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Glass facades reflect savings in energy, style

Lighter, cheaper material takes center stage around Bryant Park and other office-heavy areas

By John Celock

Entering your workplace and having the world at your feet, from the floor to the ceiling, is no longer unique to the corner office.

Radiating out from the Bryant Park neighborhood, all-glass office building facades are reflecting a new Manhattan construction trend. Two of the most striking examples away from the park are the new New York Times Building and the new 7 World Trade Center, which both feature huge glass facades.

Upgrades in the quality of glass, along with increased demands for energy efficiency and panoramic views, are behind the trend in glass-fronted office buildings, experts said. According to Steven Kratchman of Steven Kratchman Architects P.C., the trend toward glass can be explained in a number of ways. Glass can be produced and assembled on site faster than traditional brick and mortar buildings.

Advances in glass production in the last two decades have allowed glass to run floor to ceiling and still preserve structural and aesthetic concerns. The energy and visibility benefits of transparency are bolstered by a variety of tinting films, which allow more energy-efficient sunlight and heat distribution. Also, glass is a lighter building material, and that allows for more space and cost savings.

"If you are building with a glass facade and not stone, it is lighter to the tune of 50 to 70 percent," Kratchman said. "We went from stone and brick to glass and lightweight metal panels on a building in the Meatpacking District, and we went from four to six stories."

The former Verizon Building at 1095 Avenue of the Americas, across from Bryant Park, is renovating its traditional brick-and-mortar structure to an all-glass facade. Equity Office Properties bought the building last year, and said the design change will create more space and additional cost savings for the developer.

The system of double-paned glass allows for gas insulation between the panes along with an upgraded glazing system. The glazing reflects sunlight away from the building in order to reduce heat. In colder months, it can allow in more heat as well. Robert Winter, executive vice president with Equity, projects that the developer and tenants will see a savings of between 75 cents and a dollar a square foot in energy costs with the switch to glass.

Winter noted that the views overlooking Bryant Park in Midtown have made this a hub for all-glass buildings, with the all-glass Bank of America tower currently under construction and 505 Fifth Avenue recently built nearby. In addition to the park, he said higher floors command floor-to-ceiling views of Central Park, Lower Manhattan, New Jersey, and the rivers.

The switch to glass at 1095 Sixth Avenue allows for more space to be leased. Frank Frankini, the building project manager, said the building currently has large columns in the middle of the floor, which are being



PHOTOGRAPH OF BRUCE FOWLE BY MICHAEL TOOLAN
(Top) Architect Bruce Fowle in the New York Times headquarters under construction on Eighth Avenue in Midtown; (bottom, left) a rendering of 505 Fifth Avenue; (bottom, right) a rendering of the new Times headquarters



reduced after the glass is installed. In addition to space saved from the reduced columns, the energy systems lining the walls have been removed and are now in the ceiling, providing more space.

"There is a market demand for more natural light and better views," Bruce Fowle of FX Fowle architects said. "Brokers say that customers prefer ribbon windows."

Fowle is working on the new New York Times Building at 40th Street and Eighth Avenue, which also has an all-glass facade. The design for the building allows for a ceramic veil on the glass, along with a shading device built into the glass. He said the design will take advantage of the natural light while allowing for control of the shades and ceiling lights. The Times Building will employ daylight dimming systems, which will be controlled by the amount of light allowed through the glass. The philosophy behind the design is to provide openness for the newspaper, which currently operates in a darker enclosed building.

"This will be a building which will glow all night long while it is functioning," Fowle said. "It will be a glowing element in the cityscape."

New technologies brought in from Europe are part of the trend toward glass buildings. Kratchman said some of the technologies now being employed on the Continent will help develop more glass buildings in this country.

One innovation he cited allows for one to two feet of space to be brought between the panes of glass. This space will allow for outdoor air to circulate into the space and be heated and cooled, depending on the season. The air will then be brought into the building and lead to greater efficiency since less will need to be spent on conditioning the air. Kratchman said this technology is common in the glass buildings of Germany.

"People want to engage with their environment," Kratchman said. "To have a barrier of masonry and not being able to see the sky or trees, it makes people claustrophobic." ■



(Top) The Bank of America tower on Bryant Park; (bottom) rendering of 1095 Avenue of the Americas

