High Performance Public Green Building Report 2016

B-15



Olympic College Humanities and Student Services

LEED Gold



Project Specifics

Gross square footage: Construction cost: Project occupied: Energy savings: annually; Water savings: Waste recycled: Added LEED cost: Incentives: LEED Payback: CO₂ savings: 85,012 sf \$ 21,636,034 (MACC) 01/2010 \$35,965 and 1,221,528 MMBtus

\$2,889 and 501,942 gallons annually
581.9 tons / 98.6%
\$104,407; 0.43 % of Construction Cost
No utility incentive funding was received
2.69 years
162 tons annually

Design and Construction Team Owner's representative: Barbara Martin, VP of Ad

Project manager: Architect: Associate Architect: Planning Structural engineer: Mechanical engineer: Civil engineer: Electrical engineer: Landscape architect: LEED consultant: Barbara Martin, VP of Administration, Olympic College, Bremerton, WA Ronnie Hill, DES Yost Grube Hall Architecture Rice Fergus Miller Architecture &

KPFF Consulting Engineers Notkin Engineering SVR Design Co. Interface Engineering SVR Design Co. Green Building Services, Inc.

Sidney Hunt, LEED Green Building Advisor Phone: (360) 407-9357 Email: <u>sidney.hunt@des.wa.gov</u> The new Olympic College Humanities and Student Services Building completes a trio of new academic buildings that form the new gateway for the campus.

The building includes a three-story academic wing and a two-story Student Services wing.

The academic wing provides a new home for the Division of Social Sciences and Humanities, consolidating administrative and teaching spaces that had previously been scattered among a number of buildings on campus. The twenty-five new teaching spaces include two distance learning classrooms, a computer-based language lab, an anthropology lab and a 144 seat lecture hall as well as general-purpose classrooms. New spaces in the academic wing also include Social Sciences and Humanities Division and faculty offices and the Writing Center.

The Student Services wing arranges student support functions around a skylit two-story atrium for convenient one-stop service. Student Services programs brought together in the new building include Records & Registration, Financial Aid, Advising, Counseling, and centers for Veterans' Programs, Women's Programs, Access Services, Tutoring, Testing and Careers.

The Humanities and Student Services Building takes advantage of natural lighting during the day. The offices and classrooms incorporate operable windows that allow building operators to take advantage of the natural air currents to minimize the use of mechanical heating and cooling.



Washington State Department of **Enterprise Services**

Sustainable Sites

Land Improvement: Site selection and Brownfield redevelopment are important factors in reducing environmental impact; the building location takes advantage of existing infrastructure, utilities and public transportation which help protect Greenfields and preserve natural resources. Open space around the building will be retained for the life of the building.

Alternative Transportation: No new parking was developed as a result of this project. Regular bus lines serve the campus and sufficient bicycle parking is provided around the building with nearby shower and changing facilities thereby promoting alternative fuel transportation.

Light Pollution Reduction: The site lighting is full cutoff with no uplight to reduce sky glow and the unnecessary lighting of the sky. Interior lighting was aimed away from windows and skylights for efficient use of light.

Water Efficiency

Irrigation: The landscape design incorporates plant material suited for the region to reduce long-term irrigation needs and were grouped to increase water efficiency by reducing water consumption in the landscaping by 59 percent over conventional means.

Water Efficient Fixtures: The building reduces water use by 20.4 percent via selected low-flow fixtures.

Energy and Atmosphere

Natural Light: The Humanities and Student Services Building takes advantage of natural lighting during the day. The offices and classrooms incorporate operable windows that allow building operators to take advantage of natural air currents to minimize the use of mechanical heating and cooling. Daylight sensors continually monitor available natural light and turn off fixtures when adequate daylight is available. Sunshades on the south facing windows reduce glare, solar heat gains and the need for artificial lighting.

Heating and Cooling: The building's increased energy performance of 40 percent better than ASHRAE 90.1-1999 lessens the environmental impact of energy production and improves energy costs. This is accomplished by using selected high efficiency direct/indirect lighting fixtures, occupancy sensors, day lighting controls, increased wall and roof U-values, high efficiency glazing and a heat recovery system. The HVAC consists of four VAV air handling units with cooling provided by chilled water coils connected to a VAV air-cooled chiller. Tempering of the outside air at the AHUs and individual VAV boxes is provided by the campus hot water system. Heat exchangers at each AHU pre-heat outside air prior to introducing it to the heating coil. The heat exchanger is used rather than utilizing return air for preheating or pre-cooling of outside air.



Lighting: Efficient lighting fixtures use the latest technology to reduce glare, improve worker productivity, and generate visual comfort. Occupancy sensors turn lights off when people are not present.

Material and Resources

Occupant Recycling: Recycling collection areas were located throughout the building to provide staff and students with the opportunity to divert waste from landfills.

Recycle Materials: 35.48 percent of materials in the project contain recycled content Recycled materials included concrete, steel, gypsum, roofing materials, etc.

Local Materials: 33.91 percent are manufactured regionally and 13.08 percent are extracted regionally. Regionally sourced materials include wood, brick, steel, glazing, aggregate, etc.

Indoor Environmental Quality

Low-emitting materials: Indoor air quality will be maintained with the use of low-emitting adhesives, paints, carpets, and composites.

Innovation in Design

Education: Olympic College will be providing signage and tours of the Humanities Building focused on sustainability in an effort to educate the community about green building practices.

Green Cleaning: The cleaning staff will be trained in green cleaning practices and their use. Green Seal Certified products will be used.

Integrated Pest Management: The College staff will use the least-toxic means possible to address any potential pest concerns.

Exemplary Performance: 98 percent, or more than 580 tons, of the building's construction waste was diverted from landfill.