Case Study

Innovative Services Give Dayton Contractor A Big Edge

Longtime active AWCI member firm James C. Oren and Associates believes that offering more than traditional surface finishes has paid off in additional business.

Located in Dayton, Ohio, the lath and plaster contracting company prides itself on its traditional plastering skills and its ability to find innovative uses for—and reliable suppliers of—materials such as metal lath and light gage steel framing. The firm also has a reputation for devising creative solutions for tough design and construction problems facing architects and contractors. As a result, Oren has become one of the largest lath and plaster contractors in the Midwest.

A good example of how Oren applies its special capabilities is the new Gem Savings and Home Savings Headquarters Building in Dayton. President Jim Oren explained how his firm worked closely with the architect and general contractor in helping them solve some unusual design and construction problems.

The building’s main entrance is through an impressive glass-enclosed atrium which rises the full seven stories and separates the two main sections of the 266,000 square foot building. Elevator landings face the atrium, along with some inside offices.

Lightweight Panels

The atrium was one feature of the building that resulted in Oren and Associates being called in. Jim Oren explains: “The architect specified limestone panels for the exterior of the building, and they wanted to have the same material carried inside the atrium. Use of limestone panels for the atrium was questioned because of their tremendous weight and cost. Each 10 ft. x 6 ft. x 4 in. panel would weigh 2,800 lbs. So, in an effort to economize project cost, a material substitute was considered.

“The general contractor had work-
ed with us before, and knew about our quality workmanship,” Jim Oren said. “They also knew we had experience manufacturing custom plaster panels, so they suggested to the architect that we might be able to make special panels for the Gem Savings atrium. We studied the problem, made a recommendation, and made up several sample panels.

“The plaster panels were exactly the same configuration as the limestone, but reduced to a weight of 750 lbs. each. They matched perfectly the color and texture of the stone as well,” Oren added.

**Steel Channels**

Working on scaffolding to the seven story height, Oren crews used a standard ¾” and 1½” Channel Furring System to provide the basic stone shapes. Then they tied 3.4 flat rib galvanized lath to the plaster channels.

Channels and laths were furnished by AWCI Manufacturer Member Bostwick Steel Lath Company of Niles, Ohio, which also manufactures light gage steel framing used at Gem Savings. “Reliable suppliers like Bostwick are pivotal in a project of this scope,” Oren said.

**Material Innovations**

Steel framing was only one of Oren’s innovative uses of materials. To frame the panel borders, Oren used ¾” x ¾” plastic expansion joints. Because minimal expansion and contraction is expected in the interior panels, this joint material serves mainly as trim and to create the appearance of limestone panel joints.

For framing panel edges along outside corners in the atrium, Oren had strips of aluminum specially formed at a 45 degree angle. These angles were screwed to the furring, and after plastering they made a straight edge along the 90 degree corners, and also provided the sharp stone-like edge that Oren wanted for the panels.

After the furring and lath was in place, Oren workers applied a full ¾” thickness of plaster. The scratch coat was 100 lbs. of high strength wood fiber plaster mixed with 100 lbs. of sand; the brown coat was 100 lbs. of neat gypsum plaster mixed with 250 lbs. of sand; and the finished coat was standard Keenes cement lime sand finished plaster colored to match the gray limestone.

Because Oren had carefully formulated all the plaster in their plant, after it was applied no additional finishing or painting was needed to match the color and texture of the exterior limestone.
Dropped Ceilings

Besides furring and lath for the atrium, Bostwick also furnished plaster channels that Oren used to frame the dropped ceilings in the elevator landing areas. Here, the main horizontal runners were 1½" cold-rolled channels. Vertical and cross furring were ¾" cold-rolled channels wire tied to the 1½" channels. Then, metal lath was wire tied to these channels and the surfaces were plastered as they were in the atrium.

“With steel,” Jim Oren said, “there aren’t as many limitations on what we can do, so we can come up with some innovative solutions for design and construction problems.”

Enclosure Framing

“The same was true with the elevator enclosures,” Oren said, pointing to the wall framing. “We framed these walls with 6-inch steel studs, and then screwed metal lath to them. The architect specified that the lower sections of these wall frames be inset to accommodate the ends of stone bases that border each elevator landing. Heights of the stone bases varied: 2'6" on the first floor landing, and 1'2" on floors 2 through 7.

“This is where the versatility of steel framing really paid off,” Oren said. “We cut the main 6-inch steel studs to accommodate the stone base, and then welded 2½-inch studs to the 6-inch studs with an overlap of 2 ft. We cut and welded the studs in our plant, and when we installed them at the site, we had the precise inset that was specified.

“Light gage steel allows us to meet a variety of framing requirements, and that’s a big reason why we like to work with it,” Jim Oren said. “We can fasten it together with welds or screws, on-site or in our plant.”

Costs Cut By a Third

Oren said his firm also helped solve a material application problem in the ceiling of the Gem Savings atrium. Large skylight beams support a glass-enclosed roof over the atrium. The architect’s original design specified cov-
Two of the 10-ft. plaster arches at the reconstructed Arcade Square in Dayton. Oren and Associates used a template to run the arches in place. They also cast new pieces of plasterwork from molds they made of deteriorating ornamental plaster trim.

Sculpting In Plaster

Besides interior systems and structural framing, Oren and Associates ering the beams with custom formed steel sheet which would have necessitated field measuring and fabrication to achieve the desired effect. Instead, Oren recommended a less expensive solution.

“Our proposal was to weld steel channels to the beams, cross-fur with \( \frac{3}{8} \)" channels, and then wire tie metal lath to the channels,” Oren explained. “We recommended applying smooth plaster finish and then painting it to match the adjacent structural steel members. The architect agreed. We not only exceeded their aesthetic requirements, but the job was done for about 2/3 the cost of the steel sheet design originally considered.

“We take great pride in our craftsmanship, and our use of only quality plaster and framing materials,” Jim Oren concluded. “We work closely with our established material suppliers, like Bostwick in this project. And, of course we work closely with architects and designers to advise them on the latest materials and techniques so that their visions become realities.”

A section of ceiling in the elevator enclosure area shows where metal lath and \( \frac{3}{4} \times \frac{3}{4} \)" plastic expansion joints were wired to cold-rolled channels, and where plaster was then applied. The plastic expansion joints serve mainly as trim and to create the appearance of limestone panel joints.
GERMINARIO CASE SETTLED:
IJDB AGREES NOT TO CLAIM AUTHORITY OVER NON-STIPULATED CONTRACTORS

In an out-of-court settlement reached January 29, 1981, the Impartial Jurisdictional Disputes Board agreed “not to represent in any communications that it has authority to bind a party to adhere to a job decision, rendered by the IJDB, or to enforce such a job decision upon the party if such party is not subject to the Plan for Settlement of Jurisdictional Disputes in the Construction Industry as it now exists or as it may be amended.” The IJDB also agreed to include in all future notices sent to contractors certain language, agreed upon as part of the settlement, expressly noting that the IJDB is a private organization which has authority only with respect to contractors who have actually agreed to be bound by the Plan.

The case, Germinario Acoustics, Inc. v. Impartial Jurisdictional Disputes Board, was filed by MacKenzie Canter, III, AWCI Washington Counsel in April of last year. AWCI member Germinario Acoustics had contracted with a local of the International Brotherhood of Carpenters and Joiners for work at a job site in northern New Jersey. The Sheet Metal Workers International filed a claim with the IJDB, contending that Germinario Acoustics should assign to sheet metal workers all duct and plenum work at the job site. Although Germinario Acoustics had never consented to IJDB arbitration of the jurisdictional dispute between the carpenters and the sheet metal workers, the IJDB proceeded to issue an award in favor of the sheet metal workers. When the IJDB sent a notice to the contractor and the sub-contractor directing compliance with the award, Germinario Acoustics filed suit to declare the job decision void and unenforceable.

According to Canter, the settlement represents a victory for AWCI’s members and for all non-stipulated contractors. From now on the IJDB will not be able to issue directives to non-stipulated contractors demanding compliance with its job decisions. This fact and the disclaimers which the IJDB has agreed to include in its notices to contractors will, according to Canter, clarify the limits of the IJDB authority and will put an end to any allegations that non-stipulated contractors are bound by IJDB awards. The settlement makes it clear that arbitration awards by the IJDB are only advisory and have no force and effect unless the contractor has agreed in advance to adhere to the award.

Jim Oren referred to reconstruction work his firm recently performed at an old shopping arcade in downtown Dayton. This building, known as Arcade Square, contained many pieces of ornamental plaster trim that were deteriorating as a result of excessive water damage from the leaky skylight.

After studying the situation, Oren made latex molds of the ornamental column caps and other trim items, and cast new pieces of plasterwork in their mold shop. When they installed the new plasterwork at Arcade Square it was a perfect match for the 77-year-old interior. And, because of the new materials and techniques used by
Oren, it can be expected to last for years to come.

Oren performed fireproofing work at Arcade Square, and also rebuilt the 10-ft. plaster arches that line the second floor in the Third Street arcade. These arches were run in place with a template to achieve the complex shape. The column caps, which were cast in Oren’s shop, were then installed at the base of the arches.

Oren and Associates has diverse capabilities in custom plaster work. They can cast special acoustical panels, decorative panels and lighting fixtures in almost any shape desired. By applying modern materials to an old craft, Oren can handle building interiors of the 1980’s as well as the early 1900’s.

James C. Oren checks the fine detail in a plaster cast for a column cap to be installed in the Arcade Square Building. With him in his company’s mold shop is Kenneth W. Oren, chief of staff.

A plastered wall at an elevator landing was framed with steel studs, and had metal lath attached to it. The lower sections of the wall frames were inset to accommodate the stone bases that border the landings.