

# HANAC Corona Seniors Residence Corona, NY

## Case Study



### **Passive House Design and Quality Living**

Located in Corona, New York, the HANAC Corona Seniors Residence is one of the first affordable senior housing developments in the United States to meet the Passive House Institute design standards. Designed by Think! Architecture + Design and constructed by Bruno Frustaci Contracting Inc., the eight-story, \$36-million building spans 57,675 sq. ft. It houses 68 affordable units geared to low-income seniors on floors two through eight, while the first floor serves the community as a 5,000-sq. ft. early childhood education facility. The residence's intergenerational community model promotes social engagement and learning opportunities through structured and unstructured programming, as well as the use of open and inviting spaces designed for maximum benefit of those who live, work and visit the mixed-use facility. As such, the

development includes a rear yard with a vegetable garden, seating and tables for residents and a separate children's natural play area. A seniors-only open space is located on the fifth floor terrace, accessible through a community room.

### **The goal: Ground-breaking sustainable design**

Efficiency, sustainability and occupant wellness were primary considerations for the building's design. Earning Passive House certification was a key objective for the project, with the goal of achieving 75 per cent energy savings compared to traditional construction. The desire was to create an efficient, safe and comfortable space to provide opportunities for connection and increased quality of life, while contributing to New York City's climate action and sustainability targets.



### The Challenge

First and foremost, and in keeping with the Passive House strategy, the design team zeroed in on the building envelope in an effort to minimize air leakage and heat loss and promote efficiency. Comfort and safety were integral considerations, given the potential vulnerability of the occupants.

“ROCKWOOL insulation was the first choice of our architect due to its excellent thermal and fire resistive properties. From a building owner perspective, ROCKWOOL proved an exceptionally appealing choice for its ability to contribute to a number of priority objectives. The consideration of our occupants was foremost. We had to be highly sensitive to the idea that the HANAC Corona Seniors Residence would house individuals of varying vulnerability with respect to age, health and/or mobility. Life safety was certainly important, and we wanted a best-in class solution. We were impressed that ROCKWOOL insulation does not contribute to smoke development during a fire and could offer valuable passive fire protection. Also central to its selection was the fact that ROCKWOOL insulation could contribute positively to occupant comfort. Our residents are already noticing tangible differences from a thermal, sound and air quality standpoint, supporting their wellbeing. Simply put, ROCKWOOL provided an unmatched value proposition plus key benefits that have a direct impact on safety and quality of life.”



- Paola Duran,  
Director of Housing Development, HANAC Inc.



### The Solution

Beneath the ventilated façade of the HANAC Corona Seniors Residence is the building's continuous exterior insulation, ROCKWOOL Comfortboard® 110 stone wool rigid board insulation. The product was chosen to optimize energy performance because of its high effective R-value that remains stable over time and the need for minimal penetrations and thermal bridges. Comfortboard® 110 also contributes to a more stable indoor environment, along with ROCKWOOL Comfortbatt® and AFB® which were installed throughout the building's exterior cavity walls and partition walls respectively. Creating a well-insulated building was not only an important Passive House measure, but it was also an essential consideration given the building's occupants—largely seniors and young children. Designers were sensitive to the vulnerability of the end users, and thus, the decision to use noncombustible stone wool insulation supported a variety of other key objectives including passive fire protection (ROCKWOOL achieves this without the need for added chemical flame retardants), sound attenuation, and indoor air quality—all expected to impact the wellbeing of those who use the space.

The role of the ROCKWOOL Building Science Team was also a factor, as they conducted comprehensive energy modelling and analysis that ultimately supported the specification of ROCKWOOL insulation into the HANAC Corona project. ROCKWOOL stone wool insulation also helps achieve better building resiliency and complements the building's sustainability profile. Passive House construction epitomizes sustainable design, aiming to minimize adverse environmental impacts and reduce the energy consumption of a building, while contributing to the health and productivity of its occupants—a definition that could easily be applied to ROCKWOOL products themselves. ROCKWOOL stone wool insulation products are made from natural and abundant raw materials and recycled content in a highly sustainable manufacturing process. The performance advantages and sustainable nature of ROCKWOOL products were considerable reasons that they were incorporated into the HANAC Corona Senior's residence and continue to be a best-in-class solution for the growing Passive House Movement in New York City.

### ROCKWOOL

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Milton, ON L9T 6W3  
Tel: 1 800 265 6878  
rockwool.com

#### Year:

2018 (Opened)

2015 - 2018 (Design and Construction)

#### Location:

54-17 101st St., Corona, NY 11368

#### Architect:

Think! Architecture + Design PLLC

#### Certified Passive House Consultant:

Duncan Architects

#### Sustainability Consultant:

Association of Energy Affordability

#### Insulation Contractor:

Bruno Frustaci Contracting Inc. (General Contractor),  
Lavada Inc. (Installer, Comfortboard® 110)

#### Client:

HANAC - Hellenic American Neighborhood  
Action Committee

#### Building Type:

Mixed Use: Senior Affordable Housing  
(Multi-family Residential)

Early Childhood Public School (Educational)

#### Size:

57,675 sq. ft., 8 stories, 68 units

#### ROCKWOOL Application:

Comfortboard® 110 – Ventilating Façade

Continuous Exterior Insulation

Comfortbatt® – Exterior Cavity Walls

AFB® – Partition Walls

#### Certification:

NYSERDA Multifamily Performance Standards for  
Energy Star Certification Meets Enterprise Green Energy  
Communities Criteria  
Certified Passive House

#### Estimated Project Value:

\$36 Million