STEIDLE BUILDING RENEWAL PROJECT

University Park, Pennsylvania

Project Overview

Size:

100,000 Square Feet

Height:

5 Stories

Occupancy Type:

Mixed Use Facility

Delivery Method:

Const. Manager At Risk

Project Budget:

\$52 million

Project Timeline:

June 2014 — June 2016

Project Team

Owner:

Penn State University

Occupant:

Material Sciences and Engineering Department

Architect:

EYP Architects & Engineers

Construction Manager:

Mascaro Construction Co.



Architecture:

Existing Building

- ♦ Beaux-Arts style exterior
- ♦ Renovated lab and office spaces

Central Wing

- Houses an 80-seat lecture hall, computer lab and three research labs
- Glass-and-Limestone Curtain Wall on the South Side

Electrical:

- 4000 Amp Main-Tie-Main Switchgear
- Three separate electrical systems:
 - ♦ Emergency Stand-By Power
 - Low Voltage Power (120/208V)
 - High Voltage Power (277/480V)
- Localized panelboards for power distribution

Structural:

Existing Building

- Steel column and concrete slab interior frame
- Steel trusses and girders which supports new TPO roofing system

Central Wing

- ♦ Concrete Structure utilizing:
 - Post-Tensioned Beams
 - ◆ Flat Plate Slabs
 - ♦ One-way Beam System

Mechanical:

- ♦ 100% Outside Air System
 - ◆ Two 70,000 CFM AHU's
 - ♦ Two 65,000 CFM EAHU's
 - Serviced by a variety of Reheat Coils, Fan Coil Units, and Terminal Boxes.
- Specialized Portable Exhaust (PEX) Extractors
 - Used for dedicated equipment and bench-work exhaust

Jeffrey Duclos | Construction Option | Advisor: Dr. John Messner http://www.engr.psu.edu/ae/thesis/portfolios/2016/jid5237/index.htm