

## **New Multifamily High-Rise Targets Sustainability with Crystal Vinyl MAGNUS Windows**

**- Queens NY Project is Among Tallest North American Use of uPVC Vinyl Windows -**

**QUEENS, NY, September 30, 2021** – A newly completed sustainable mixed use multifamily high-rise project in Jamaica, NY, is using advanced uPVC vinyl windows supplied by Crystal Window & Door Systems to achieve their energy efficiency goals. The two towers of the Archer Green Apartments, rising 23 and 20 stories each, used combinations of Crystal MAGNUS Series 4500 uPVC windows to complete the 1,301 building openings. The new development is located in the heart of the Jamaica (Queens) neighborhood at 92-32 168<sup>th</sup> Street.



*Crystal Window & Door Systems recently supplied over 2,400 advanced MAGNUS Series 4500 uPVC vinyl commercial windows for the newly constructed multifamily development Archer Green Apartments in Queens, NY. The project is one of the tallest buildings in North America to use uPVC windows.*

The Crystal MAGNUS uPVC (unplasticized polyvinyl chloride) windows provide a remarkable balance of high commercial window structural ratings, great sound attenuation, and extraordinary thermal efficiency. All of these are important factors as the new building is seeking LEED Gold Certification and it is located just off a busy heavily trafficked Jamaica Avenue. At 23 stories, Archer Green Apartments is Crystal’s tallest MAGNUS window project to date and is one of the tallest buildings to use uPVC windows in North America by any manufacturer. The Crystal Archer Green project is a leading example of the increasing popularity of high-rise uPVC windows. In Europe, uPVC in tall buildings has been common for years.

“After the architect considered a heavy-commercial aluminum window, Crystal showed them the MAGNUS uPVC window which offers strength and energy efficiency with a clean modern look,” said Steven Yu, Metro New York Sales Manager. “With advanced testing performed at an independent lab, Crystal demonstrated the MAGNUS would be the perfect solution and all project partners were convinced.”

The remarkable Crystal MAGNUS Series 4500 windows offer the best of both worlds: structural performance equal to top aluminum window products while also providing the outstanding thermal performance of vinyl windows. With its European-inspired design, strong durable MAGNUS uPVC windows are especially suitable for large openings in multi-family, commercial, select high-rise, institutional, and even upscale residential properties.

Crystal supplied a total of 2,444 MAGNUS Series 4500 In-Swing and Fixed windows outfitted with vision or HVAC louver panels and configured in mullied combinations totaling 1,301 units. Most of the MAGNUS units for the project consisted of reinforced in-swing windows mullied atop window frames fitted with louver panels, and in many cases alongside tall flanking fixed windows. The largest combined units spanned 72” wide by 96” tall.

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The MAGNUS 4500 In-Swing and Fixed windows both offer 3-¼” jamba, strong, energy efficient multiple cavity sashes and frames and boast an outstanding CW-PG95 AAMA structural rating. The In-Swing casement model’s standard features include quality hardware, multi-point locks, sash perimeter compression seals, and optional NY City code window opening control devices (WOCD). All the MAGNUS windows have a durable High-Definition Finish (HDF), with Anthracite Gray exterior and extruded white interior colors.

All the glazed MAGNUS windows for the project used dual-pane 1-¼” insulated glass units (IGUs) fabricated with stainless steel Intercept Warm-Edge spacers and Vitro Solarban 70XL low-E coated glass. The IGUs were Argon-filled for enhanced thermal efficiency and used tempered or laminated glass where required for safety. Both the glazed In-Swing and Fixed MAGNUS window met or exceeded project specifications of U-value 0.26, SHGC 0.37, and VLT 43%. Sound reduction OITC rating specifications ranged from 23db to 33 db, depending on the floor.

Another 960 MAGNUS 4500 fixed window frames were factory glazed with louvers and 1” insulated blank-off panels for mating at the jobsite with PTAC units supplying individual room HVAC. The Model AEL-42 aluminum louvers were supplied by Reliable Products of Geneva, AL.

The Archer Green Apartments development is playing a key role in the redevelopment of its surrounding neighborhood. An interesting new property, Archer Green blends mixed-income affordable housing, ground floor commercial retail space, and a substantial community facility in the heart of downtown Jamaica, Queens. Totalling 420,000 sq. ft., the building offers 351 apartments in two residential towers and below-grade parking. The 23- and 20-story residential towers rise above a commercial 2-story pedestal which accommodates the retail space and community facility as well as a rooftop terrace and garden area. Targeting LEED Gold Certification, Archer Green features many sustainability features in addition to the Crystal MAGNUS windows, including a novel state-of-the-art on-site Resilient Power Hub (RPH). This micro-grid system combines solar, co-generation, and reserve battery storage to provide electric power for emergency use and to reduce daily operating costs.

The Archer Green Apartments project was initiated through the close cooperation of three New York City agencies: the Economic Development Corporation (EDC), the Housing Development Corporation (HDC), and the Department of Housing Preservation & Development (HPD). The project is part of the City’s Jamaica NOW Action Plan to revitalize this bustling commercial and residential neighborhood in Queens. It is built on a site that once held a New York Police Department parking garage.

The owner’s representative was Renewable Construction/Omni NY LLC. Edelman Sulta Knox Wood (ESKW) Architects of New York, NY, was the project architect, and Lettire Construction of New York, NY, was the general contractor. The fenestration installer was Marvel Contracting Service of Queens, NY.

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Crystal Window & Door Systems is one of the top 30 manufacturers in North America of replacement and new construction vinyl and aluminum window and door products and high-end fenestration systems. Crystal offers a full product line, rapid order-to-delivery times, quality workmanship, innovative product features, outstanding value, and an experienced and knowledgeable staff. Headquartered in New York, the company operates a national network of factories, branches, subsidiaries and affiliates in California, Illinois, Missouri, Ohio, and Pennsylvania. For further information about Crystal and its products, call 718-961-7300, or visit the website at [www.crystalwindows.com](http://www.crystalwindows.com).