

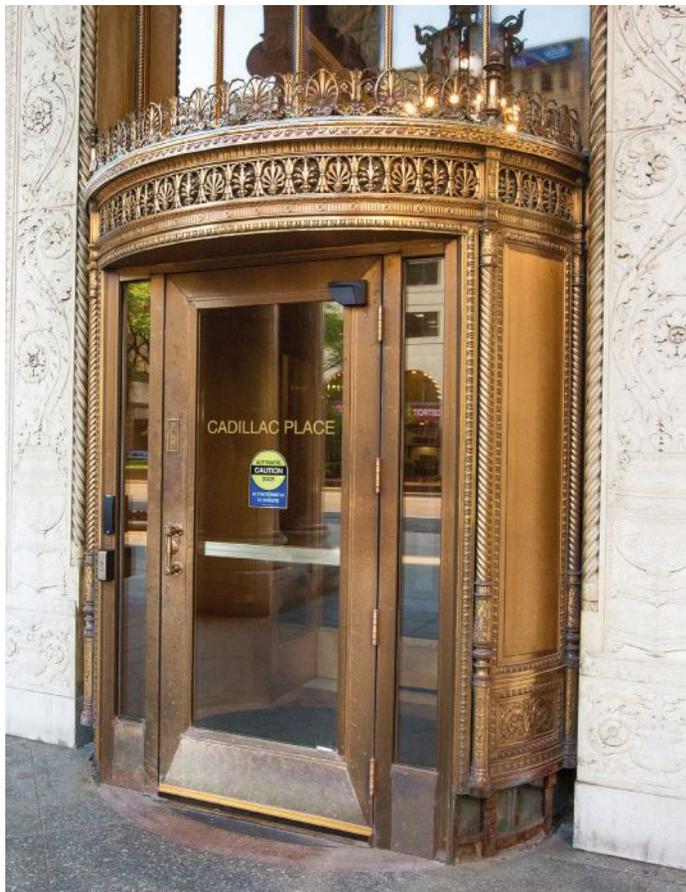
BY JACK SHINDER

Razzamatazz at Cadillac Place

Jazz-era bronze doors create dramatic entranceway to historic landmark.

Impressive and imposing, Cadillac Place dominates a full city block in central Detroit. Today, it's the destination for more than 2,000 State of Michigan employees, who swarm in and out of its noble bronze doors each weekday.

A clear expression of the changes integrated into the modern design can be seen in the accompanying "before" image on the right and "after" image on the left.



But to appreciate the true significance of this National Historic Landmark, you'd do well to let your mind drift back almost a century. The Roaring Twenties were in full swing and Detroit was at the center of it all.

Americans flocked to the booming metropolis to grab their piece of the wealth promised by an automobile industry at full throttle. Indeed, between 1900 and 1930, the city's population would quintuple to 1.5 million.

Big business bred big ideas and dramatic buildings.

It was automobile wealth that bankrolled the General Motors Building, which opened in 1923. (It was renamed Cadillac Place in 2002, after Detroit's founder, Antoine Laumet de La Mothe, sieur de Cadillac).

Widely renowned as an exquisite example of Neoclassical architecture, the limestone-clad building was the second-largest office building in the world. Designed to impress, its exterior was surrounded by an arched colonnade supported by Ionic columns. Around the perimeter, three sets of entrances boasted 18 imposing bronze doors and frames (nine exterior and nine interior), each trimmed with intricate decoration. These opened into a marble-lined arcade filled with commercial enterprises.

In 2017, AMBICO Limited was approached to lend its expertise to an ambitious plan to replace the original solid bronze doors, now worn and failing after close to a century of



use, with modern door and frame assemblies that would meet today's stringent building codes while still respecting the aesthetic of the venerable building.

THE SITUATION

Michigan-based design professionals contacted AMBICO to lend its expertise to the project. The architects' challenges were twofold – to ensure the doors conformed to modern safety and usage codes, and to maintain the integrity of the original design.

In other words, the architects had to take a detailed look at the doors that were in place in 1923, and determine how to recreate that aesthetic for today's world.

Reaching the best design solution involved balancing the needs of the architect with budgetary constraints and technical challenges.

The technical challenges were compounded by the fact that AMBICO was tasked to work with bronze, a relatively soft material that's easily marked and bent out of shape. If the doors had been clad in a more forgiving material such as steel, tiny flaws could be concealed with paint. In this case, AMBICO's skilled fabricators worked meticulously on each door, designing and forming the bronze cladding on a piece-by-piece basis to ensure that each door was perfect.



At the main entrance, the three revolving door rotundas (original on the right) were modified to incorporate swing doors, while maintaining the overarching aesthetic.

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In order to meet accessibility standards, the two glass panels that previously separated the sets of three doors (original to the left) were moved to the edges and replaced by slightly narrower bronze flush panels.



It was a project that demanded a high level of expertise, technical knowledge, an eye for detail, and a commitment to preservation.

KEY CHALLENGES

AMBICO's experts overcame a number of challenges as they collaborated with the architects on the doors' design and fabrication.

One of the biggest obstacles was the depth of the door jambs. In 1923, the jambs were just three inches deep – not a problem given that each original jamb was solid bronze. Using technical proficiency developed on similar heritage projects, AMBICO fit the necessary structures within the frames, while still maintaining the original jamb depth.

Adding to the challenge was the weight of the modern security glass that needed to be integrated into the new panels. Clad in bronze, the new doors are as strong as the originals, and are designed to last for generations.

Modern-day accessibility requirements were the impetus for a second design challenge. To the casual visitor, Cadillac Place is an ode to a glorious time in the city's history, the imposing bronze doors augmented by elaborate friezes and two-story-high arches. But on a more prosaic note, the building is now home to State of Michigan employees and, as such, its doors must meet certain accessibility standards.

The doors had to be widened slightly to ensure that wheelchairs could pass through them. To accomplish this, the two glass panels that previously separated the sets of three doors were moved to the edges and replaced by

slightly narrower bronze flush panels. This provided the leeway to widen all of the entrance doors to 36 inches (with one double 72-inch door designed to allow large items to be moved in and out of the building). At the main entrance on Grand Avenue, the three revolving door rotundas were modified to incorporate swing doors, while maintaining the overarching aesthetic.

HONORING HISTORY

Good design is thoughtful. And upgrading any piece of an iconic building must be done in a way that respects the original character and materials. These doors integrate old and new: the bronze exterior fits the era, but the fact that it clads the door allowed AMBICO to fabricate a lighter structure that was easier to transport and install, and which could incorporate architectural hardware that still met security needs.

As well, and at the request of the architect, AMBICO incorporated design details that included stunning mitered corners and sloped glazing beads to provide a gradual interface with the glass.

AMBICO designers also worked closely with the architect to ensure the bronze cladding on the new doors was as close a match as possible to the original bronze doors, with their decades-old patina. They provided a number of corner samples, testing out polished and satin finishes, as well as different alloys of materials to achieve a perfect match. This type of attention to detail takes time, expertise and a commitment to excellence.

THE POWER OF EXPERIENCE

Although this was a demanding contract, it was one that AMBICO was confident to tackle, given past experience.

AMBICO excels at complex heritage projects like the Cadillac Place. Their experts welcome the challenge inherent in restoring heritage properties and have the expertise to guide architects through the time-consuming process of sourcing materials and reaching design solutions to meet 21st-century building codes.

Today, the new bronze door and frame assemblies at Cadillac Place are modern in spirit, but with an old-world exterior that harkens back to the 1920s. They represent a respect for Detroit's history and recall a thrilling era for one of the country's most storied cities. They also represent Michigan's commitment to revitalize the city's downtown core and a belief in a prosperous future. +



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