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JULY 2010

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BUYERS' GUIDE ISSUE



RECYCLED AGGREGATE

RCP Block's 30,000-ton regimen



ICC-ES certifies RCP Block's high recycled-content CMU

After two decades of crushing plant culls and split-off pieces on site, then using recycled 3/8-in. minus aggregate in new mixes, RCP Block & Brick Inc. has moved to even greener pastures. The San Diego market producer is now processing demolition concrete—free of debris, asphalt and chlorides—to obtain crushed aggregate of quality sufficient to join cull- and split-derived material.

While the southern California building market could be better, the producer is hard pressed for a more opportune window to approach architects, engineers and design/build contractors—especially those performing military, education and other public work—with concrete masonry units of high recycled-material content.

"In the early 1990's, it became a good business practice to come up with a way to reclaim by-products from our operation. We're in a market where raw materials are limited and expensive, and hauling to landfills is costly," says Mike Finch, RCP president and 2009 National Concrete Masonry Association chairman. "We have put the time and energy into recycling aggregates from sources that are recognized as preconsumer (plant culls, split-offs) and post-consumer (demolition con-

crete) waste. It has always been a priority of ours to be respectful of and conservative with any of our resources natural or otherwise."

Much testing has led RCP to develop a mix design with a minimum of 25 percent post-consumer. This quantity enables design and construction professionals to realize up to two rating points in LEED [U.S. Green Building Council Leadership in Energy and Environmental Design] projects or jobs where owners or designers reference alternatives such as California Green Building Code or Coalition for Habitable Public Spaces.

Regardless of a customer's targeted standard, RCP Block has paced a trend in which future suppliers to green building work will be required to have third-party certification of claims or product attributes tied to rating points. The producer is the first in concrete masonry to obtain an International Code Council Evaluation Service (ICC-ES) Sustainable Attributes Verification and Evaluation (SAVE) report on high recycled-content block. These units can be specified and manufactured on projects that have a building rating system as part of the specification.

"The SAVE report verifies best management and manufacturing practices and gives

the building industry a confirmed level of performance of recycled content," says RCP Vice President of Manufacturing Peter Rodvold. "Self-certification is subject to personal biases. "Third-party verification such as SAVE should be a requirement to attain green building points.

"By using the recycled material in our products, [we] have kept the landfills from receiving more than 30,000 cubic yards of concrete waste in a year's time."

In addition to verifying blocks' recycled content, SAVE also determines how the product qualifies for points under the National Association of Home Builders and ICC's "National Green Building Standard," plus the U.S. Green Building Council's "LEED for New Construction" and "LEED for Homes" guidelines. RCP's VAR-1003 is the first ICC-ES report verifying recycled content and offering tables delineating product qualification under a variety of national or state green rating systems, codes and standards.

RCP Block's ICC-ES undertaking dovetails with Concrete Masonry Association of California and Nevada (CMACN) research and promotion centered on grout containing up to 50 percent fly ash by weight of cement. "Product consistency limits fly ash use in architectural concrete block mixes," explains Mike Finch. "In an overall concrete masonry wall assembly, grout is the logical point for fly ash usage." CMACN findings have helped make high fly ash grout a commercial reality in California, he adds.

The combination of specified recycled content CMU and grout with fly ash positions RCP Block very competitively for a host of military work at Camp Pendleton, Naval Amphibious Base and other San Diego area military installations. The projects are part of a current \$5 billion Pentagon program heavy on housing units and base support facilities delivered through design/build teams and specified to attain LEED Silver certification. — Don Marsh

PHOTOS: Pam Martin, RCP



At peak, RCP Block has used the equivalent of 300 yd./day of recycled aggregate. The company utilizes an impact crusher mill at its Otay Mesa, Calif., plant (shown here) near the Mexico border, and a jaw roller crusher at a Santee, Calif., operation. Based in Lemon Grove, Calif. (headquarters office, above), RCP is no stranger to aggregate production, as it operates a sand pit in Santee to supply some of its fine aggregate requirements for both plants.