

At 435 Indio Way, old ideas and modern uses lead to savings - Silicon Valley Business Journal

Sunnyvale's 435 Indio Way office building was rebuilt to be so smartly insulated that one night this past winter, when outdoor temperatures dipped to 28 degrees, the building's overnight interior temperature dropped just four degrees — to 64 — without the aid of heating.

That is how good design can make a \$90,000 annual utility bill disappear.



The facility at 435 Indio Way was remade to be a net-zero building — a structure that... [more](#)

Bruce Damonte

Built for [Hewlett-Packard](#) in 1973, the 31,800-square-foot building had been empty since 2006 and was subsequently acquired in 2011 by WTA Indio LLC for \$4.6 million. With a history of developing more than 2 million square feet of space, developer Sharp Development set a goal to redesign the structure into a net-zero energy building — a structure that creates as much energy as it uses.

“We wanted to prove that this type of sustainable renovation is not only cost-effective, but actually more profitable than the old way of doing things,” said [Kevin Bates](#), president of Sharp Development.

Working with the Integral Group, the developer rebuilt the project to include roof-mounted solar panels as well as skylights, electrochromic (self-tinting) windows and superefficient LED lighting systems.

With such windows and skylights in place, natural light illuminates the building from an hour after sunrise until an hour before sunset, Bates said.

Less conventional is the symphony of computer-programmed automation that brightens and dims the lighting, opens and closes the skylights and windows, and turns on and off the extra-large interior fans, all to maximize natural light and minimize air conditioning or heating requirements.

The traditional concept of insulation is reversed because the building's interior concrete walls provide an outstanding "heat sink" that keeps temperatures stable. With that in mind, the building was insulated not from the interior, but from the exterior, using a ceramic-based coating that doesn't require painting.

Granted, aside from the computer programming, many of the "green" building methods used in 435 Indio date back decades, if not centuries. Pre-air-conditioning-age architects used shading, ventilation and fans to keep interior temperatures mild, while a visit to a typical ancient European cathedral in the heart of summer will prove how thick, heavy walls and their heat-absorbing capabilities can keep interior spaces relatively cool, said [John Andary](#), principal of Integral Group.

Still, the process isn't exactly cheap. The renovations cost about \$152 per square foot, compared to about \$104 a foot for a conventional rebuild. But Bates notes economic benefits: Utility bills are eliminated, and the building's HVAC system is about a quarter of the size of one on a similarly sized conventional building. Andary added that the HVAC system only needs to run about 15 percent as often as that of a conventional building's system. With negligible utility bills and lower repair and maintenance obligations, Bates estimated that the renovation strategy added about \$56 a square foot to the building's value, making such green renovations a cash-flow-positive proposition.

And that work paid off more directly this past June. [Ingram Micro](#) signed a lease in June for its Shipwire global fulfillment division to occupy the building.

"Developers get a pretty bad reputation for always wanting to build the cheapest thing possible, and usually it's spot on," said Andary. "But Kevin said this could turn out to be better than 'business as usual,' and we helped him prove that point."