

Primary Project Team:

Owner: MSL Associates Ltd.
Architect: MSL Associates Ltd.
MEP Engineers: Sebastian & Sons, Inc.
General Contractor: Caldwell, Heckles & Egan Inc. (CH&E)
Electrical Contractor: State Electric
Structural Engineers: P.W. Moss & Associates

General Building Data:

Project Location: West Chester, Pa
Size (Total Sq. Ft.): 370,000 Sq. Ft.
Total Number of Stories: 5 Stories
Number of Stories Above Grade: 3-4 Stories
Dates of Construction: December 1, 2003 – August 15, 2005
Overall Project: \$20,700,000.



Construction

Wellington was a Design-Bid-Build project that included three phases of construction. Each phase was set to end twenty months after their start date. The construction of Wellington went only two weeks over the set end date.

Electrical

- o Main service to the buildings is 35KV that feeds a 1000KVA transformer.
- o Main Panel: 3000A switchboard, 480/277V, 65KAIC
- o Each of 3 electric rooms: 500KVA transformer 480 TV 120/208 and 2000A switchboard to an 800A panel on each residential floor
- o 300 KW generator for emergency power at 480V, one emergency panel for 480/277V lighting and a 75KW transformer 480 TV 120/208 panel for lighting
- o Each apartment has 125A service and panel
- o Generator also supplies power to a 40 HP fire pump

Lighting

- o Common area and residential lighting at incandescent 120V
- o Business offices, doctors' offices, game room and parking garage lighting at fluorescent 277V
- o Each apartment has lighting fixtures and paddle fans
- o Site lighting at metal halide 277V

Architecture

- o Exterior walls finished with red and white stucco
- o Balconies and a veranda with built up columns finished in stucco
- o Porte Cochere at main entrance also with a stucco finish



Mechanical

- o Common areas mixed split system and packaged rooftop heat pumps
- o Residential areas mixed packaged thru-wall and packaged rooftop heat pumps
- o Rooftop air conditioners and split system air handling units used for fresh air supply
- o Exhaust fans in bathrooms, pool, parking garage, and beauty salon
- o Electric wall and ceiling heaters for stairwells and exterior exits
- o Stand alone thermostats control HVAC systems

Structural

- o Foundation: 12" CMU foundation wall with 2' wide continuous footing and 4" slab on grade
- o Lobby/Garage and First Levels: Structural steel framing of W-shape beams, open web joists, and metals studs on a 4" concrete slab over 1-1/2" metal deck
- o Second and Third Levels: Wood framing made up of 2x8s and TJLs at 16" and plywood floor sheathing
- o Roof framing: Sloped 24" wood trusses at 24"

Special Features

- o Unique shape provides an interior courtyard
- o Historical surroundings and a section of protected vegetation running along the site

Wellington at Hershey's Mill

Nicole Drabousky
Structural Option

<http://www.arche.psu.edu/thesis/eportfolio/current/portfolios/ncd123/>