RICHARD WEEKS HALL of ENGINEERING

SUSTAINABILITY CASE STUDY

Summary

The Richard Weeks Hall of Engineering is the School of Engineering's new interdisciplinary facility. It is the anchor for the School of Engineering on the Busch campus. It is the entranceway for the engineering community, industry partners, and the public. The new building features collaborative work spaces, smart classrooms, living laboratories, and dedicated student space. Weeks Hall is named in honor of 1950 alumnus, Richard N. Weeks, who chairs Weeks Marine, one of the leading marine construction, dredging and tunneling firms in the United States and Canada.

Weeks Hall of Engineering is designed to bring together students, faculty, and industry to pursue new solutions and technologies in the areas of sustainability, energy, and advanced manufacturing. The 100,000-square-foot facility sustainably designed as a modern learning environment featuring flexible learning laboratories for advanced manufacturing and sustainable resources and systems, smart classrooms, collaborative work space, dedicated student space, and advanced technology integration. A play space for integration.

The building is built to be a LEED Silver Building as designated from the US Green Building Council. This case study will provide information on credits and design strategies that can be replicated in other buildings. Along with being built sustainably it is also a building to study sustainable systems. http://weekshall.rutgers.edu/sustainable-systems

The building has a living lab area to research sustainable practices and principle in energy. Within the lab students will be able to view energy utilized at the University along with monitoring the University's various control systems.

Sustainable Sites

Weeks Hall is built with Development Density and Community Connectivity in mind. The building is central to Busing and offers bicycle storage and changing rooms. There are changing stations for alternative vehicles. The area surrounding the building had minimal disruption and is restored to protect habitat. Indigenous plants were used.

Water Efficiency

In keeping with landscaping, water efficient landscaping is used. No irrigation is used. In the interior spaces innovative waste water solutions were used with a 30% reduction in water use.

Energy and Atmosphere

The building uses advance refrigerant management and utilizes efficient systems for an 18% reduction in energy. The building was commissioned using enhanced commissioning.

Materials and Resources

During construction 75% of the waste was diverted from landfills. 10% of the building is constructed using recycled content. Regional materials and certified wood were used in construction.

Indoor Environmental Quality

During construction an IAQ Management Plan was in place. Low emitting materials were used throughout the building. Control systems were utilized for both comfort and lighting.