



**University of Portland**  
**Portland Oregon**  
**Building Design**

**SCHOOL**

The University of Portland is a private comprehensive Catholic university located in Portland, Oregon. The University is a vibrant intellectual community of 3,600 students and 316 professors.

**ABSTRACT**

In 2010, the University of Portland's Donald P. Shiley Hall earned LEED® Platinum certification. The 20 million dollar project included renovation of the existing building and an extensive addition to almost double the total usable area to 80,000 sq. ft. Sustainable features include: a green roof, rain gardens for storm water management, occupancy sensors, water-saving plumbing fixtures, operable windows, use of irrigation groundwater to cool the hydronic floor, extensive day-lighting, use of materials with recycled content, as well as recycle of 92 percent of construction waste. Energy-efficient features include: new insulation, double glazed windows, intelligent lighting fixtures, energy-efficient HVAC system, natural ventilation, and electronically tintable glass in the gallery.

**GOALS AND OUTCOMES**

**Goals**

There were a number of goals established in the early planning stages of the project:

- Expand the usable space to accommodate 475 engineering students.
- Design laboratories to meet faculty needs.
- Provide a building that would attain LEED Platinum certification.
- Modernize the building infrastructure, including water, wastewater, HVAC, electrical, and data networks.
- Include secure space for the University's data center.
- Provide additional classrooms for campus-wide use.
- Provide large, tiered, interactive classrooms.
- Provide a user-friendly building with space for informal meetings and study.

**Accomplishments and Outcomes**

All of the above-stated goals were met with tremendous success. The new building houses administrative areas with 36 offices, 11 laboratories, a 4,000 sq. ft. data center, three flat classrooms, two tiered classrooms, two computer classrooms, an open computer lab, two conference rooms (one with video conferencing capability), a two-level study room, several spaces for informal meetings, as well as metal, wood, and fabrication shops.

The natural environment of the campus was considered in conjunction with the project. The campus includes a forested area on a bluff that borders the campus along the Willamette River. As part of the effort several acres were set aside as a permanent natural area.

## **Challenges and Responses**

There were two major challenges throughout the design and construction process. The first related to budget; the desire to incorporate sustainable features and attain LEED Platinum certification always led to consideration of cost issues. The architect, contractor and university personnel worked cooperatively to include sustainable features, and meet the budget. The second challenge was more mundane; some classrooms, labs, and offices remained operational throughout the construction process. The contractor worked very cooperatively with university personnel to schedule activities to minimize disruption.

## **Campus Climate Action: Your School's Carbon Footprint**

This project is part of a broader effort at the University of Portland to become carbon neutral by 2040. To accomplish this goal, the University has established a climate action plan (<http://acupcc.aashe.org/cap/504/?id=504>). The effort includes concrete steps to be taken, involving all aspects of the campus. Even before the plan was adopted, and before the LEED rating system was established, the University incorporated numerous sustainability features into the design and construction of Swindells Hall.

## **Commentary and Reflection**

This project had the great fortune of having support from all participants. The University of Portland administration is committed to sustainability; it recognized the value of creating a healthy, sustainable academic building. The architect, contractor, and faculty all cooperated to assure that the initial goals were met, resulting in a building that is attractive, functional, and designed to meet the needs of future inhabitants.

## **ENGAGEMENT AND SUPPORT**

### **Leaders and Supporters**

Planning for the building started with a faculty committee years before construction started. The committee created a document detailing the space needs to successfully create and maintain an environment of academic excellence. In addition, a School of Engineering advisory committee, consisting mostly of alumni, provided input and essential support. The major financial contributor, Darlene Shiley, donated funding for the building in honor of her husband, Donald P. Shiley a 1951 graduate of the University's School of Engineering. The Shileys were involved in the planning and design of the building. Soderstrom Architects coordinated closely with the faculty and the Shileys to design a functional and attractive building. During the construction process, the architect, a faculty representative, the contractor (Turner Construction) and Paul Luty (Director of Facilities and Construction) met on a weekly basis to coordinate activities.

### **Funding and Resources**

The project cost \$20.58M. - \$12M of the project costs came from the Shiley donation. A second major donation was from Ed and Sharon Sweo, graduates of the university.

### **Education and Community Outreach**

A major impact beyond the university is the publicity received as a result of the sustainable features of the building. More directly, numerous tours have been conducted to various groups, including architects planning similar structures. These tours will be continued to be conducted whenever requested. Numerous students groups have been, and will be guided through the building. These tours, along with the overall sustainability effort on campus, help instill in students a commitment to sustainability resulting in a wide-ranging positive impact.

## **CONTACT INFORMATION**

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James W. Male  
Sweo Chair in Engineering  
School of Engineering  
University of Portland  
5000 N. Willamette Blvd.  
Portland OR 97203  
Phone : 503-943-7176  
Email: male@up.edu

Paul Luty  
Director of Facilities Planning and Construction  
University of Portland  
5000 N. Willamette Blvd.  
Portland OR 97203  
Phone: 503-943-8874  
Email: luty@up.edu

Dan Danielson  
Managing Principal  
Soderstrom Architects  
1200 NW Naito Parkway  
Suite 410  
Portland OR 97209  
Phone: 503-228-5617  
Email: dan@sdra.com

### **MORE ABOUT YOUR SCHOOL**

The University of Portland is a private comprehensive Catholic university located in Portland Oregon. The University is a vibrant intellectual community of 3,600 students and 316 professors. UP is a residential institution with 54% of all students (94% of freshmen) living on-campus. The main campus is approximately 130 acres. The recently acquired adjacent River Campus is about 35 acres of undeveloped land. The University has 34 buildings on its main campus, two small off-campus office buildings, and 38 rental houses. The School of Engineering currently has 460 students and 23 faculty members. Academic programs include: Civil, Mechanical, and Electrical Engineering, as well as Computer Science and Engineering Management. UP became a signatory of American College & University Presidents Climate Commitment (ACUPCC) in 2007. The University has a Presidential Advisory Committee on Sustainability, demonstrating the University's commitment to meet the environmental, social, and economic need of present generations without compromising the ability of future generations to meet their own needs.