.
- Wide flange structural steel framing with 4" light weight concrete floor slabs on composite steel decking.
- Steel chevron, knee, and cross bracings on all floors for lateral force resistance.

Electrical System:

- Emergency backup 2000 kw diesel generator.
- Standard distribution supplied through 480/277 Volt 3 phase, 4 wire system
208/120 Volt 3 phase, 4 wire system
- Linear fluorescent fixtures on 277 volt system with local line volt switching.
- Visual voice fire alarm evacuation system with nurse calling and telecommunication systems throughout building.

Architecture:

- Primarily brick façade.
- 14'-8" typical floor to floor height.
- Curvilinear wall on north elevation with aluminum panel curtain wall system.
- Flat roof system similar to floor structure with light weight concrete slab for contained HVAC units and penthouse.

Mechanical System:

- Roof top units controlling air quality within seven story addition.
- Two mechanical rooms on 2nd and 3rd floors including boilers and chillers regulating heating, cooling, and air quality for entire building.

Josh T. Behun

Architectural Engineering
Structural Option

The Pennsylvania State University

www.engr.psu.edu/AE/thesis/portfolios/2008/jtb217