



QUICK FACTS

The Challenge:

- Take existing design and change it in ways that reflected more environmentally-sound practices

The Armstrong Solution:

- [MARMORETTE™](#) linoleum was selected because of the flooring's combination of natural ingredients and long life cycle.
- Second building to receive a platinum LEED rating, the highest certification awarded by the U.S. Green Building Council (USGBC). A major contributor to this certification was the use of linoleum as one of the main flooring materials.
- Features 85,000 square feet of space which is the greenest building in California and the greenest laboratory building in the nation.

Product Specs:

- Biodegradable natural product, made from linseed oil, limestone, wood powder, resin, cork powder and organic pigments.
- Durable product and has a long life cycle.
- Cork ingredients help absorb impact and sound and provide a comfortable walking surface.
- Feature fine marbling that is characteristic of classic linoleum.

University of California's Bren Hall

When officials at the Donald Bren School of Environmental Science & Management at the University of California, Santa Barbara realized they needed a new building to call home, they decided to take an existing design and change it in ways that reflected more environmentally sound practices.

And change they did, to the point where Donald Bren Hall was the second building in the country to receive a platinum LEED rating, the highest certification awarded by the U.S. Green Building Council (USGBC). Featuring 85,000 square feet of space, it is the greenest building in California and the greenest laboratory building in the nation.

To achieve this level of certification, Donald Bren Hall was required to attain the highest marks in five major areas of sustainable design: planning sustainable sites, improving energy efficiency, conserving materials and resources, enhancing indoor environmental quality and safeguarding water.

30,000 Square Feet of Linoleum Used

A major contributor to that certification was the use of linoleum as one of the main flooring materials. Compared to many other floor coverings, linoleum is considered one of the most environmentally responsible flooring products because the natural raw materials used in its production are readily available and mostly renewable.

According to Perrin Pellegrin, the school's Special Projects Coordinator, linoleum was chosen as one of the main flooring materials in Bren Hall for two reasons – it is a biodegradable natural product, made from linseed oil, limestone, wood powder, resin, cork powder and organic pigments and it's a durable product that has a long life cycle.

Marmorette™ linoleum from Armstrong was chosen for use in the building. Available in 58 colors, Marmorette features the fine marbling that is characteristic of classic linoleum. In addition, its cork ingredients help absorb impact and sound and provide a comfortable walking surface.

Nearly 30,000 square feet of Marmorette linoleum are installed in the laboratories and hallways of the school's laboratory wing. Two neutral colors – Parchment Beige and Light Chocolate – were chosen. Pellegrin notes that the colors were selected for both aesthetic and energy-related reasons. "We wanted colors that matched the building's other interior finishes," she says. "And, we wanted colors that would reflect natural daylighting and thereby help reduce energy requirements."

School Used LEED Rating System

Established in 1991, the Donald Bren School of Environmental Science & Management offers masters and doctorate degrees in areas of specialization ranging from Coastal Marine Resource Management to Corporate Environmental Management.

The entire school is now housed in Bren Hall. Designed by Zimmer Gunsul Frasca (ZGF) Partnership of Los Angeles, the building features four floors of teaching and research laboratories,

a center courtyard, and four floors of classroom and office space.

The design process for the building began in 1992 even though the school did not begin to accept students until 1996. Following passage of a state bond in 1997 to fund the cost of construction, greening of the building began in earnest in 1998 with the support of the Bren School's Advisory Board. During the greening, ZGF introduced the Bren School to the USGBC and the project became part of its Leadership in Energy and Environmental Design (LEED) 1.0 Pilot Program.

The school used the LEED rating system both as a framework for exploration of sustainable design strategies and as a rating system that allowed it to objectively judge its own progress. Of the 40 buildings participating in the pilot program, only 12 achieved certification by USGBC, which awards bronze, silver, gold and platinum ratings. The Chesapeake Bay Foundation's 31,000 square foot Phillip Merrill Environmental Center, a small office building in Annapolis, Maryland, was the first to receive a platinum rating.

Benchmark for Future Construction

Now that the building is completed, Donald Bren Hall is being used as a benchmark for setting new standards and implementing green building guidelines for all future construction at the UCSB campus. It is also a pilot project for the University of California and will help promote sustainable practices throughout the entire UC system.

Commenting on the new facility at the opening ceremonies in April, 2002, Dennis Aigner, Dean of the Bren School, explained that "Bren Hall will be a living laboratory for sustainable green building practices and materials. The installation of elements within the building is varied so that students and faculty will have the opportunity to use the building for comparison studies and life cycle analysis."

At the same ceremony Congresswoman Lois Capps expanded the scope of the importance of Bren Hall, stating, "This building is a role model not only for UCSB, but also for other university campuses throughout the state.... and the country."