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Architects Dig Going Green With Office Building

By Kate McGraw
For the Journal

SANTA FE— The new Lloyd & Associates Architects building attracting attention at the corner of Paseo de Peralta and Halona is more than a pretty face for the firm.

It's a workhorse. Lloyd & Associates President Wayne Lloyd expects the building to give his firm a 20 percent utility savings from solar-

powered electricity and organized water collection, plus another 10 to 15 percent in increased worker productivity.

"It cost more to build such a sustainable building but not a whole lot more," said Lloyd. "We spent $146 per square foot constructing this building and might have done a more conventional building for $130 to $135. But when you look at the life cycle of the building, we think we will get it back three- or four-fold over a 15-to-20-year period. And that's just counting the energy savings. Any business' biggest cost is salaries. If, as studies predict, we increase worker productivity 10 to 15 percent, there will be a far greater savings."

The general contractor was Klinger Constructors LLC of Albuquerque.

Lloyd & Associates is in the process of certifying the building with the U.S. Green Building Council as a Leadership in Energy and Environmental Design (LEED) building. When that certification comes through, probably in January, this edifice will be the first LEED-certified building in Santa Fe and the first private building with the LEED certification in New Mexico.

Dan Featheringill, a project manager with the firm, is a LEED-accredited professional. The certification process takes about three months, he said. The process is "90 percent documentation" of elements of the design, construction and operation of the building that earn points based on Green Building Council standards for sustainable buildings, Featheringill said.

The decision to go for LEED certification was an easy one, Lloyd said. "We have been doing many aspects of energy-efficient design for more than 20 years," he said. "We designed buildings with active solar collectors in the late '70s and early '80s, when there were tax incentives. Early on with this project, we said if we were going to be doing a new building for ourselves, we ought to have our building walk our talk. We were determined to make the building as sustainable as possible."

Deciding to include energy-efficient and recycled materials was the easy part. The overall design of the building was trickier because of the site. The infill lot on gallery row was not huge, and Lloyd and his partner Allen Baer knew they needed at least 12,000 square feet to accommodate the firm's five associates and necessary design areas, plus a 2,200-square-foot gallery leased to Linda Durham Contemporary Art in front.

A one-story building would consume the entire parking lot the firm needed, so it required two stories, but the city Historic Design Review Board does not allow buildings taller than 15 feet in that district. The solution was to go down, rather than up, which explains why Santa Feans spent most of last winter speculating about the deep, square hole being dug at that corner.

The significance of the design is that the basement is not actually a basement— it's a "lower level," said associate architect Salomon Velasquez, who works on that level. The excavation was deliberately large enough to create two-story-deep courtyards on three sides, which bring large doses of daylight into the lower level through glass walls opening on the courtyards. Additionally, the building has a large, energy-efficient skylight in the roof that floods the center of the building with light.

"Sufficient and indirect daylight comes from all directions," Velasquez said. "There's no sense of working in a basement."

It is the day lighting, accompanied by elements friendly to an interior environment, that make the Lloyd & Associates building such a pleasant place to spend a work day, said associate Celina Crimella, who designed the interior finishes.

"All of the interior finishes are made of sustainable materials," Crimella said, noting linoleum and cork floors, wood from a dance-studio floor recycled into the library bookcases, and the natural clay plaster on the walls.

The playful red and yellow of the linoleum floors interacts with the industrial feel of exposed steel beams and ducts.

"In a sense, we're bringing the outside inside," she said. "It feels very warm. And when the sunlight plays on the walls, it's very beautiful, upstairs and downstairs."

Beauty is one thing, and energy sustainability is another, said the practical Featheringill. The sustainable elements of the building are what will earn the coveted LEED certification for saving natural resources and preserving the environment. And they are the elements that will pay back the construction costs three and four times over during the life of the building.

Those elements include a number of recycled materials, such as all of the reinforcing steel rebar and steel support beams, which were recycled from other job sites; industrial carpet in the lobbies and rubber flooring in the kitchen, made from recycled tires and other materials; Forbo linoleum, made in Ireland from recycled and natural materials; Clayote interior plaster from Santa Fe's American Clay Co.; cork flooring in the small conference room; natural cementaceous plaster on the exterior as opposed to acrylic stucco, and rock wainscoting on the exterior, composed of rock from the job site.

Other construction and design elements include:

- Rastra walls, a concrete form system made of a lightweight material called Thastyron, which uses 85 percent recycled polystyrene products;

- Gas-fired, hot water-radiant floor heating that is organized into about 30 zones throughout the building, so heat only goes to rooms in use, minimizing energy consumption for heat;

- Photovoltaic cell installations on the roof (still in the process of installation) that are expected to provide more than 10 percent of the building's electricity;

- A roof water-harvesting system collects all rain and snow water that falls on the building envelope and stores the precipitation through gravity feed in drain lines along the sides of the building";

- Motion-activated, computer-controlled lighting throughout the building that turns lights on when someone enters a room and off when they leave;

- Night purge evaporative air conditioning, a two-stage cooler that has operable dampers to the outside.

Wayne Lloyd is proud of his firm's building, both in its everyday applications for his associates and as a good example of sustainable design. "I always considered myself an informed environmentalist, rather than a radical environmentalist," he said. "I don't splash paint on SUVs, even though they are gas-guzzlers, because I know that all the vehicles on our roads are using 10 percent of our natural resources. Our buildings are using 45 percent. So as architects, we have a far greater opportunity to influence sustainable use of resources. How can we in good conscience continue to build the same way? I don't think we can."


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