

# MASTER PLAN FOR ENERGY ASSESSMENT DESIGN FOR NEW AC UNITS INSTALLATION IN CLASSROOM IN ARCHBISHOP MOLLOY HIGH SCHOOL-QUEENS, NEW YORK

**NY Building Systems Consultant Inc. (NYBSC)** contracted by the school for the diagnostic of existing Energy Recovery Ventilators (ERV's) malfunction in school. After ERVs problem solved by the NYBSC technical expert, the school authority awarded NYBSC for the building energy master plan and the building's AC design for the 2<sup>nd</sup> and 3<sup>rd</sup> floor. NYBSC proposed to the school for new Variable Refrigerant flow (VRF) instead of conventional AC as well as show the energy savings with new VRF.

## BUILDING PROFILE

Address: 83-53 Manton St, Briarwood, NY-11435  
Square Foot: 179,024  
Type: Public Facilities and Institutions  
Year of Built: 1931  
Owner: Archbishop Molloy High School

## NYBSC SERVICES

- Energy Recovery Ventilators (ERV's) Diagnostic
- Variable Refrigerant flow (VRF) Units Installation Design
- Energy Master Plan



## PROJECT SUMMARY

Archbishop Molloy High School is a Catholic School located on Manton Street, Queens NY. The School building has two parts: one is New Building, and another is Old Building. There are lobby, mechanical room in the cellar and elevator room on the roof. The old building needed to install HVAC System for proper heating and cooling. NYBSC engineering team designed the VRF System. NYBSC presented the energy master plan to school board. Their energy measures are lighting upgrade, boilers replacement, solar PV installation & VRF installation. NYBSC technical team also helping the school to fix the both stairs heat by reconfigure the F&T traps as beyond their scope.



Figure: VRF Condensing unit (South)



Figure: Indoor Unit

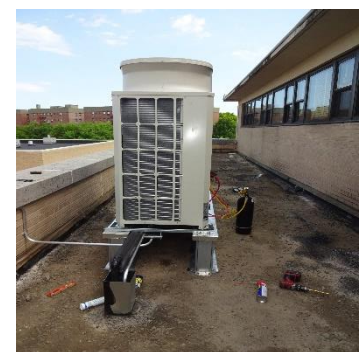


Figure: VRF Condensing Unit (North)