



CASE STUDY

71ABOVE

Los Angeles, Ca.

At the top of L.A.'s tallest building, diners enjoy 360-degree views through dynamic glass – and can feel the rush through operable tableside vents.

“Draped with in-the-round views that let customers spy everything from the San Gabriels to the ocean, 71Above is unlike any other restaurant in Los Angeles.”

- Eater Los Angeles



photo © Lawrence Anderson Photography, Inc.

ENHANCING AN ICON

The iconic U.S. Bank Tower, designed by Pei Cobb Freed & Partners and completed in 1989, stands at 1,018 feet tall, making it the tallest in the city of Los Angeles, state of California, and east of the Mississippi. Recognized for both its height and its glowing top-level crown – lit different colors to coincide with holidays and special events – the U.S. Bank Tower now has a new highlight. 71Above restaurant debuted in July 2016 with 360-degree views from its vantage point on the 71st floor. Diners can reserve specific locations in the round dining room, to capture views from the Hollywood sign to the harbor.

But how to ensure those views are always perfect – and diners' experiences aren't compromised by bright sunlight or excessive warmth? Giroux Glass, Incorporated and its high-end design team installed electrochromic glass that can be programmed to tint, control sunlight, and manage heat gain through subtle color changes.



Project Team

Architect: Tag Front
Owner: Emil Eyvazoff
SCGMA Glazier: Giroux Glass, Inc.



Giroux Glass, Inc. Team

Brad Leslie, Director of High-End Design
Alan Shook, Superintendent
Brandon Sanchez, Foreman

Daytime glaziers: Brandon Sanchez, Drew Esquer, Nelson Morales, Mike Avalos, Scott Strife, Joseph Lansing
Stocking: Roger Anaya, Ruben Lopez, Mike Mansker



Scope

192 insulated glass unit exterior windows (3,000 sf of glass) and 48 tableside vents were installed in the restaurant between December 2015 and February 2016.

“Factoring in the installation of technology with the installation of glass is becoming an important part of our process. With the new Title 24 laws, we are going to start seeing this more and more.” - Brad Leslie, Director of High-End Design, Giroux Glass, Inc.

DYNAMIC GLASS

Also called dynamic glass, electrochromic glazing eliminates the need for internal or external shading devices or glare protection. In addition to improving occupant comfort and visibility, dynamic glass offers UV protection for interior fabrics and finishes. The electrochromic industry expects to achieve \$4 billion in market share by 2023, according to SageGlass, a wholly owned subsidiary of Saint Gobain and a world leader in energy efficient window glass.

A total of 192 units of SageGlass’s eponymous triple-pane glazing were installed at 71Above. The dynamic system operates via programmable software controlled by restaurant management. Up to three tint zones in each pane of glass enable customized light settings that track the sun’s trajectory and can be adjusted for season or time of day. A mobile control app complements traditional wall controls, affording flexibility to change the glass settings from anywhere at any time. In addition to affording diners clear views, the windows reduce HVAC demand by blocking up to 91 percent of the solar heat.

According to the SageGlass website, “It takes less electricity to operate 2,000 square feet of SageGlass than it does to power a single 60-watt light bulb.”

Giroux Glass Director of High-End Design, Brad Leslie explained that the installation of electrochromic glass required many considerations. Space needed to be planned to include the hardware and software necessary to operate the windows. “Factoring in the installation of technology is becoming an important part of our process,” Leslie said. The Giroux Glass team offers proficiency in advanced technology installations and regularly installs dynamic glass.

COMFORT LEVEL

Giroux Glass’ Union-certified glaziers were comfortable with both the project’s technology and working at the extreme height, even in the busy downtown location. They have consistently serviced the U.S. Bank Tower on several past projects and worked on L.A.’s next tallest skyscraper, the AON Building.

According to High-End Design Superintendent Alan Shook, “The biggest challenges were wind and weather. At over 1,000 feet, the conditions are very different than way down at street level.” High winds caused swing stage operations to shut down for a few days of the three-month installation, but predicted El Niño rains never happened, and Giroux Glass finished ahead of schedule.

CUSTOMIZED SOLUTION

Due to size constraints in the SageGlass manufacturing process, the windows could not be made as single lites. Instead, the Giroux team designed an additional horizontal band of glazing to match the existing lower window section. The center lites of each window measure 21-by-120 inches. These are flanked by lites of 34-by-100 inches. The upper band of windows includes center lites of 21-by-35 inches flanked by lites of 34-by-33 inches.

SENSORY EXPERIENCE

The windows at 71Above add another element to diners’ sensory experience. Operable tableside vents can be slid open or closed by guests who want to feel the 1,000-foot breeze.

71Above is owned by restaurateur Emil Eyvazoff, for whom Giroux Glass worked directly. Architecture and interior design was by Tag Front.

From left: Giroux Glass, Inc.’s union glaziers Drew Esquer and Joseph Lansing watch as Brandon Sanchez adjusts electrochromic glass from a swing stage suspended at 800 feet; completed views of tables with vents; room view showing different glass tints (images courtesy Giroux Glass, Inc.)

