## Divining the future of concrete

Sarah Fister Gale



James Milton Switzer was one of the original icons of the precast, prestressed concrete industry. Born in Niagara Falls in 1918, he began working with prestressed concrete before most people had heard of it, making his own forms and introducing the

safety and durability of the material to engineers, architects, and contractors across the construction landscape.

"Even back then he was always thinking about the future," says his son, Glen Switzer.

James Switzer went to college at Ohio Northern University in Ada, where he pursued an engineering degree. In 1942, he left school to enlist in the Army Corps of Engineers and he served with them during World War II until 1945. During his service, he was stationed in the Philippines. Glen Switzer says his father spent much of his time maintaining a set of electric generators that powered printers used by reconnaissance pilots to print photos they took of the enemy landscape each day.

After the war, James Switzer returned to Niagara Falls, where he married his college sweetheart and took a job as a materials inspector for the State of New York. A year later, Frontier Stone and Dolomite, a crushed stone manufacturer in New York, hired him for a management job. There, James Switzer steadily worked his way up the ranks. By the mid-1950s, he was a vice president and had begun to hear about a new building material called prestressed concrete. He was intrigued by the material and the possibilities offered by the precast, prestressed concrete double-tee design.

In 1954 he had a form custom made to make 4 ft (1.2 m) wide double tee with 16 in. (400 mm) deep stems. "That was really new technology in the '50s," says Glen Switzer, who followed his father into the business and is a sales manager for Dura-Stress in Florida.

Right away, James Switzer saw the potential of precast, prestressed concrete, and he began promoting the material to clients and running tests to demonstrate its safety and reliability as a building material. Then in the 1960s, James Switzer took over Frontier with a partner, helping to expand its prestressed concrete business. When he and his partner parted ways in 1965, James Switzer took the prestressed part of the business and launched Lockport Prestressed Concrete, opening a plant on a parcel of land adjacent to one of the quarries. "That's when he really began to get involved with PCI," Glen Switzer says.

During those years, James Switzer designed and built many notable projects, including a factory for Purina dog food that features precast, prestressed concrete wall panels and roof tees with exposed aggregate. He had to do his own research into the right combination of retarders to use to make the design

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per the owner's requirement. "For the early '70s, that was pretty unique," Glen Switzer says.

James Switzer also came up with a design that featured precast concrete wall panels with a blue tile inlay for all of Midland Bank's many branch locations. "There were no formliners back then, so he built a bed using plastic molding to create the joints and to lay the tile," Glen Switzer says. "He spent two years cranking out those wall panels, and a lot of them are still around today."

Throughout those years, James Switzer was active in PCI, helping to shape the industry. "He was always looking ahead, trying to figure out how to do things better in the future without losing sight of doing the best job today," Glen Switzer says. Switzer thinks that if his father were around to offer advice to the next generation of PCI members, he would tell them to work hard, be smart, do a good job, and don't cut corners. "He'd also say, 'step in where you are needed," Glen says. "Whether that means finishing paperwork at your desk or jumping on the back of a truck to unload material, he always went where he was needed."

James died August 10, 2013, at the age of 94, but his legacy lives on. Glen Switzer says, "His commitment to doing good work rubbed off on all of us."