

# THE FORENSIC MEDICAL CENTER



## PRIMARY PROJECT TEAM

**owner:** Office of the Chief Medical Examiner  
**architect:** Gaudreau, Inc./McClaren, Wilson, & Laurie  
**geotechnical engineer:** TLB Associates, Inc.  
**civil engineer:** Gower Thompson, Inc.  
**structural engineer:** Hope Furrer Associates, Inc.  
**landscape:** Mahan Rykiel Associates, Inc.  
**mechanical/security:** Syska Hennessey Group  
**fire/lighting/plumbing:** Johnson Consulting Engineers, Inc.  
**data/telecom:** Sidhu Associates, Inc.  
**acoustics:** Convergent Technologies Design Group, Inc.

## GENERAL INFORMATION

**building function:** Administrative Space for offices, classrooms, conferences; Autopsy spaces; Biosafety Laboratories  
**size:** 121,000 sq. ft.  
**height:** 5 stories plus Mechanical Penthouse / 105 ft. above grade  
**overall project cost:** \$45 million  
**construction dates:** July 2008 to May 2010  
**delivery method:** Construction Manager at Risk

## ARCHITECTURE

Part of new Medical Campus – designed to fit in with master plan for campus  
Brick cavity walls with precast concrete bands and accents, polished granite veneer at base  
First floor parking garage and drive-through delivery area  
Autopsy cooler and freezer storage rooms, High-Security BioSafety Level 3 laboratory

## STRUCTURAL SYSTEM

Ground-floor 6" slab-on-grade with minimum 30" deep grade beams  
24" by 24" cast-in-place concrete columns with 48" diameter drilled pier foundations  
11" thick, two-way, flat plate, normal weight concrete slab typical floor system, 25' x 22' to 30' x 27' bays  
Concrete shearwall lateral load resisting system with 54" drilled pier foundations

## MECHANICAL SYSTEM

Three 28,000 CFM, 100% outdoor air AHUs w/ 2 position constant volume distribution for laboratory spaces  
Two 17,500 CFM AHUs w/ 100% outdoor/100% return air economizers and VAV distribution for office spaces  
Two 365 ton, 30% ethylene glycol chillers; Two 250 BHP fire-tube boilers

## LIGHTING/ELECTRICAL SYSTEM

Three-phase, four-wire, 480/277 V, 3000 A building service  
Distributed to each level via standard conduit & wire distribution risers  
Step-down transformer on each level for 208/120 V requirements  
Emergency 1500 kW, 408/277 V diesel generator  
All lighting fixtures are 277 V  
Recessed fluorescent lighting with high-efficiency T8 lamps  
Compact fluorescent downlights, incandescent fixtures for dimming



**KEENAN YOHE**

STRUCTURAL OPTION

<http://www.engr.psu.edu/ae/thesis/portfolios/2008/ksy113>