

Baltimore Washington Medical Center

Women's Center and Inpatient Tower Glen Burnie, MD

Project Information

Name: Women's Center and Inpatient Tower
Occupant: Baltimore Washington Medical Center
Size: 310,300 SF, 10 Stories
Dates of Construction: July 2006- March 2009
Cost: Building: \$59,386,202; Overall: \$68,173,861
Project Delivery Method: CM @ Risk

Project Team

Owner: University of Maryland Medical System
Construction Manager: Whiting-Turner Contracting
Architect: Cannon Design
Structural Engineer: Whitney, Bailey, Cox, & Magnani
Mechanical/Plumbing Engineer: Leach Wallace
Geotechnical Engineer: Marshall Engineering



Architecture

- The façade composed of tan brick veneer, glass curtain-wall, and an EIFS System with ribbon window units.
- Two bridges join the Patient Tower and West Lobby Area to the existing hospital
- Atrium with three angled skylights provides a relaxing space with plenty of natural sunlight .
- Patient rooms, exam rooms, sleep rooms, diagnostic-testing, labor and c-section rooms, and infusion rooms

Structural System

- **Foundation:** 4000psi Concrete Spread Footings and helical piers supporting existing hospital
- **Primary Framing System:** 5000psi Cast-in-place concrete slabs with 6 1/2" drop panels at each column
- **Framing above existing mechanical room:** Steel Truss framing with Precast Hollow-core concrete planks and concrete topping
- **Bridge Framing:** steel framing with 3 1/4" thick concrete slab on composite metal decking.



Mechanical

- Two Air-Handling Units with capacity of 102,000 CFM
- One Air-Handling Unit with a capacity of 45,000 CFM
- One Centrifugal Chiller with a capacity of 1000 Tons
- Two Cooling Towers capacity of 500 Tons serving chiller

Plumbing

- Medical Gas/Vacuum Zone Valve Boxes: vacuum, oxygen, medical air, and high pressure oxygen outlets
- Medical Air Compressor with capacity of 50psi/ 60 SCFM



Electrical

- 13.2KV Primary service distributed
- Secondary service is 480Y/ 277V, 3 Phase, 4 Wire
- One 13.2KV switchgear switches two primary 2000KVA Transformers
- One 13.2KV switchgear switches two primary 3000KVA Transformers
- Thirty-two 480- 208/120V transformers ranging from 30 to 150KVA
- One Emergency Generator Switchgear
- Two 1500KW, 480Y/277V Diesel Engine-Generators
- Two 480V Motors



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<http://www.engr.psu.edu/ae/thesis/portfolios/2008/mlw268/>