

Serving Global Clients Locally

— Craig A. Shutt

DMJM H&N reorganizes as AECOM Design to create more efficient business units to serve clients around the globe by addressing key local issues and desires



—Ray Landy, president, AECOM Design, Architecture; and former president of DMJM H&N

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—Mike Kerwin, design principal

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The reorganization of DMJM H&N into AECOM Design presents a new face to the firm's clients, combining the capabilities of DMJM H&N, Earth Tech, and HSMM into one unified operation. The plan will create more efficient access for all design resources within the multinational firm, while still allowing it to meet its global clients' needs at the local level, executives say.

The integration of these services, which began in October 2008, will create five expertise-based organizational entities from what were DMJM H&N and other AECOM subsidiaries: AECOM Design, AECOM Water, AECOM Transportation, AECOM Energy, and AECOM Environment. The change will offer clients easier access to the firm's capabilities and improved delivery of its services and technologies, according to Ray Landy, president of the architecture practice.

"We look at these projects from a completely different angle than most companies."

"This move aligns our operating companies to take better advantage of our global growth in recent years," he explains. "It was becoming clear from a global perspective that we had some of the same skills in various business lines that had grown over time. This approach reorganizes those skills so it will be easier to coordinate them." A number of divisions practiced architecture, he says, but they couldn't access the wider expertise in other divisions. "It makes sense for us to align all of our architectural expertise into one business line and bring all of the architects together, first in the United States and then internationally, as a

community. It makes us a more powerful entity and better able to serve our clients' needs.

It especially works to the benefit of multinational companies, he notes. "They like to buy single-point resources and ensure responsibility is derived from a single platform that is global." No matter where the company has projects beginning, AECOM can handle their needs and ensure that its resources around the world can be brought to bear on the challenges. The organization also will allow AECOM Design to tap into the expertise of the other four divisions as needed for larger infrastructure or planning programs, he adds.

Clients of All Sizes Benefit

That doesn't mean the designers don't work with smaller, domestic companies. For instance, construction is being completed on the new Administration Building for the Los Angeles Police Department (LAPD), while the William H. Hannon Library at Loyola Marymount University in Los Angeles, Calif., will open in 2009. Both projects feature striking, geometrical facades that make full use of precast concrete panels and components.

"We understand local politics and neighborhood issues," explains Michael Mann, principal and regional leader. "We're fairly balanced in terms of work for public and private clients, but currently, more of our work is in the public arena due to the economic times." Overall, about 60% of the firm's revenues are derived from public clients, he estimates.

Those clients are spread widely through various types of functions, bringing commissions for a host of building types, including workplace and office designs; public-safety and justice facilities; higher-education needs including classrooms and libraries; and hospitality and leisure, which includes resorts and hotels. "We are also doing some retail work as part of major

PROJECT SPOTLIGHT

Los Angeles Police Department Administration Building

Location: Los Angeles, Calif.

Project type: Office/public-safety building

Area: 500,000 ft²

Designer: AECOM Design, Los Angeles

Owner: City of Los Angeles Bureau of Engineering, Los Angeles

Contractor: Tutor-Saliba Corp., Sylmar, Calif.

PCI-certified precaster: Coreslab Structures (L.A.) Inc., Perris, Calif.

Description: The new Los Angeles Police Department (LAPD) Administration Building, finished in late 2008 with a silver LEED rating, features below-grade parking for 355 cars and includes areas dedicated to police administration and investigative operations. It also includes several large assembly areas, including hearing rooms, a conference center, and a state-of-the-art computer command center; a public cafe; and a public auditorium.

The design features architectural precast concrete panels on the highly geometric facade. It also includes a west facade studied with tall, thin windows of varying widths that appear random but in fact were created with only six concrete forms. The bottom sills on the window openings are extremely thin, requiring close control of reinforcement placement. Tolerances were quite tight, so window installation progressed smoothly.

The building's apex on the north side, which points to city hall, features a 130-degree angle achieved with a vertical truss that was completely clad in precast concrete. The solid panel is finished on both sides with a pattern of varying textures. The wall panels were sandblasted, with a texture that was continued into the texture used for the glazing system, creating a uniform look.

The final design evolved through a process of evaluating numerous alternatives leading to a preferred concept and subsequent refinements made by the design team and the Bureau of Engineering with the LAPD, accompanied by reviews, comments, and collaboration with other stakeholders. These groups included the Department of Public Works; City Council members; the Office of the Mayor; the Chief Administrative Office; Chief Legislative Analysts; the Cultural Affairs Commission; the Project Restore First Street Design Team; and community members, who participated in more than 30 meetings and workshops.

(For technical information on this project or other Project Spotlights, contact the precaster; see the Plant Certification Supplement at the end of this issue.)



The LAPD Administration Building in Los Angeles features textured architectural precast concrete wall panels, including a west facade with tall, seemingly randomly placed windows that were in fact created with only six different wall panel forms.





A basket-weave design was created for Sunny Isles Beach Government Center in Florida using a ribbed pattern on architectural precast concrete panels.

PROJECT SPOTLIGHT

Sunny Isles Beach Government Center

Location: Sunny Isles Beach, Fla.

Project type: City hall and justice center

Area: 58,000 ft²

Designer: AECOM Design (Spillis Candela DMJM), Coral Gables, Fla.

Owner: City of Sunny Isles Beach

Contractor: Weitz Construction Co., West Palm Beach, Fla.

PCI-certified precaster: Gate Precast Co., Sarasota, Fla.

Description: The government center is located on a 2.5-acre site on an oceanfront boulevard at the center of an emerging business and residential area. The four-story building includes administration, police, library, and city council functions.

The design floats a three-floor curving bar of administration and police functions over the ground-floor public spaces. A three-level parking structure slides underneath the western leg and integrates public-related functions at the base. A one-story restaurant attached to the City Hall side features a roofscape partially screened with a large-scale tensile canopy.

Architectural precast concrete panels in a white-ribbed texture were specified for the facade because that material could provide the ribbed design to articulate the strong shade and shadow patterns that move across the facade. The ribs go both vertically and horizontally and intersect, creating a basketweave design that adds visual interest and color. The panels also were chosen because of the durability they provided against the oceanfront environment.

Glazings for the three upper floors consist of square “punched” windows with clear anodized mullions. The Council Chamber is veneered with a blue, integral glass mosaic tile, while the elevator core features black granite.



‘Precast concrete is a chameleon material.’

mixed-use projects,” he notes.

One area in which AECOM stands out is the work it has done with infrastructure facilities, adds Mike Kerwin, design principal in Miami, Fla. That work spotlights an unusual array of projects comprising transportation centers, rental-car facilities, highway architecture, and toll plazas. “We look at these projects from a completely different angle than most companies, seeing them as really wonderful opportunities for public architecture that people generally don’t expect to be beautiful or intense.”

One recent project that spotlights that

approach is the Consolidated Rental Car Facility and Parking Garage at the Fort Lauderdale-Hollywood (Fla.) International Airport. The nine-story structure consolidates 12 rental-car companies and their vehicles into one facility, which accommodates 9000 cars and a full range of concessions and visitor parking. A pedestrian bridge connects the structure to the terminal. The design features a total-precast concrete structure that blends glass and dimensional concrete on its facade to create a distinctive appearance.

“What differentiates us from other

firms of our size is that we have both the capacity to design and manage projects at the highest level in a great variety of contexts,” says Kerwin. “Some firms have strength in managing or designing complex projects, but few can do both equally well.”

A ‘Chameleon Material’

As noted by the previous examples, precast concrete often plays a role with this wide variety of projects, regardless of the building type or client. “Precast concrete is a chameleon material,” Kerwin says. “Our

The new RAND Corp. headquarters achieved a gold LEED rating after setting out to attain a silver rating. The building features architectural precast concrete wall panels on its facade, which helped in attaining the rating.

PROJECT SPOTLIGHT

The RAND Corp. Headquarters

Location: Santa Monica, Calif.

Project type: Corporate office building

Area: 310,000 ft²

Designer: AECOM Design, Los Angeles, Calif.

Owner: The RAND Corp.

Contractor: Turner Construction Co., Los Angeles

PCI-certified precaster: Walters & Wolf Precast, Fremont, Calif.

Description: RAND officials wanted to consolidate and update its operations in a new headquarters that would be used on a 24-hour, seven-day basis for the next 50 years. Aesthetic impact was important, but so was functionality and flexibility, as well as support for the firm's culture and work style.

The building, which achieved a gold LEED rating, was clad with architectural precast concrete wall panels that were attached in a vertical fashion. Horizontal ledges provide shade from the sun and protection from glare and are supplemented with coated glass to reduce heat gain.

The building envelope and systems were designed to maximize energy performance. Computer simulations were run to assess energy performance, resulting in a 50% improvement in the proposed building performance rating compared with the baseline.



'We spend a lot of time with the fabricators, producing mock-ups and playing with formliners, to ensure we find just the right approach.'

use of it cuts across all building types, playing a role in the skinning of many types of buildings. It has the capacity to look like every type of material—metal, masonry, brick, stone—and we can put real brick or stone onto it. It really provides untold flexibility and economy."

The company also has been using pre-

cast concrete's structural capabilities, he adds. "We've used it in Miami as a structural material for more than three decades, as a way of attacking design challenges, especially for parking structures." Precast concrete structures have been popular, he notes, because their durable, sturdy composition provides strong protection against

hurricanes, and they minimize maintenance costs even in coastal areas inundated with salt and water spray. "There are so many ways that we can use the material that it always comes up in discussing facade options," he says.

"It's a pretty easy sell to owners on the West Coast," agrees Mann. "We typi-

PROJECT SPOTLIGHT

207 Goode

Location: Glendale, Calif.

Project type: Commercial office building

Area: 188,000 ft²

Designer: AECOM Design, Los Angeles, Calif.

Owner: Maguire Partners, Glendale, Calif.

Contractor: Hathaway Dinwiddie, Los Angeles

PCI-certified precaster: Clark Pacific, Fontana, Calif.

Description: This eight-story speculative office building is located between two existing office buildings, so special attention was paid to siting and exterior design. The building was positioned along the southern property edge to allow as much sunlight as possible to filter into the space.

This daylight-enhancing approach was encouraged by a pure glass curtain wall framed by architectural spandrels and wall panels made of glass-fiber-reinforced concrete in a white color with no reveals. The spandrel panels were typically about 30 ft by 7 ft, while the wall panels were 12 ft by 6 ft 6 in. The casting and erection of the materials went smoothly, with easy access to the site available.



An office building in Glendale, Calif., was fit between two existing buildings, with glass-fiber-reinforced concrete wall panels and spandrels helping to blend the structures. Along the south wall, a large expanse of glass framed by spandrels helped bring daylight deep into offices.



PROJECT SPOTLIGHT

William H. Hannon Library

Location: Los Angeles, Calif.

Project Type: University library

Area: 120,000 ft²

Designer: AECOM Design, Los Angeles

Owner: Loyola Marymount University, Los Angeles

Contractor: Snyder Langston, Irvine, Calif.

PCI-certified Precaster: Clark Pacific, Fontana, Calif.

Description: Set to be completed later this year, the library is located on a dramatic bluff overlooking the Pacific Ocean. Combining the materials and services found in traditional libraries with the technological advancements of today's digital libraries, the facility offers 500,000 volumes in open stacks and up to 1.4 million volumes in an automatic storage and retrieval system sized for future expansion.

The building features a combination of architectural precast concrete wall panels and glass-fiber-reinforced concrete spandrels in two colors: beige and white. The most striking feature is the precast concrete fins, which frame tall, thin windows that give the building the image of a car air filter sitting on a base.

The circular structure offered a variety of challenges for the precaster, including the creation of many radiused panels to achieve the required curves and a difficult site with limited access due to its bluff-side location. A large crane was used to reach to the far side of the building up to 225 ft away to erect the panels.

'We can gain so much control of the finishes and textures, so we can achieve the exact color and consistency that we want.'

The new William H. Hannon Library at Loyola Marymount University in Los Angeles, to be completed later this year, features a combination of architectural precast concrete wall panels and glass-fiber-reinforced concrete spandrels to create a distinctive, finned facade.



cally approach design from a compositional aspect, organizing the appearance around solids and glass areas. How we mix those elements differs in each case, and precast concrete works very well in achieving the goals we set, no matter what they are. It's a very natural product for us to use."

The LAPD building offers a good example of those compositional contrasts, featuring a strong geometric layout and a west wall that appears to be made of tall, randomly spaced windows set into precast concrete panels. But, in fact, the apparently random pattern was created with only six concrete forms. Another example of precast concrete and glass combining in interesting ways can be seen at 207 Goode in Glendale, Calif. The commercial office building features a facade along the main street that consists of a solid curtain wall framed by a precast concrete perimeter. Along other facades, the precast concrete acts as spandrel panels between lengths of glazing.

"One of the real advantages of precast concrete is that we can gain so much control of the finishes and textures, so we can achieve the exact color and consistency that we want," adds Kerwin. An example of strong textures can be seen in the company's work for the Government Center in Sunny Isles Beach, Fla. The project features architectural precast concrete panels in three textures: smooth, vertical reveals, and horizontal reveals. The two types of reveals intersect, creating a basket-weave appearance. Tall bay windows jut from a smooth facade on another side, with much wider-spaced reveals used.

"We spend a lot of time with the fabricators, producing mock-ups and playing with formliners, to ensure we find just the right approach," Mann says. "Most of the fabricators are happy to work with us in that way, because they enjoy the creativity. And we find it's the best way to get what we're looking for with the highest value for the client."

Sustainability Interest Grows

Precast concrete also aids in meeting owners' sustainability goals—and almost every owner has such goals today. "Sustainability is at the forefront of every project," says Landy. And that's a global phenomenon, he reports. "Even in places where it hasn't been important, such as the Middle East, it's become a key driver."

Precasters aid that process in the United States in a variety of ways. Typically, the plant is close to the site, reducing transportation emissions and costs. Precast concrete also aids with energy efficiency, moisture control, and other factors. "Precast concrete can fit into many climates and perform in a variety of ways," Kerwin notes.

But projects that select specific products simply to boost their LEED rating ultimately won't be as successful as they could, stresses Mann. "If you're just chasing LEED points, you're coming at design from the wrong direction," he says. "We like to think there are rational, pragmatic reasons to choose options that go beyond

PROJECT SPOTLIGHT

Blue Cross/Blue Shield of Florida

Location: Jacksonville, Fla.

Project type: Office complex

Area: 775,000 ft²

Designer: AECOM Design (Spillis Candela DMJM), Jacksonville, Fla.

Owner: Blue Cross/Blue Shield

PCI-certified precaster: Gate Concrete Products, Jacksonville, Fla.; and Gate Precast Co., Ashland City, Tenn., and Monroeville, Ala.

Description: A 775,000 ft² expansion was added to the original project and consists of three 200,000 ft² office buildings and a 175,000 ft² multipurpose building housing a conference center and employee cafeteria. The expansion complements an existing five-building, 1 million ft² complex also designed by AECOM Design. Another recent addition is the 34,000 ft² Event Center, which includes a 10,000 ft² ballroom that can seat 1300 people and can be subdivided into eight venues. Five meeting rooms can accommodate multiple activities simultaneously.

The facilities feature architectural precast concrete wall panels that help unify the campus while reducing the scale of the structures. As part of the third phase of the project, the architectural firm also created a four-level, 1450-car parking structure that features an all-precast concrete structure including beams, columns, and double-tees. The parking structure was designed to complement and harmoniously blend with the architecture of the existing and planned office buildings on the site.



sustainability.”

Designing for sustainability goes beyond plugging in specific products, he explains. “We often can achieve a LEED rating without spending extra money if we approach the design properly. If you are spending a lot of money to add another point, you may not ultimately achieve what you want with the building.”

Adds Kerwin, “There really is a sea change occurring in the entire construction industry about sustainable design, and we are retooling to meet those challenges right now. The standard baseline is shifting on us, and moving higher, and it’s going to be even higher in five years as we come to adapt technology to the very real environmental challenges that face us.”

Technology is driving products to provide more sustainable options and make that aspect inherent as part of the product’s total function. Those rapid changes are being monitored by AECOM’s designers. “We need to explore new technologies—but we also can’t try to embrace them until they’re proven,” Kerwin warns. “That can be a slippery slope. New build-

ings are going to be around for longer than past designs were planned for, and we have to be certain we aren’t using them as laboratories.”

Here, too, the trend leads the designers to using precast concrete components to

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meet their needs. “The quality and technology behind precast concrete has improved significantly in recent years,” says Mann. “We can accomplish many more shapes and other goals.”

Total-precast concrete structures and high-performance concrete also are making rapid advances, Kerwin adds. “The entire concept of using precast concrete and

plank systems with higher strengths, using steel fibers, creates a significantly different product. Likewise, high-density concrete that can act as its own rain screen will change design approaches.” Some of these ideas have progressed further in Europe to date, he notes, but the United States is quickly catching up.

High-performance concrete will allow precast components to “invade the tall-building market in ways it hasn’t done to date, due to the advantages it will offer in fireproofing alone,” Kerwin predicts. “Taller buildings will turn to precast concrete more often because of the advances that are being made.”

The ability of materials to adapt to sustainable concepts as they evolve will be a driving force in their growth, he adds. “The challenge for precasters is to adapt their materials as necessary to keep up with sustainable designs and new technology.”

For instance, Mann currently is involved with several projects in which new techniques are being used to evaluate solar-heat models for buildings. “We’re looking at how heat builds up on the building’s skin so we can create architectural diagrams and designs that can help us select the best building material to respond to that heat gain and make the best use of it.”

Interfaces Are Critical

That continued evolution will be critical as other building materials evolve, and their uses change. “How precast concrete can interact with glass and metal skins is changing, and how it adapts to new technology will be important,” says Landy. He points to new techniques incorporating photovoltaic cells and solar panels into projects and facades. “These ideas have to be blended with the structure from an aesthetic standpoint, as well as a functional one,” he says. “Currently, retrofitting a building with solar panels can make it look ugly. But creating ways to hide them while achieving full efficiency can create a spectacular design.”

Creating spectacular designs will remain at the forefront of AECOM Design’s direction as it adapts to its new organization and distribution of services. “There will be quite a bit of realignment for us in 2009 and into 2010,” Landy says. “This is only the first step being taken right now. But it will help us better organize our talent, knowledge, and potential for innovation so that we can create a critical mass that will influence markets and designs in ways that small operating companies couldn’t do.” ■

For more information on these or other projects, visit www.pci.org/ascent.



The expanding Blue Cross/Blue Shield headquarters in Jacksonville, Fla., features architectural precast concrete wall panels that help unify the buildings.