

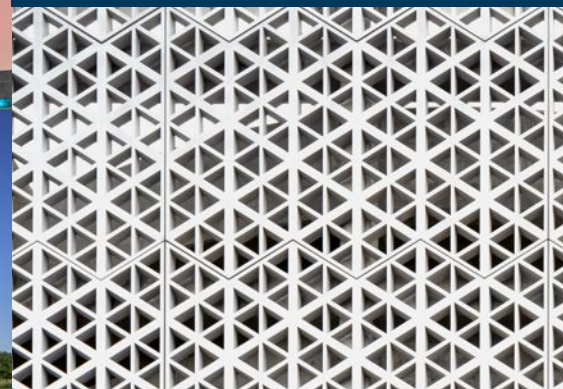
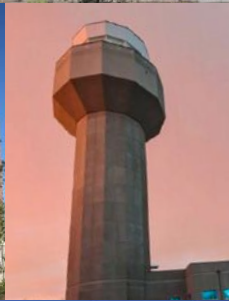
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DESIGNING WITH PRECAST CONCRETE

DIGITAL EDITION

SPRING 2025



2025 PCI
DESIGN
AWARDS



Convention Meeting Facilities

GAS SOUTH DISTRICT CONVENTION CENTER ADDITION & RENOVATION

DULUTH, GEORGIA

PROJECT TEAM

Owner: Gas South District, Duluth, Ga.

PCI-Certified Precast Concrete Producer:
GATE Precast, Monroeville, Ala.

Precast Concrete Specialty Engineer:
GATE Precast, Lexington, Ky.

Architect: SMALLWOOD, Atlanta, Ga.

Engineer of Record: Walter P. Moore, Atlanta, Ga.

General Contractor: Holder Construction, Atlanta, Ga.

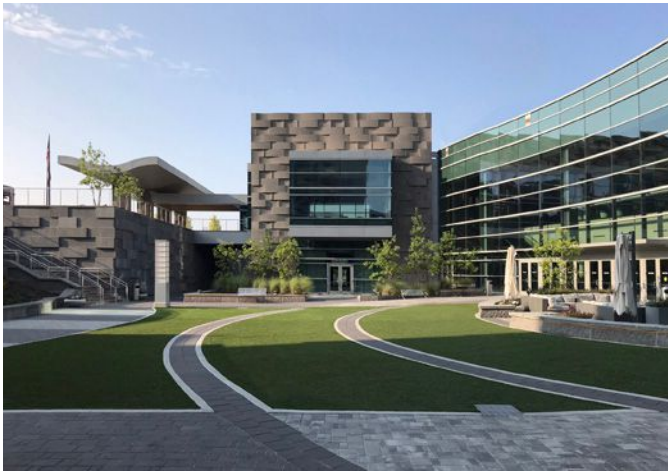
PCI-Certified Erector:
Precision Stone Setting Company, Hiram, Ga.

Project Size: 285,000 ft²

Located on a sprawling, 118-acre campus, the Gas South District Convention Center in Duluth, Georgia, offers a versatile space that can be used for a range of events, including conventions, trade shows, sporting events, and more. The area, which is located roughly 30 miles northeast of downtown Atlanta, is a civic and cultural hotspot in the region. After three decades of hosting events, the convention center's facilities were beginning to show their age and could not meet the exhibition space demands of larger conventions. A critical piece of this project, which included the renovation and expansion of the exhibit hall, ballroom, and theater, was the entrance pavilion, whose design was intended to generate a striking response from visitors entering the convention center. To meet the complex design demands of this project, architect SMALLWOOD partnered with GATE Precast on an innovative precast concrete solution.

SUBSTANTIAL, YET DELIGHTFUL

In improving the Gas South District Convention Center, Gwinnett County Commissioners sought to differentiate their venue from its competitors. To do so, architects with SMALLWOOD conceived of two enormous courtyards and a lakeside terrace as the heart and soul of the venue. The focal point of this space is the two-story entrance pavilion, which features the main lobby where visitors are received under a porte cochere. The design for this entry point features a curtain wall of transparent waves of glass contrasting with more than 8000 ft² of architectural precast concrete panels that establish a strong, heavy, and solid presence.



Photos: SMALLWOOD Images

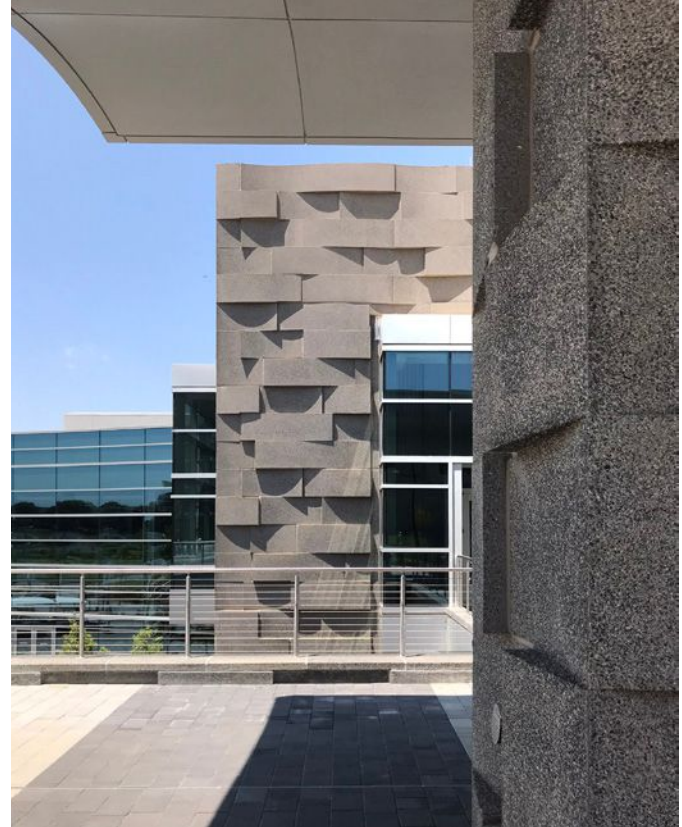
“We dreamed that the precast concrete might be articulated in such a way that it would not only be substantial, but also delightful,” said Andy Amor, associate at SMALLWOOD. “The idea plays off the wonderful nature of concrete itself—a material that is, before it hardens, wonderfully plastic, able to take whatever shape jumps out of the designer’s imagination.”

Detailing the sawtooth joints present in the architectural precast concrete panels and determining how the pieces would fit together posed challenges for GATE Precast. The sawtooth pattern was created by attaching concave and convex extruded-polystyrene formliner blocks to the production mold rails. Depending on the size of each panel, the blockouts could be moved around, and they could also be deployed multiple times. Once the pieces were manufactured, another crucial consideration was the corner detailing, which created a complex puzzle for the project team. Ensuring a seamless match of formliner patterns as the main panel approached a corner was paramount. Through close collaboration, the project team worked to position the undulating formliners carefully in the mold at transition points on panel corners to ensure the pieces would mesh perfectly. The result is a visually cohesive, structurally sound finished product.

According to Amor, no other building material could provide the flexibility and beauty needed at Gas South District Convention Center. “Alternative materials were considered, but architectural precast concrete won the day for its many advantages—durability, integral color, impact resistance, thermal mass, cost-effectiveness, ease of erection, and structural robustness,” he explained.

In addition to the alternating convex and concave patterns, the charcoal gray color and heavy acid-wash finish applied to the precast concrete panels help them stand out from the surrounding architecture. The finish creates a dramatic contrast effect that is particularly noticeable at certain times of day. As the natural light changes, the interplay between light and shadow accentuates the intricate details of the façade.

Thanks to the talent and expertise of the project team, who took full advantage of the versatility of precast concrete, the Gas South District Convention Center renovation and expansion project delivers a one-of-a-kind experience for visitors.



KEY PROJECT ATTRIBUTES

- The Gas South District Convention Center’s expansion and renovation project adds significant space and beauty across the facility’s 118-acre campus.
- Nestled in the center of the work is a new, two-story entrance pavilion featuring more than 8000 ft² of architectural precast concrete panels.
- The new pavilion creates a welcoming space for all visitors.

PROJECT AND PRECAST CONCRETE SCOPE

- The project included 46 architectural precast concrete panels.
- The charcoal gray color and heavy acid-washed finish of the convex and concave panels create dramatic visual effect that changes as the daylight changes.
- Precast concrete brought numerous advantages to the project, including impact resistance, thermal mass, ease of erection, and more.