University of Rochester BME/Optics Building

Overview/Architecture

- 100,000 sq ft facility for acclaimed Biomedical Engineering and Optics Departments at U of R
- Total Project Cost: $37.7 million
- Construction: Apr. 2005 – Dec. 2006 (expected)
- Design – Bid – Build approach
- 5 stories above grade, plus mechanical penthouse and partial basement
- Includes laboratories, classrooms, offices, and a lecture hall
- Functionally connected to Wilmot Hall, although structurally independent

- Pedestrian bridge on 2nd floor to nearby CSB Building
- 80 foot atrium inside main entrance, lit by skylights
- Limestone and brick façade, with channel glass at stairwells and glass curtain wall at entrances

Mechanical

- Existing utility tunnel provides high pressure steam, pumped condensate, cogeneration water supply/return, and chilled water supply/return
- Air handling units in mechanical penthouse utilize glycol preheat, reheat coils, chilled water coils, and humidifiers
- Special consideration to pressurization and ventilation of laboratories
- Unique plumbing needs in laboratories

Owner:	University of Rochester
Architect:	Perkins & Will
Structural Design:	LeMessurier Consultants
Associate Architect/ Struct. Documentation:	SWBR Architects
MEP:	M/E Engineering, P.C.
General Contractor:	LeChase Construction

Project Team

- Foundation consists of piles/pile caps with grade beams at exterior walls and above utility tunnel
- Steel columns support composite steel beams and girders
- 4 ½ " typical floor slab on 3" composite deck
- Chevron bracing provides primary lateral support

Structural

- Lighting: Surface mounted fluorescent in laboratory and mechanical space, Recessed downlights in corridors, lounge areas, and lecture hall, Recessed fluorescent in office space
- 277/480V substation powered by 1000/1500 kVA 3 Φ cast coil transformer
- 120/208V substation powered by 750/1125 kVA 3 Φ cast coil transformer
- 00kW diesel emergency generator with bypasses for life safety and critical equipment

Lighting/Electrical

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