

STUDENT SERVICES BUILDING

HOWARD COMMUNITY COLLEGE
COLUMBIA, MD

Jason P. Fair—Mechanical Option

Sponsored by Mueller Associates Inc.

<http://www.arche.psu.edu/thesis/eportfolio/current/portfolios/jpf161>

Project Team

Owner: Howard Community College

Architect: Design Collective, Inc.

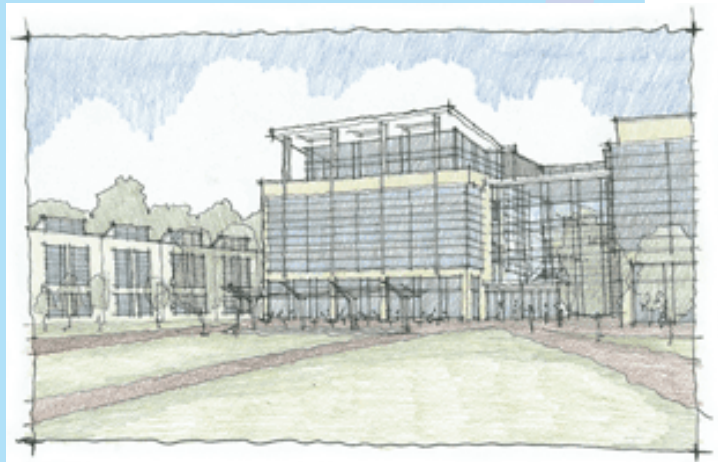
Construction Manager: Riparius Construction, Inc.

MEP Engineer: Mueller Associates Inc.

Structural Engineer: Smislova, Kehnemui & Associates

Civil Engineer: Patton Harris Rust & Associates

Geo Tech Engineer: Froehling & Robertson, Inc.

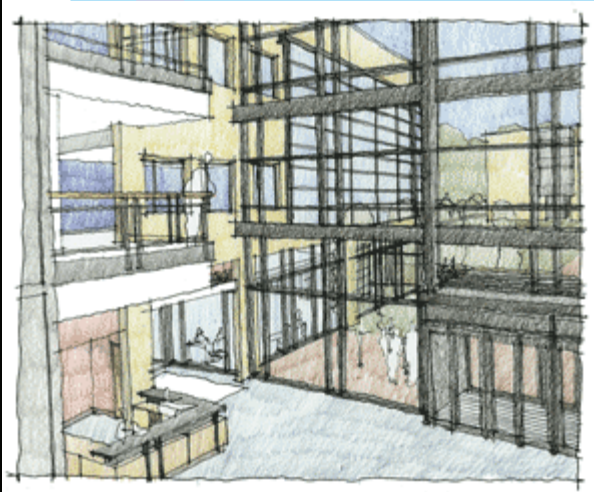


Construction

- Dates of Construction: June 2005 to Dec. 2006
- Actual Cost Data: \$24,650,467
- Project Delivery Method: Design-Bid-Build

Structural System

- Foundation shallow spread footings for columns
- Continuous strip footings for perimeter walls
- 5" thick slab-on-grade with 6x6 wwf reinforcement
- Intermediate floors 3-1/4" lightweight concrete over 3", 20 gage composite metal deck
- Decking on W18x35 beams bolted to W24x55 girders
- Roof 3", 22gage metal deck over steel beams



Mechanical System

- Chilled and condenser water provided by stand-alone chilled water plant
- Chilled water plant connected to plant in mechanical room of the adjacent Visual Arts Building
- Redundancy allows for continuous operation of select loads during plant failure or maintenance
- Two dual fuel (natural gas & oil) 3000MBH boilers
- 180°F hot water supply and 150°F return
- Six AHU's ducted to air terminal units to service each zone

Lighting

- General lighting typical 4ft T8 lamps, compact fluorescent lamps, and electronic ballasts
- Automatic controls for atrium space allow for natural lighting
- Emergency lighting and exit signage supplied from emergency panelboards
- Exterior lighting metal halide
- Control of exterior lighting is provided by photo-cell and time clock

Architecture

- Size: 101,405 sqft
- Stories: 4 floors and basement MER
- Western end of Quadrangle
- 3 story central atrium space with grand staircase
- 4th floor dining room with roof terrace

Electrical System

- Campus 13.2kV distribution system
- Two medium voltage feeders extended from switchgear
- Building voltage distribution 480Y/277 volts
- Power distribution systems have 20% min spare capacity
- Panel boards have 20% min space for future breakers.
- Emergency power supplied by an outside diesel generator