

# MASONRY CONSTRUCTION

THE WORLD OF MASONRY

A Hanley-Wood Publication

December 2000

**JUSTICE CALLS FOR REINFORCED CONCRETE MASONRY**

**EDUCATIONAL OPPORTUNITIES ABOUND AT WORLD OF MASONRY**

**FLASHED LOADBEARING WALLS SOLVE PROJECT'S DESIGN CHALLENGES**

# HUES OF JUSTICE

The Freddie Polhill Law & Justice Complex in Orange, N.J., is a project that began in disaster and ended in triumph. During the early stages of construction, the original architectural firm was kicked off the job due to code violations in the design, and everything erected so far had to be demolished. The Goldstein Partnership, an architectural firm based in West Orange, N.J., was selected to take over the project. This firm designed a 48,000-square-foot reinforced concrete masonry and steel-frame building, with masonry materials representing nearly 15% of the facility's \$8.25 million construction cost, or roughly \$1.2 million.

Although architect Eli Goldstein normally would specify brick for the exterior of a municipal justice facility, in this case ground-face concrete masonry had already been ordered for the veneer, as well as for interior applications. Pleased with the fact that ground-face block more closely resembles stone, Goldstein used three different "earthen" colors of decorative CMU on the exterior. "The block is laid in horizontal bands, coordinated with the geometry of the curtain wall at the entrance," he explains. "The appearance of the resulting outside corners is reminiscent of quoining." The stepping pattern on the exterior suggests to visitors that they need to go upstairs once they're inside the facility, where they will see alternating panels of light and dark ground-face CMU along the public staircases.

The complex, which contains the City of Orange's Municipal Police Department and Municipal Court, is considered an essential public facility and is designed to meet more stringent seismic requirements than other building types so that it will remain functional after an earthquake, Goldstein notes. Except for the glass curtain wall at the front entrance, the exterior walls are masonry cavity walls. Seismic anchors are used in the veneer wythe, and the CMU backup is reinforced and grouted every 16 inches on center. In secure areas, such as the 16-cell detention center

## PROJECT PARTICIPANTS

- Architect:** The Goldstein Partnership, West Orange, N.J.  
**Structural engineer:** Severud Associates, New York, N.Y.  
**Masonry contractor:** P&C Construction, Berkeley Heights, N.J.  
**General contractor (building shell):** Damon G. Douglas Co., Cranford, N.J.  
**General contractor (interiors and sitework):** Tri-Con Construction Co.



AC PHOTO



AC PHOTO



The Goldstein Partnership

where inmates are held, every CMU core is reinforced and grouted. The secure interior partition walls are mainly epoxy-painted standard gray block. The Goldstein Partnership also specified glass block for the exterior walls of offices and work areas—to keep unwanted visitors out and let daylight in—with bullet-proof glass block used in secure areas. The firm chose cast-stone elements complementing the other masonry materials for several applications: sills and jambs between the ground-face block and the curtain wall, sills at the glass block panels, and copings at the interior walls of the public stairs. "With its design flexibility, scale, strength, durability, and economy—and its resistance to vandalism, corrosion, and fire—masonry was the perfect choice for a public building intended to command the public's respect and built to last into the next century," Goldstein emphasizes.