



Case Study

**New York City Housing Authority
New York, NY**

Large Doors Help Service Trucks Hit the Street

Wilson Premier™ Doors Keep Municipal Vehicles Secure

The largest housing authority in the country, the New York Housing Authority (NYCHA) has 178,480 apartments (as of May 2009) in 338 developments throughout the City's five boroughs. A total of 641,856 New Yorkers are served by NYCHA, and, if it was considered to be a city, it would rank 19th in the US. With New York City covering 305 square miles, servicing these buildings takes a considerable inventory of vehicles that must be kept in top shape.

Maintaining this vast expanse of properties is a major activity for the city of New York. Over the past 16 years NYCHA has invested more than \$6.1 billion in improving and modernizing their properties. More recently NYCHA has been working with \$423 million in Federal stimulus funding.

Keeping this program running requires a vast fleet of maintenance vehicles, part of which is housed at a garage in the shadow of the historic Queensboro Bridge in the borough of Queens. As if the size of the Housing Authority's territory and inventory of properties wasn't big enough, the facility is adjacent to the Queensbridge Houses, the largest public housing development in North America. Located in Long Island City in Queens, the 3,142-unit complex opened in 1939, and is home to nearly 7,000 people.

The Queensbridge maintenance garage was recently added to the neighborhood. Helping to house the NYCHA equipment that includes backhoes, oil trucks, dump trucks, vacuum trucks,



and providing reliable access in and out of the complex, is the facility's three Wilson Premier™ vertical bifolding doors. Two of the doors measure 10' x 16' to handle the heavy vehicle traffic and one door is for cars at 8' x 16'.

For the contractor, the installation of the Premier doors might have been one of the easiest aspects of the job. The doors arrived on a Wilson truck, with installation supervised by a Wilson employee, including the rigging and erection of the doors. To minimize hassle, eliminate field welding and jobsite errors the door has a simple, modular, bolt-together design that assembles 75% faster than similar steel doors.

The doors on this maintenance building are designed so that they require little maintenance. As with all Premier Door projects, the doors for the Queensboro facility are custom made and designed to fit the special needs of the kind of operation that takes place in the building.

Besides handling tremendous vehicle traffic, the doors must also help secure the premises. To provide that, and handle the size of the door itself, the Premier frame is constructed of 6061-T6 aircraft grade aluminum, making it 40% lighter than steel yet stronger, minimizing stress on the building structure. The raw mill finish provides a clean, crisp look and eliminates the job of painting it every few years.

Wilson provides the door frame, drive mechanism and controls,



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**WILSON
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but not the door's covering. This allows the architect and end-user to think out-of-the-box and use a covering that most suits their application and compliments the building façade. In this particular case, the NYCHA chose a brushed stainless steel covering with glass inserts. The look is stunning, greatly enhancing the look of the building, but also being very practical allowing natural light through the door and effectively securing the opening.

Wilson's Premier door also provides effective protection from the elements through the natural rubber top seal combined with neoprene side seals and a natural rubber bottom loop seal. The inside of the Queensbridge facility is heated/air conditioned, so when this very large door is closed it forms a refrigerator tight seal to prevent the escape of that energy.

The Premier door requires little headroom or wall clearance. There is no track on the floor and because the door is installed on the outside of the opening, there is no need for support mechanisms or tracking from the ceiling.

For architects, one of the benefits of the Premier drive system is that it can be located practically anywhere near the door. On the Queensbridge garage to save wall space Wilson mounted the drive on the door's bottom panel. Besides enabling the doors to fit into the limited wall area the drive positioning enables easy access if service is needed.

The Premier door is powered by Wilson Ascent AC-Drive, engineered for a smooth, soft, start and stop; minimizing wear on the motor and components. The single phase, 230-volt drive also significantly decreases the opening/closing time of the door so crews can spend less time in the garage and more time on the road. The control boxes are wall mounted in the narrow spaces between the doors, and features three button Up/Down/Stop operation.

Just a simple push of a button automatically opens and closes the door. The door is also outfitted with safety photo eyes. Should a vehicle attempt to pass through the doorway while the door is closing, it breaks the photo eye beam, signaling the door to reverse and stay open until reset at the panel.

As a result of the Premier door's practical design and features, NYCHA vehicles can be securely housed during off-hours, and assured quick and easy access out of the building when it's time to hit the road. The door aesthetics compliment the building and enhance the neighborhood.



Archi™-Tec™ Premier™ Door at a Glance

Architectural aluminum tubing used in the construction of the door. While tubing can be painted, NYCHA chose raw, mill finish for a clean, crisp look.

For the door's skin the sky's the limit. One of the appealing aspects of the Premier door is that Wilson does not provide the skin. Just the frame. The architect, end-user or contractor can think outside-the-box. Wilson has manufactured doors to accept glass, translucent plastic, brushed aluminum, stucco, wood facades, and composite concrete.

A Secure Seal. The door's natural rubber top and bottom seals and neoprene seals, the door forms a refrigerator-tight seal. Special door kick-outs are fabricated and special locking mechanisms employed.

Door-mounted motor and drive mechanism. Because nearly the entire façade was devoted to providing the doorway, there was virtually no side room to work with. Wilson mounted the drive on the door's bottom panel.

What kind of controls do you like? Remote push-button? Keyed entry? Number pad? Swipe card? Wilson can do it all.

Variable-speed AC-Drive. Each door is driven by Wilson's Ascent™ variable-speed AC-Drive smoothly opening and closing the door for quiet and efficient and trouble-free operation.

Installation is as easy as 1-2-3. For the contractor, this might have been the easiest portion of the job. If the door panels have to be spliced, simple bolted together, modular construction allows for quick and easy installation no field welding. Wilson's trucks deliver the doors with TLC and our driver stays to supervise the installation. This insures the product arrives without damage and is installed properly.