

Nuts and Bolts of Eco-Building Gets Down to Sorting Debris in Bins

Contractors Use Waste Management Services to Reach Sustainable Goals

BY NED RANDOLPH

You can credit global climate change or Al Gore, but whatever the reason, building green is all the rage these days.

From designing low-energy mechanical systems to recycling construction debris on-site, an evolving certification system launched nearly a decade ago by the U.S. Green Building Council has become the base-line instrument for determining a building's level of environmental sustainability.

The green building rating system is called Leadership in Energy and Environmental Design, or LEED, and it awards points for environmentally sustainable practices.

Two of those points relate directly to construction waste management, which are programs touted by recycling and waste management services companies, Edco and Houston-based Waste Management Inc.

A contractor that recycles, for example, 50 percent of the construction site debris, is awarded one point. A contractor that recycles 75 percent of its construction debris is awarded two points.

"The more points you get, the higher the certification level," said Eric Gradyan, project manager for **Reno Contracting** in San Diego, which is building an 85,000-square-foot lab and office complex and parking garage in La Jolla for **BioMed Realty Trust**.

"It's become a pretty big movement. The big awareness I think is starting now,"

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— **Charlie Christenson, consultant
Brummitt Energy Associates Inc.**



said Gradyan, who supervises about 250 tradesmen on-site. "A year ago, it really started gaining momentum. It's talked about on just about any project we have negotiations with. It's not always done, but it makes sense."

In the United States, buildings account for 65 percent of electricity consumption, 36 percent of energy use, and 30 percent of greenhouse gas emissions, according to the U.S. Green Building Council, which has registered more than 11,150 LEED projects.

Sorting Services

Trash handler Edco, for instance, will provide a service that hauls away a single bin and sorts the debris off-site, achieving the 50 percent threshold. To reach 75 percent, the sorting must be done on-site in multiple bins, Gradyan says.

"It all depends on the size of the job. If you've got a tight job, it's tough to manage. You only have so much space to put a Dumpster," he said. "If you're downtown at a small site and you're building a high-rise, it's more difficult."

Mike Gallen, a project manager for the San Diego office of PCL Construction Services Inc., is recycling 75 percent of the unused construction debris for an 80,000-square-foot music school for UC San Diego.

Each type of debris is being dumped

into a dedicated garbage recycling bin.

"We have one bin for metal scrap, one for concrete, one for wood and one for drywall, another one for just trash waste," said Gallen, who supervises about 150 tradesmen on the \$45 million project.

"We instill in our subcontractors that when they're going to a Dumpster, they're to have a clean debris load in the right Dumpster," he said. "It is an effort to make sure all of these guys are doing their part to get the materials in the right container."

Gallen says Denver-based PCL Construction Services recently switched from Waste Management to Edco on the project because Waste Management was not able to recycle drywall. Without drywall recycling, the contractor would fall short of the 75 percent recycling requirement set by UCSD.

The university will be employing the same methods outlined by the U.S. Green Building Council, but will not try for LEED certification because of the extra paperwork and documentation required, he says.

"The university has elected to just integrate the green building into the design," Gallen said. "The thought in the industry is that it takes a substantial dollar spend to get a building certified."

The project will use the same carpeting, roofing systems and other aspects

employed for LEED certification — without having to spend the money on extra paperwork, he says.

LEEDing The Way

San Diego-based **Brummitt Energy Associates Inc.** consultant Charlie Christenson says that LEED certification, for better or worse, has become synonymous with building green — even though it's not quite sacrosanct.

"A lot of people use the LEED standards to define their level of green — it's certainly taken off in a big way," he said. "I don't think anyone can claim LEED is a perfect system. I certainly will argue that LEED is a starting point and widely accepted definition of ways to start greening a project. There are definitely ways that LEED comes up short, but it's a place to start and a consistent base line for projects around the world."

"It is more difficult," said Peter Wheeler, assistant project manager for **Harper Construction Co.** in San Diego, which is building LEED-certified projects at Marine Corps Base Camp Pendleton. "You have to take every component from construction phase to design phase — it's a lot more time consuming. It takes much more manpower."

All construction projects at Camp Pendleton will be LEED-certified, says Wheeler, who is also helping to oversee a \$44 million barracks and mess hall project as well as an \$8 million renovation of existing barracks.

Harper Construction expects to break ground on the projects in two months, Wheeler says.

"When we start the demo portion of the project, we'll have a demo contractor keep track of what's going to the recycle centers and how much," he said. "We try to get to a certain percentage."