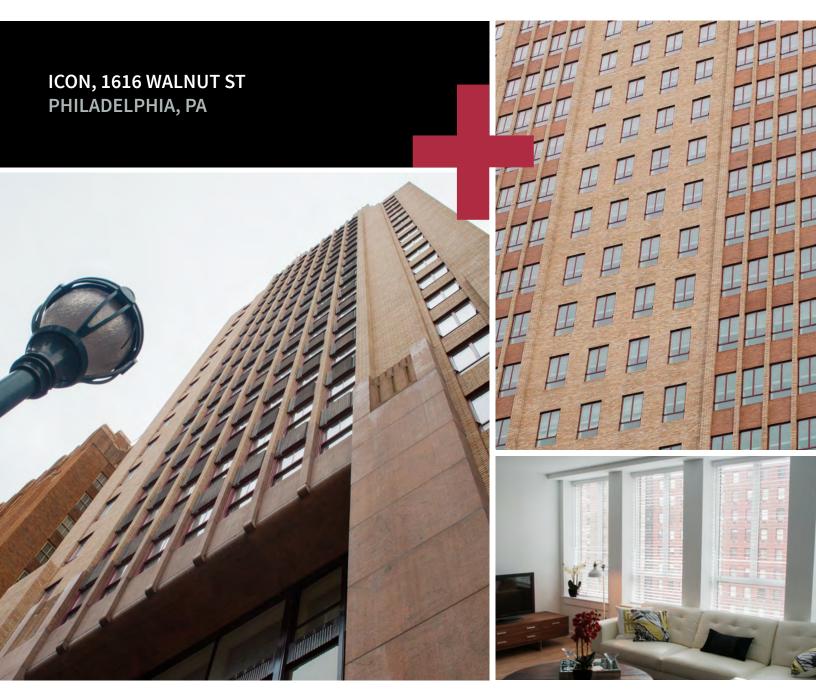
AN ICON OF HISTORIC PRESERVATION CASE STUDY







General Contractor

Hunter Roberts Construction Group

Dealer / Installer

Graboyes Commercial Window Co.

Window Design Consultation

John Cooper, Graham Architectural Products, Manufacturer Sales Rep Bill Wilder, Graham Architectural Products, Director of Technical Sales

Assignment

Replace and replicate to exacting National Park Service standards the more than 1,300 windows in the 1616 Walnut Street Building, one of the most striking examples of Art Deco architecture in Philadelphia.

+ CHALLENGE

Built in 1929, 1616 Walnut Street had for years been one of Philadelphia's premier office buildings and one of the city's most stunning examples of Art Deco architecture.

But new ownership planned to convert the building to residential and rebrand it as "Icon." For Graham Architectural Products, the rehabilitation challenge involved replicating existing steel and metal windows with a thermally efficient aluminum product that would meet the exacting standards of the National Park Service – an especially tall challenge on the main façade with its 173 Campbell Metal Window Corporation windows.

+ SPLENDOR IN THE GLASS

The economics were clear. Office space was renting out at about \$26 a foot, while apartments were going for about \$34.

So investors decided to convert their spectacular 1616 Walnut Street, Philadelphia, high rise from office space to luxury residential. This required a significant amount of renovation and, because the building was one of the city's premier examples of Art Deco architecture, approval from the National Park Service and Philadelphia's Historic Commission.

Since Graham Architectural Products (GAP) is widely recognized as the industry's premier historic window preservation and replication specialist, the owner contacted us. Meanwhile, Graboyes Commercial Windows was contacted by the construction manager, TPSi, and Graboyes reached out to us, too.

Said John Scott, owner of Graboyes, "TPSi wanted the bidding window contractors to partner with a manufacturer to come up with a design that would most closely replicate the existing windows to get the job through historic review. We were really confident in Graham's ability to do it, which is why we quickly selected Graham to partner with on this

Bill Wilder, GAP's director of technical sales and one of the industry's premier historical replication experts, met the owner's representative at the site along with John Cooper, one of GAP's manufacturing sales reps.

The result was a clear understanding of the openings, the materials to be removed, and details of the original windows and how they had been installed

That was the platform for the development of a high performance window that would meet historic requirements, while offering the thermal performance necessary to meet current and future energy codes.

The project encompassed replacing nearly 1,300 windows, including the 173 double-hung Campbell Metal Window Corporation windows in the main facade.

TPSi understood the lead time on windows; they knew the time necessary to not only design them, but to get the designs approved by the National Park Service. And getting the windows installed quickly and efficiently was going to be a vital step in enabling the rest of the trades to complete their work. So TPSi engaged Powers and Company, Inc. of Philadelphia, a historic preservation consultant, to ensure the National Park Service approval went through smoothly and efficiently.

Said John Cooper, "The building had steel windows on some of the side elevations and hollow metal Campbell double-hung windows in the front. Mimicking those sightlines in aluminum is especially challenging."

Because it's a high-rise residential building, the owner didn't want operable windows for liability reasons. On the many casement windows, Graham made the top half of the windows a fixed window

that looked exactly like an operable casement window, with steel hinges on the exterior even though the windows didn't open.

Graham provided full-size mockups to assure recommended windows and installation accessories matched the existing.

Graboyes agreed to swing the entire building, increase the size of its installation crew, and complete a floor at a time to accommodate the needs of the general contractor, Hunter Roberts Construction Group. That came with a price tag, which Hunter Roberts agreed to absorb if Graboyes shaved the install time from 26 weeks to 19.

It all worked out. Said Scott, "The key here is the partnership, because that's what it takes in a design/build situation. 1616 Walnut gave us and Graham the opportunity to come together with a design and a solution that was the best for that building, which took into account the historic requirements, what the needs were going to be for the tenants inside, and the cost implication.

"What Graboyes brings to the table is an understanding of the installation conditions, because we deal primarily in renovation retrofit replacement, while Graham brings an uncanny ability to design and match the look of an old steel window – and do it in aluminum. That combination is what got us the job, and now we have a happy building owner, as well, because we were able to deliver exactly what we said we could."



