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## Big Builders: The Nation's Top Contract Glaziers



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which incorporates a rainscreen portion and a vision portion. German-based Thiele Glas manufactured the 1-inch-thick, laminated, low-iron glass.

“We had to select a raw float glass supplier, order the raw float glass, get samples approved and then coordinate/confirm the geometry of the glass almost a year before it got installed to allow for all the steps required to get the product to the jobsite on time,” says Gray, who personally made five trips to Thiele Glas. “Due to the long lead times, we had to design the glass first, then make everything else fit to the glass design.”

**Like No Other**

“It is technically a structural glass rainscreen system,” says Gray. “The glass is deadloaded to the foundation and lites are stacked upon each other. The windloads are transferred to the back-up stud wall via aluminum windload hooks, [which are] structurally glazed to the back of the glass. This is all hidden in the final construction.”

Gray says the glass system is different than anything NEC has worked with and is unique to the glazing industry as a whole. “I don’t believe another facade like this exists in the U.S.,” he says.

“Some portions are rainscreen with a polar white interlayer, and the vision areas have a very small dot frit pattern

on the number-two surface with a clear interlayer,” he says. “... The transition from rainscreen to vision glass occurred on the same lite of glass, making it very unique.”

He adds, “This was accomplished through great manufacturing of the glass, and developing the hidden waterproofing membrane, to make this transition.”

Gray says that because the glass was manufactured with a structural interlayer, it allowed the vertical mullions originally present at the vision glass vertical joints to be eliminated completely.

**Overcoming Obstacles**

“The biggest challenge was developing and coordinating the glass facade back-up stud wall system with the vision portions of the glass, making sure the hidden waterproofing tie-ins were in the correct position to vision glass to create the facade’s unique and nearly seamless look while providing proper function,” says Gray.

Another challenge for NEC was maintaining tight tolerances with glass of that size. “The glass joints were only a half-inch, which, for glass this size, is quite small,” he adds.

NEC was contracted for the job in the spring of 2013 and placed the last large lite of glass on October 14, 2014.

**From the Inside**

Natural daylighting is a prominent feature of the gallery, which utilizes dif-fusing roof skylights to provide a majority of the lighting required to view the glass art inside.

The majority of the windows and all of the skylights in the building are double glazed insulating glass units, which incorporate high-performance, low-E coatings.

Phifer says the project required a lot of calibration to control the daylight.

“What is remarkable about Corning Incorporated is their support for innovation, support for being inventive,” he says. “We did a lot of things that required careful research and calibration.”

**Not So Simple**

Phifer says the museum gives off a “contemporary” and “pure” ethos. “It represents an optimistic future.”

“For as simple as it looks—a big white box—it was extremely challenging to design and build,” says Gray. “There is so much going on behind the glass to create the final look that only those intimately involved can truly appreciate it.”

Adds Phifer, “It was a completely collaborative effort that required everyone working together from the very beginning. I’m absolutely thrilled with how it came out.”

*continued on page 60*

**A dramatic, curved façade stands guard at the entrance of a mixed-use facility in Beverly Hills.**



**AROUND THE BEND**

Bent glass continues to be a creative and innovative application for facades in North America.

One such project is the 75,000-square-foot, four-story, mixed-use Wilshire & Robertson Medical Office in Beverly Hills, which boasts a dramatic, curved facade. Designed by Clinger Spina Architects, the building’s front facade utilizes Guardian’s SunGuard CrystalGray and SunGuard SuperNeutral 68. The customized

bent glass was fabricated by Precision Glass Bending.

“The biggest challenge on this project was engineering the front curved elevation,” says Martin Stueve of Intrepid Glass, the contract glazier.

According to Stueve, the overall height of the front elevation was 69 feet, 10 inches, and it extended 11 feet, 6 inches past the top of the roof. A segmented curtainwall also extended 11 feet, 6 inches with the balance of the fourth floor run-

ning past the roof 88 inches.

Stueve adds that the most challenging part of the curved curtainwall was what he refers to as the “wings” portion, as “the last two lites of glass were technically free standing.”

The architects specified SunGuard AG 50 on CrystalGray for the remaining portions of the façade. That glass was fabricated by Trulite Glass and Aluminum Solutions.

*Photo: Guardian Industries*