

SHOWCASE PROJECT: RISEBORO COMMUNITY PARTNERSHIP: KNICKERBOCKER COMMONS

SOLUTION OVERVIEW

Knickerbocker Commons is New York State's first 100% affordable multifamily building built to the Passive House standard. Built on vacant city land in Bushwick, Brooklyn, the 24-unit building was developed through New York City Housing Preservation and Development's Low Income Rental Program.

The project was recognized in Mayor Bill de Blasio's One City Built to Last, an initiative committed to reducing New York City's greenhouse gas emissions by 80 percent by 2050. RiseBoro Community Partnership has completed seven projects to meet Passive House standards and is leading the way toward wider adoption of Passive House in affordable housing construction.

SECTOR TYPE

Multifamily

LOCATION

Brooklyn, New York

PROJECT SIZE

33,581 Square feet

FINANCIAL OVERVIEW

Project Cost \$9,804,345

SOLUTIONS

Passive House is a rigorous design standard that uses continuous insulation and an airtight building envelope to prevent infiltration of outside air, eliminating thermal bridging. These construction techniques rely on energy recovery ventilation (ERV) systems to control the movement of air, vapor and heat, creating an interior space that maintains high indoor air quality and a comfortable temperature.

Other energy-saving features include:

- Natural light and human activities keep the space generally warm. Knickerbocker Commons' sculpted exterior insulation and finishing system (EIFS) façade and triple-paned

windows optimize solar gain/shading, replacing the traditional heating system.

- Unitized ERVs in each rental unit provide fresh air and exhaust stale air while incorporating heat exchangers that facilitate the transference of heat and moisture between the two air streams.
- Two sealed combustion boilers deliver both domestic hot water and feed hydronic baseboard heaters controlled by thermostatic radiator valves.
- Airtight window air conditioning units provide the limited cooling needed for tenant comfort.
- The project uses only 20% of the energy of an average New York City building of the same size but was built for the same cost per sq. ft. as typical affordable housing projects in NYC.

PROJECT FINANCING

The land for this project was acquired from New York City for \$4.00, significantly lowering total project costs. The hard cost of the construction of Knickerbocker Commons was \$7,140,000. The total project cost including soft costs, fees, permitting, architecture, engineering, etc. was \$9,804,345.

The project costs and financing sources include:

PERMANENT SOURCES

Low-Income Housing Tax Credit Program, (LIHTC)	\$4,567,000
Lender	\$1,772,598
Division of Housing and Community Renewal - Housing Trust Fund, DHCR-HTF	\$1,393,550
Housing Preservation & Development, HPD (HOME)	\$315,000
Deferred Developer Fee	\$200,000
Reso A—Dilan (NYC Council and Borough President Discretionary Funding)	\$1,500,000
New York State Energy Research and Development Authority, NYSERDA	\$56,197
TOTAL PERMANENT FINANCING SOURCES	\$9,804,345

USES OF FUNDS

Land Acquisition Cost	\$4
Construction Cost	\$7,140,000
Soft Cost	\$1,625,111
Developer's Fee	\$780,000
Working Capital	\$78,000
Project Reserves	\$181,230
TOTAL USES OF FUNDS	\$9,804,345

OTHER BENEFITS

Bushwick has undergone substantial redevelopment in recent years. This has pushed rents out of

reach for many longtime Bushwick families, driving a need for new affordable housing that is the foundation for success in any neighborhood.

Knickerbocker Commons apartments are affordable to families earning less than 30%, 50%, and 60% of median income. There are four 1-bedroom apartments, 16 2-bedrooms, and four 3-bedrooms. Six of the units are subsidized for extremely low-income residents through project-based Section 8 rental assistance. Five of the units are set aside for families requiring accommodation for a physically handicapped household member. Residents are provided with RiseBoro's network of supportive services and social programs, and a children's daycare center on the ground floor makes the building an asset to the surrounding neighborhood.

Annual Energy Use

Baseline(Estimated)(2014)



Actual(2021)



Energy Savings

60%

Annual Energy Cost

Baseline(Estimated)(2014)



Actual(2021)



Cost Savings

\$24,238



