THE LAVIN-BERNICK CENTER – TULANE UNIVERSITY

by

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Source: http://greensource.construction.com/projects/0807_LavinBernickCenter.asp
Photo Credit: Paul Crosby

The 2009 reopening of the renovated Lavin-Bernick Center on the Tulane University Campus in the City of New Orleans is an example of sustainable design as well as a symbol of recovery after the city was damaged by Hurricane Katrina. The building project was 33% new construction and 67% renovation. The redesign added approximately 40,000 square feet and extended the useful interior spaces by linking the interior spaces to outdoor spaces using porches and terraces. Existing oak trees with extensive root systems were preserved for shading the building and courtyard spaces. The Lavin-Bernick Center was one of the AIA/COTE[1] Top Ten Green projects for 2008. A summary of the project follows and the full case study of this project can be found at http://greensource.construction.com/projects/0807_LavinBernickCenter.asp[2]

The original 110,000 Square foot building was completed in 1959 and modified several times. It had been compartmentalized, sealed up, and air-conditioned. The decision was made to reuse parts of the existing concrete structure, as well as to use passive cooling (shading and ventilation) and daylighting. Reusing parts of the structure saved Tulane approximately $8 million dollars, as well as the embodied energy from the production of new concrete.

A cooling strategy that uses both natural ventilation and mechanical air conditioning enhances the inside/outside experience. In the summer, the building can be cooled in a conventional way while in fall, winter, or spring the building can rely on natural ventilation. A building management system allows the building to remain open when weather conditions permit. Air is moved by fans, cool/dry

[1] **The American Institute of Architects Committee on the Environment**: http://www.aiatopten.org/hpb/overview.cfm?ProjectID=840

[2] **The Louisiana Department of Natural Resources disseminates information about green building and the green building industry as part of the mission of the State Energy Office.**

radiant surfaces, porous air cooled metal ceilings, chilled water walls, and stack effect ventilation through the skylights.

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Glass replaced the blank masonry facades of the original building to increase natural light into the interior. Window walls are protected from solar heat gain by a variegated louver shading system.
Other shading devices include trellis plant scrims, trees, and umbrellas. Light fixtures in the perimeter spaces have auto dimming to adjust to varying natural light levels.

Since the building is located in New Orleans, which is a city with a very distinctive architecture, the design team had the challenge of making a contemporary, environmentally friendly, space that did not clash with the city's traditional architecture. The building's layered facades, louvers, overhangs, and terraces are a modern interpretation of the more traditional balconies, trellises, and courtyards.