

Willet Hauser Architectural Glass, Inc.

ADDRESSES: 1685 Wilkie Drive, Winona, MN 55987 and

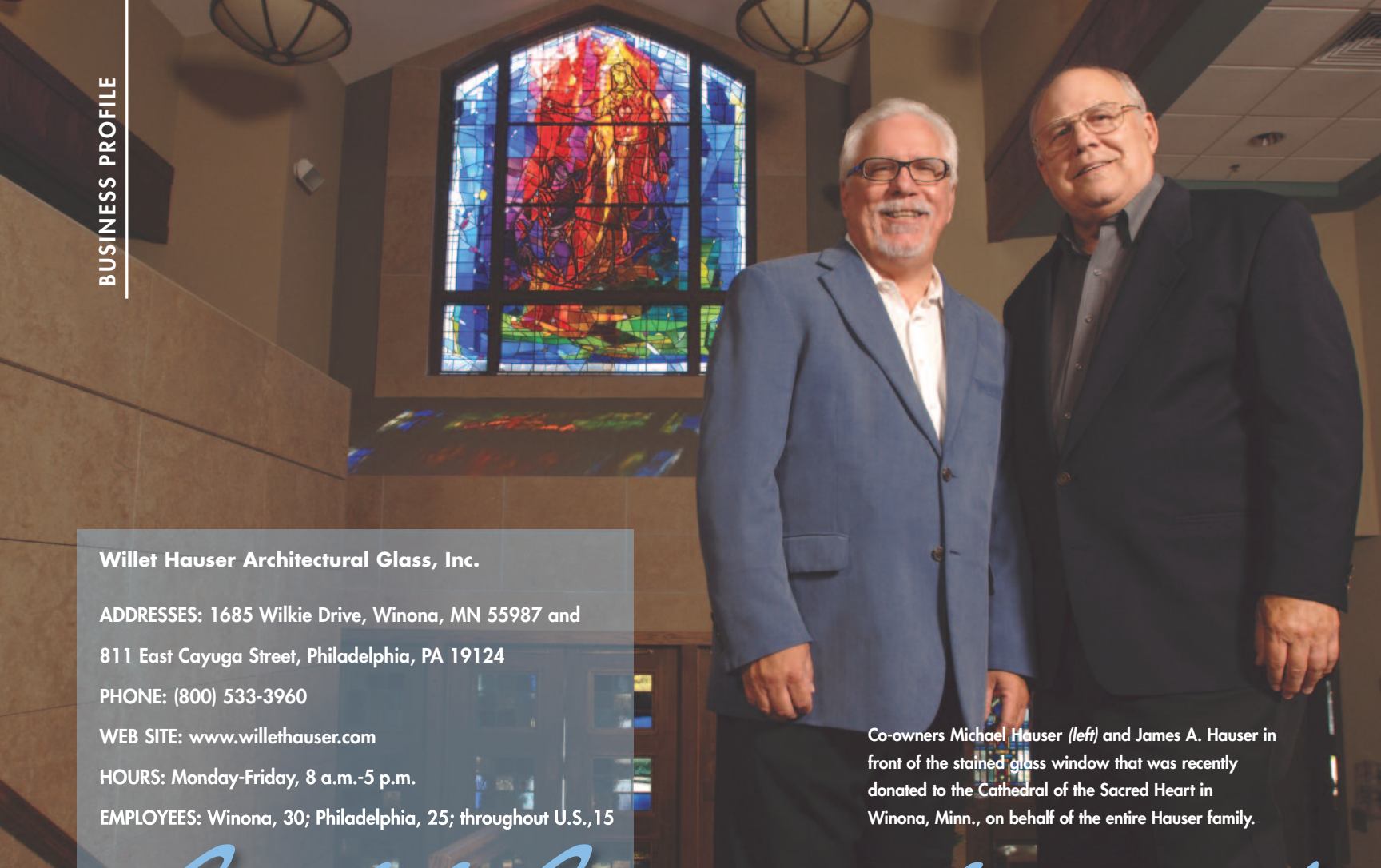
811 East Cayuga Street, Philadelphia, PA 19124

PHONE: (800) 533-3960

WEB SITE: www.willethauser.com

HOURS: Monday-Friday, 8 a.m.-5 p.m.

EMPLOYEES: Winona, 30; Philadelphia, 25; throughout U.S., 15



Co-owners Michael Hauser (left) and James A. Hauser in front of the stained glass window that was recently donated to the Cathedral of the Sacred Heart in Winona, Minn., on behalf of the entire Hauser family.

Light learns to speak

by Linda Duffy, photography by Bruce Defries

In our fast-paced world, where the struggle to keep up with ever-changing technology is a job in itself, there is something comforting about a process that has, for the most part, remained unchanged over time. Overall, the art of designing, creating, and repairing/restoring stained glass windows remains in the hands of artisans for whom true beauty is achieved the way it has been for hundreds of years, one hand-cut piece of glass at a time.

With its corporate headquarters in Winona, Minn., Willet Hauser Architectural Glass, Inc., was created in 1978 through the merger of two companies—Willet Studios and Hauser Art Glass—each with decades of experience in the stained glass business.

An artisan finds an outlet

In 1898, artist William Willet who had gained prominence during the American Gothic Movement founded Willet Studios in Philadelphia, Penn. An accomplished artist, Willet became well-

known for his emphasis on traditional materials and designs. Among his numerous accomplishments, Willet is credited with creating the first medallion-style windows in the United States.

One of Willet's most historic accomplishments came as a result of his competing for and winning the commission for the Great Sanctuary Window in the Cadet Chapel located at the West Point Military Academy in New York. The window design, named *Duty, Honor, Country*, measured 34-foot-wide-by-50-foot-tall and was so well-received that it resulted in subsequent commissions for windows within the same church. "The cadets were so impressed by the design that they wanted more windows," says Jim Hauser, co-owner and vice president of Willet Hauser Architectural Glass, Inc. "After 1910, each class of cadets donated class gifts to fund sections of the large windows located throughout this cathedral-sized church. Each class gave two sections, one in the name of its class and one for the class 100 years previous, so each graduation class through 1976 is memorialized." Because the continuing

commissions spanned 66 years, Willet Studios is credited with the longest continuing commission in American history.

When William Willet died in 1921, his son, Henry Lee Willet, took over the company. Under Henry's leadership, the company realized unprecedented growth, completing projects in all 50 states and 14 foreign countries. Henry also recognized the value of experimenting with new techniques, such as faceted glass windows and Willet's sculptured gold window technique.

By 1965, the business was handed down to a third generation when Henry's son, E. Crosby Willet, became the company's president. For the next 10 years, Willet Studios remained a leader in the design and fabrication of stained glass windows and created windows in many well-known churches, including the National Cathedral in Washington, D.C. and Saint Mary's Cathedral in San Francisco.

An entrepreneur finds a calling

While the second and third generations were building the Willet family business out East, a local entrepreneur created his own niche in the stained glass business. During World War II, the materials (glass and metal) needed to repair stained glass windows had been rationed, which meant that by the end of the war, many small churches in rural areas were left with windows that had been neglected. "The craftsmen at the time were mostly located in larger cities," says Jim Hauser, "and there weren't many local companies who could do repairs." So in 1946, James E. Hauser founded Hauser Art Glass Company in Winona, Minn.

For the first 20 or so years, the company's clientele continued to be made up primarily of small churches, often located in remote areas. However, by about 1960, the company's employee base had grown to include artists adept at reproducing a variety of styles. As a result, the company was also able to design and produce some stained glass windows for local churches, businesses, and residences—though the bulk of its business remained in the areas of restoration and repair. In fact, by 1970, Hauser had become the largest company of the sort in the country.

A conduit between artist and project

In 1977, Crosby Willet contacted James E. Hauser and proposed the idea of selling the Willet business. Crosby wanted to work more closely with clients, and he felt that a merger would relieve him of his administrative duties. The purchase of Willet Studios by Hauser Art Glass was finalized in 1978, resulting in the combination of two of the most recognized names in the stained glass business. Crosby Willet, who is now in his 80s, stayed on after he sold his company and continues to work with clients and artists today.

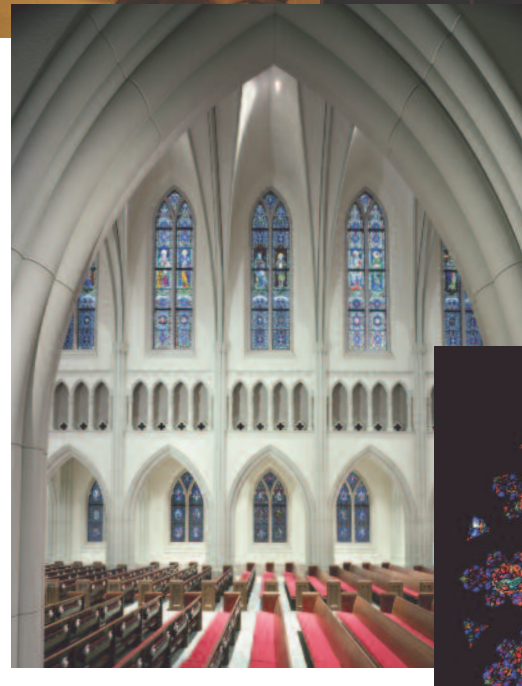
In 1994, James E. Hauser retired, leaving his own two sons to carry on in his footsteps. Jim Hauser, who joined



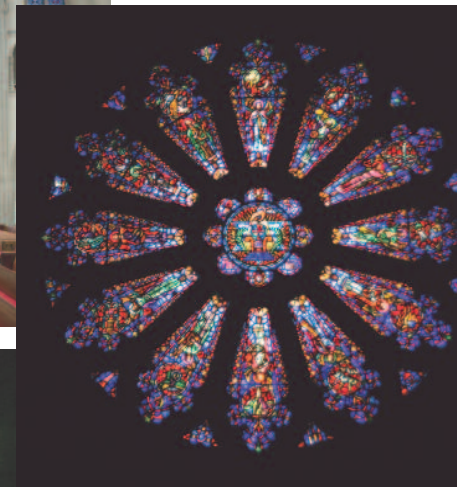
St. Mark's Episcopal
Cathedral, Orlando, FL



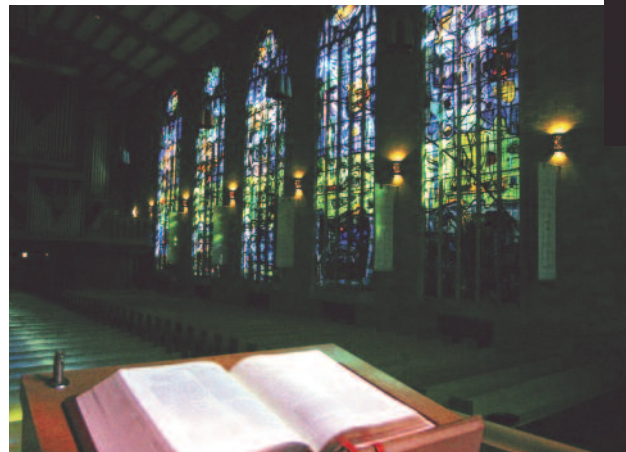
Academy Assumpta
Chapel, Wyncote, PA



St. Martin's Episcopal
Church, Houston, TX



Episcopal Cathedral of Saint
Phillip, Atlanta, GA

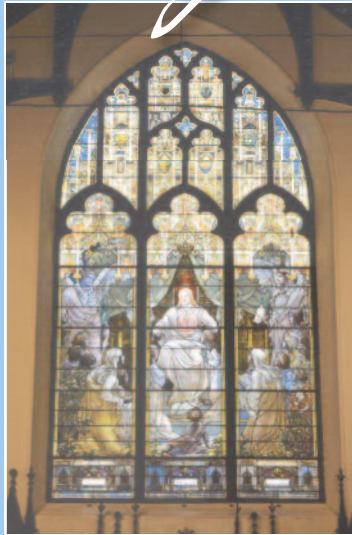


Northwestern University, Alice
Millar Chapel, Evanston, IL

restoring glory

On September 13, 2008, Hurricane Ike ripped through Galveston, Texas. Among the damaged property left behind was Trinity Episcopal Church's large *Christ and the Children* stained glass window. The window was originally created in 1904 by the famous Tiffany Studios of New York. Like many Tiffany windows, this one included several "plates" or layers of glass.

After the hurricane, pieces of glass from one of the multi-layered panels of the window were scattered on the floor and behind the altar of the church. In addition, Ike's high winds had loosened other sections in the frame. Luckily, Willet Hauser had previously been chosen to perform a historic restoration of Trinity's windows, so hundreds of photos had been taken. Otherwise, the historic beauty may have been irreparable.



The first step in the disaster recovery process was to gather the lead and glass remnants of the panel that had been destroyed by the hurricane and transport the glass shards, along with the rest of the damaged window panels, to the studio in Winona, Minn. Back at the studio, the glass shards from the badly damaged panel were carefully unpacked and separated by color and texture.

Next, a type of pattern called a "cartoon rubbing" was created to aid in reassembly. The broken painted glasses on the interior layer and the broken

drapery (folded) glasses were put together on a light table into their proper positions and taped together to form the original glass shapes. Like a jigsaw puzzle, each of the inner layers of glass were also put together. Some of these layers had over 100 small shards that had to be linked.



the service after high school and worked part-time at the business during college, has worked in the family business full-time since 1965. His brother, Michael Hauser, graduated from law school but opted to join the family business in the mid-to-late 70s. In 2005, the partners decided to change the company's name to Willet Hauser Architectural Glass, Inc., to better reflect what they saw as the future of the company.

Today, the company's headquarters remains in Minnesota, but the work is shared between the two studios. The Winona studio still specializes in repair, restoration, stabilization, and preservation projects, which make up about 50 percent of the business, while the Philadelphia studio specializes in the design and fabrication of new stained glass windows, which comprises the other half of the business. According to Jim Hauser, the company employs more glass painters than any other studio in the country, and their team includes some of the most knowledgeable iconographers who help interpret and recreate the religious symbols and images that are common in church window projects.

A portfolio to be proud of

With over 110 years of experience, it's no surprise that thousands of churches and synagogues around the world boast a Willet window, not to mention the numerous museums, universities, hospitals, and homes. But you might be surprised to find these works of art in other public spaces—like subways.

Since 2000, Willet Hauser has been commissioned by the Metropolitan Transit Authority in New York to create a series of panels made of faceted glass at train stations throughout the city. For each station, a winning design submitted by a local artist is selected by the Transit Authority, and the Willet Hauser artisans must bring the design to life. "The artists really force us to look outside the box and find a way to incorporate their designs," says Hauser.

Each project uses one-inch thick chunks of unpainted, richly colored glass, cut and faceted by hand, and set into a matrix of three-quarter-inch epoxy. Rather than using colored painted glass to create depth of color, which is the case for traditional leaded glass windows, the size, shape, and width

of the glass chunks create a distinctive and vibrant piece of art in a style called “faceted glass” or “dalle de verre.” So far, the company has created panels at 34 different city train stations, for a total of over 300 panels of different sizes and shapes.

And while the company works on numerous design projects each year, it also takes on anywhere from 70 to 100 repair and restoration projects, including the recent project at St. Andrew’s Episcopal Church in Mount Holly, New Jersey.

Traditional leaded stained glass windows will show signs of wear and tear over time. Pressure from the wind and changing temperatures may lead to separation of the panels, cracks in the lead between solder points, or even buckling. In the simplest cases, a bit of restablizing can be done to extend the life of the window, but in the case of older windows like the four from St. Andrew’s that needed attention, the lead must be replaced.

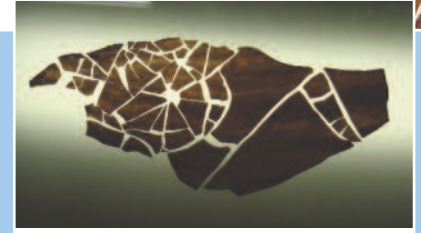
The entire process of removing the windows, transporting them to the studio, documenting the design, disassembling the window, cleaning and repairing each piece of glass, re-leading the window, reassembling the window, and then transporting it back to the site for reinstallation took seven months. Some cracked and broken glass had to be completely replaced, including glass that was layered in several places. Although the restoration project totaled \$170,330, the windows at St. Andrews were appraised in 2004 at \$1,039,725, making the restoration an investment in both the church’s past and its future.

No matter what they are considered, though—an investment, a piece of art, or a symbol of the past, present, or future—there is no doubt that stained glass windows hold a special kind of mystique. Whether we are spellbound by a century-old window or a modern panel perched atop a subway platform, perhaps a little piece of what makes us stop and catch our breath is the appreciation of the artistry and craftsmanship that goes into every pane and every panel.

Linda Duffy is the editor of La Crosse Magazine, a full-time writing instructor at Western Technical College, and an avid fan of all kinds of artwork.



In this case, the painted glass pieces of the base layer had been recovered. They were badly cracked, but they could be restored.

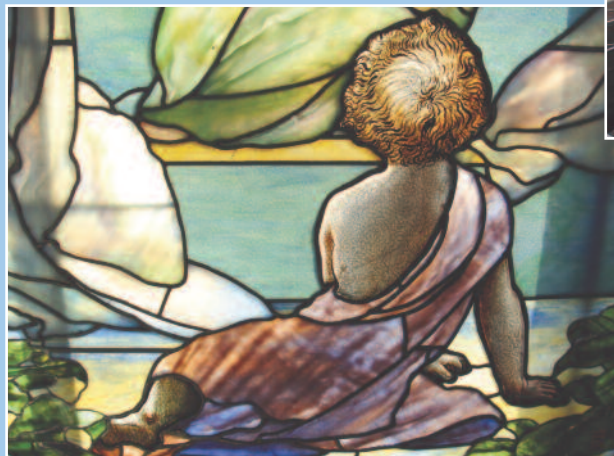


Unfortunately, only about 40 percent of the drapery (folded) glass in the base layer could be restored; the rest would have to be replicated with new glass. In addition to the base layer, this Tiffany window featured a minimum of three layers, with up to five layers in some places. Unfortunately, about 90 percent of the layers outside of the base layer had been destroyed and would need to be replicated with new glass.



The glass that could be retained was cleaned piece-by-piece, edge-glued, and in-filled with conservation glue. The cracked and flaked painting of the base layer was hand-painted, while the layers that were recreated had to be hand-cut piece-by-piece, hand-painted, fired in a kiln, and then assembled.

Eventually, the base layer—and each recreated layer—was soldered at the joints, and a glazing cement was applied to hold the lead in place.



Once the restoration was complete and the new glass for the inner layers had been created, the window was reassembled, transported in panels back to the site, and reinstalled. The \$467,912 project took less than one year to complete.