



Samuel J Green School

New Orleans, LA

Students Thrive at Samuel J. Green Charter School

Samuel J. Green opened as a charter school serving grades K-8 just a week before Hurricane Katrina hit in August 2005. Located in uptown New Orleans, the school had some flooding, but was spared the major damage that the Category 5 major hurricane left in other areas. While the school did reopen in January 2006, it had its own obstacles to overcome.

The building housing the Samuel J. Green Charter School and still had 1920-vintage wood windows. About 20 years ago, while still part of the New Orleans public school system, broken window panes were replaced with Plexiglas. Because of its engineering ease — simply stick it in and it's done with no risk of injury to maintenance staff or students, Plexiglas was a cheap, fast and temporary replacement solution.

Unfortunately, the Plexiglas yellowed overtime. Not only was it ugly to look at — both inside and out — it was even worse at providing proper daylighting. Unnatural, yellow light filtered into the classrooms, creating a dingy atmosphere. It was a terribly depressing setting for students and teachers alike. Natural light is highly desired in a school setting, which research has shown to be beneficial to the learning environment.

Samuel J. Green is one of five FirstLine, Inc. charter schools that come under the supervision of the state-run Recovery School District, which took over most public schools in New Orleans in 2005. The Recovery School District was responsible for repairing damage after Katrina, and they fortunately had enough funds to preserve historic buildings like Samuel J. Green. FEMA money came into Louisiana, but it took a long time to work through the system before reaching projects like the restoration of Samuel J. Green.

PROJECT DETAILS

Systems Provided

Series

4500S Double Hung

Market

Education - K-12

Features

Hurricane Resistant

Project Team

Architect

Verges Rome

General Contractor

Southern Walls & Windows

Representative

Kurtis Suellentrop





The Challenge

While the glass was replaced with Plexiglas more than 20 years ago, the window frames themselves had not been attended to in 50 years. When the FEMA money finally came through, the Recovery School District school board made new windows a high priority for the Samuel J. Green Charter School. Wanting to preserve the look of the original old wood windows, they elected to work with Winco Window Company. The school would benefit from Winco's expertise twofold — historical window replication and hurricane-tested frames and glazing.

The challenge was to recreate the original wood profiles and enhance the structure with very efficient hurricane glass. In collaboration with Verges Rome architects and Southern Walls glazing contractor, Winco Window Company replicated the exact profiles from the original building by creating custom perimeter profiles and installing the Winco 4500S Double Hung windows.



The Solution

One of the challenges was the size of the fasteners. Under normal circumstances, Winco will put in fasteners at the head and the sill. With the Samuel J. Green windows, they had to anchor the new windows into old, lightweight brick to attach them. To ensure that they got enough bite into solid brick to secure the window frames, they used three 3/8-inch fasteners that were six inches long at each jamb. Far above the norm, these "monster fasteners" would ensure that the project was done right. It took two days just to install the first window as it was a learning process and they wanted to make sure everything fit and worked perfectly. After all, these new windows were going to have to withstand the test of time and hurricanes.

The new windows were installed right on schedule, completing the job over the summer. They provide beautiful natural light — so well, in fact, that the teachers and students who were so used to the dark classrooms, ended up adding shades to block out some of the sunlight. The windows are insulated and laminated, and the very efficient hurricane glass meets tough criteria for performance — both in terms of providing maximum natural light and meeting strict building code requirements for a city known to get hit hard by hurricanes. For this area, including the location of Samuel J. Green Charter School, window performance meets 140 mph wind zones.

The result of this restoration is beautiful daylight shining into the classrooms and an exterior that looks clean and cohesive, lighter and brighter. Along with exceptional students and staff, Samuel J. Green Charter School now has a building to be proud of ... both inside and out.

