

High Concrete Intros Three Products

DENVER, PA.

High Concrete has introduced three new products to the market: thermally efficient insulated wall panels, lightweight precast concrete architectural facade systems, and hollow-core flooring and roofing members.

The precast concrete sandwich wall panels feature carbon-fiber shear-truss reinforcement to create composite structural performance in load-bearing and non-load-bearing applications. Panels can be finished with thin brick, tile, and other decorative treatments, or they can be sandblasted for a clean look.

The architectural facade system weighs up to 66% less than conventional precast concrete systems due to the use of carbon-fiber reinforcement. CarbonCast lightweight cladding reduces superstructure and foundation requirements, permitting lighter, larger members that reduce shipping and erection costs, embedded energy, and carbon footprint.

Dry-cast hollow-core averages a 6000 psi compressive strength and can be manufactured in a 4 ft width and 8 in. or 12 in. thicknesses. Prestressed with 3/8 in. special strand, the slabs can span up to 50 ft and provide acoustical insulation and easy routing of wiring.



— Dean Gwin



— Earl Shimp

Gate Construction Materials Group Reorganizes

MONROEVILLE, ALA.

Gate Construction Materials Group, a subsidiary of Gate Petroleum Co., has reorganized its executive team. Dean Gwin has been named president and chief operating officer and will have responsibility for all phases of the construction group, consisting of six architectural precast concrete plants and two structural precast concrete plants.

He replaces COO Joe Luke, who will serve as a board member and chairman of Gate Construction Materials Group.

Earl Shimp, former president of operations of Gate Concrete Products Co. in Jacksonville, Ala., has assumed the position of senior vice president of operations for Gate Construction Materials Group. He will be responsible for plant and field operations.

Hagen Lambert has been named senior vice president at Gate Concrete Products Co. in Jacksonville. He will be responsible for all operations at the plant, including a major expansion under way and the implementation of carbon reinforcement in the company's double-tees.

Tindall Names New Corrections Reps

SPARTANBURG, S.C.

Tindall Corp. has appointed Corey R. Cummings and Gregg Riphagen as technical sales representatives for its Corrections division.

Cummings's territory covers northern California, Oregon, Washington, Montana, and Idaho. Cummings's more than 25 years of correctional experience includes 18 years in key leadership positions associated with correctional facility and public safety communication system planning, design, construction, activation, and maintenance.

Riphagen will be responsible for the territory covering southern California, Arizona, New Mexico, Colorado, Utah, and Nevada. He previously worked for 11 years with Acorn Engineering as national sales manager.

CWC wins racetrack, casino parking structure bid

WASHINGTON, PA.

Carl Walker Construction (CWC) was recently awarded a \$13.6 million contract to build a five-story, 1000-car parking structure at the Meadows Racetrack and Casino in Washington, Pa.

The new 327,000 ft² structure is a design-build assignment for CWC. It will incorporate a precast, prestressed concrete frame and cast-in-place concrete deck surfaces. The new structure will join the casino at a shared column line and will feature a firewall separating the two structures.

The structure is scheduled for completion in May 2009.



PCI, PCA Release Housing Video

CHICAGO, ILL.

A new DVD documenting the benefits of precast concrete construction in the residential building market has been released by **PCI** and the **Portland Cement Association (PCA)**.

"Precast Housing" begins with coverage of an air-cannon test conducted last year at the site of the first "Fortified . . . for safer living" home built in Illinois. Lengths of 2 x 4 lumber were fired at 100 mph at wall samples, including typical brick- and siding-covered, wood-framed walls, as well as a reinforced brick wall and a precast concrete wall panel. In all but the precast concrete wall, the 2 x 4 caused severe damage. The brick-embossed precast concrete wall not only withstood the 2 x 4, but the slight mark left after the stud bounced off could be covered with touch-up paint.

The "Fortified . . . for safer living" home program was developed by the Institute for Business & Home Safety, a nonprofit association of insurers and reinsurers. The home, built in Aurora, Ill., featured insulated concrete wall panels produced by **Dukane Precast** in Naperville, Ill. Similar homes have since been built by the company in Bolingbrook, Ill. The program's goal is to provide new homes that are resistant to natural disasters.

"Whether it's severe weather, earthquake, fire, or mold," notes PCI President Jim Toscas on the video, "precast building systems protect the people inside the structure."

The DVD covers several major advantages of precast concrete construction, including:

- **Life safety:** In addition to precast concrete walls and floor panels, homes can feature such elements as hurricane straps, better-built windows, and hail-resistant roofing.
- **Energy efficiency:** Precast concrete walls combine the benefits of concrete's high thermal mass with insulation built within the sandwich panels. With fewer joints, the large wall panels reduce air infiltration, and since concrete walls are inert, they don't off-gas and release toxic fumes, creating a high-quality indoor air environment.

PCA's Jim Niehoff admits that a concrete home might have a slightly higher initial in-ground cost than a wood-framed home. But on the basis of operating costs, concrete homes are more cost effective due to increased energy efficiency, lower insurance premiums, greater durability, and reduced maintenance.

- **Sustainable design:** The sustainability benefits of precast concrete sandwich wall panels are outlined in the DVD by Jim Lewis of **Gate Precast Co.** These benefits include recycled-material content, reduced site waste, energy efficiency, long-term durability, and use of local materials. Precast concrete wall panels can improve wall performance under American Society of Heating, Refrigerating, and Air Conditioning Engineers standards by as much as 25% to 30%, reduce the amount of tonnage required to heat and cool a building, and reduce temperature spikes within a structure.
- **Aesthetics:** Also showcased are the aesthetic benefits of precast concrete. Wall panels can be made to resemble brick, natural stone, stucco, or terrazzo, or they can provide creative finishes in many shapes and sizes, offering design flexibility.

Other design advantages are detailed, including quick-construction capabilities and the components' high-quality production methods in a factory setting. A typical multifamily project that would take 18 months to build with conventional materials might be completed with precast concrete in 14 months, the DVD notes.

The DVD also includes a section that follows the production and erection of typical precast concrete panels from CAD drawings and concrete placement within the factory through transportation to the jobsite and erection by crane.

Officials discussing the use of precast concrete in single- and multifamily housing include Ramy Said, R4 Development; Jeff Harris, New Vision Development; Ed Smith, City of Chicago; Dan Buonamici, Building Commissioner for Bolingbrook, Ill.; Degan Hambacher, Architectural & Structural Concrete Consultants; and PCA's Donn Thompson.

For additional information on the DVD, contact PCI's Chuck Merydith at (312) 360-3206 or cmerydith@pci.org.



New PCI Certification Webpages Launched

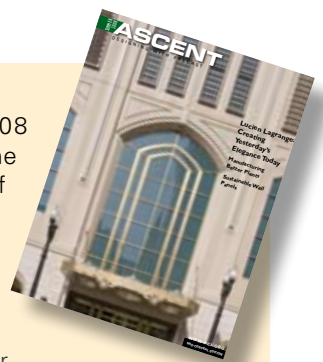
CHICAGO, ILL.

PCI has launched a website for its certification program. The website is designed as a tool to explain the PCI Certification Program's comprehensive oversight of fabrication, quality-control personnel, and construction techniques.

To view the new site, visit www.pci.org/about/certification. For more information on this program, contact Chuck Merydith, PCI's marketing and communications director, at (312) 360-3206 or cmerydith@pci.org, or Dean Frank, PCI's quality programs director, at (312) 583-6770 or dfrank@pci.org.

Correction

In the Summer 2008 issue, the authors' byline was inadvertently left off of a feature in the News section, "PCI Tests Parking Structure on Outdoor Shake Table." It was written by Carrie Wyrick and George Nasser.



**Central Pre-Mix
Prestress Upgrades**
SPOKANE, WASH.

Central Pre-Mix Prestress Co. has installed new project-management software produced by VPRO Inc. The Concrete Vision program offers web-based management applications designed specifically for the precast concrete industry. Precasters using the program are said to be able to realize at least \$250,000 in savings annually, the company says.



**PCI Convention Set
for Oct. 4-7**
CHICAGO ILL.

The **Precast/Prestressed Concrete Institute** will hold its 54th annual convention and exhibition on October 3-7 at Rosen Shingle Creek Resort in Orlando, Fla.

Architects and building owners are invited to attend special sessions at the convention, which will focus on "Expanding opportunities in a changing world." Programs, which begin October 4, will include an emphasis on sustainable design and designing with architectural precast.

Winners in PCI's 46th annual Design Awards Competition (featured in this issue) will be honored at a special banquet on October 7.

To learn more, visit www.pci.org and click on PCI Events.

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Cement Sustainability Initiative Asks G8 to Aid CO₂ Reductions
PARIS, FRANCE

Members of the **Cement Sustainability Initiative** (CSI) of the World Business Council for Sustainable Development have asked the members of the G8 Council and the United Nations Framework Convention on Climate Change (UNFCCC) to help accelerate the creation of a policy framework that will help speed reductions in the emission of CO₂ by cement plants.

The focus of the request is the use of sectoral approaches, under which key industry players could work together to accelerate CO₂ reductions, the group says. The cement sector is best positioned to adopt a sectoral approach on CO₂ emissions, the group adds, thanks to a CO₂ measuring and reporting protocol developed in 2002 by CSI's members. The protocol is being used by 80% of the world's cement industry.

Benefits from using sectoral approaches include mobilizing emerging economies in CO₂ mitigation, a key factor as 80% of emissions in the cement sector come from developing regions, the group says. Sectoral approaches allow a small number of key industry players or countries to act quickly.

"As an industry, we are leading in the adoption of tools that can be used to target climate change," says Bruno Lafont, chairman and CEO of **Lafarge**. "Member companies of CSI have set voluntary, individual CO₂-reduction targets, which are delivering encouraging results, and we have announced a significant drop in emissions per tonne of cement produced by our members."

CSI's figures indicate that the average net specific emissions per tonne of cement for its 18 members have fallen from more than 760 kg CO₂/tonne in 1990 to 670 kg in 2007. This reduction amounts to CO₂ savings in 2007 of more than 70 million tonnes.

"These results are encouraging and show that reducing CO₂ intensity in cement is possible," Lafont says. "To go further, we are calling on G8 members and the UNFCCC to accelerate the creation of the necessary policy framework for effective sectoral approaches."