



PROJECT INFORMATION

Building Type: Single Family Home
Year Built: 1935
Floors: 2 + basement
Square Feet: 2,181 ft²
Bedrooms: 3
Bathrooms: 4
Homeowners: Joe and Donna Marchese, Manhasset, NY
HVAC Contractor: T.F. O'Brien, New Hyde Park, NY
HVAC Distributor: SW Anderson, Farmingdale, NY
Daikin Sales Representative(s): Edward Ruff, Area Manager
Richard Gibson, Area Manager

CHALLENGE

To maintain the historical aesthetics of the Marchese's beautiful 1935 Tudor home with a minimally invasive HVAC solution that replaced aged, noisy, and uncomfortable through-the-wall air conditioning units, while enhancing indoor comfort. Provide a state-of-the-art system that would reliably maintain comfort and is easy to operate. Finally, the ability to fully integrate the existing boiler system as a secondary backup heat source.

SOLUTION

Daikin Comfort Pro dealer T.F. O'Brien considered several options for the Marchese home. Due to varying requests of the homeowners (four-season patio, basement, etc.), a Daikin VRV LIFE™ system was the obvious choice. The VRV LIFE system provided the integrated solution of ducted and ductless zones, minimal installation complexity, and the enhanced indoor environment Joe and Donna Marchese were hoping for.

About 20 miles outside of Manhattan sits the quaint town of Manhasset. There is no question why Joe and Donna Marchese fell in love with the area and their 1935 Tudor-style home. Each home is unique, filled with character and charm, and surrounded by picturesque scenery. For homes built in 1935, heating equipment was very different, and cooling equipment didn't exist as it is today. Large numbers of homes built before the 1950's were designed with no consideration for air conditioning. To satisfy the needs of a modern lifestyle, Joe and Donna were determined to find the perfect solution, without expensive structural renovations that would jeopardize their home's authentic design.

Before the new Daikin VRV LIFE™ system was installed, the Marchese home functioned with window-style air conditioner units installed through the walls and a boiler heating system with radiators in several rooms. Smart plugs were later installed on the air conditioning units as a way to turn the units on and off using mobile devices, but Joe and Donna intended this to be a short-term fix. All of the units were 20-30 years old; the oldest being a Daikin unit. A testament to Daikin's quality and engineering, the 30-year-old unit was still running.

An old gas fired boiler in the basement has been no friend to acoustical comfort. "Our grandson's first word was 'heeee,'" Donna explained. "Whenever he was over, and the boiler started up, he would say 'heeee' and get so scared." Over the years, Joe and Donna made various updates to their home and heating and cooling systems. "They've reached their peak," Joe explained. "They're inefficient, very noisy and have worked just okay. It had become very difficult to live with these old units, and it was time to do something about it."





To take their home comfort to the next level, Joe and Donna began looking for new HVAC solutions. The first proposals they received from several contractors left the Marchese's unsatisfied. They felt stuck in a standstill, until someone recommended T.F. O'Brien. "When I first met Joe and Donna, they told me they wanted a grown-up air conditioning system," said Brendan Sihler, In-home Sales Consultant with T.F. O'Brien. "Joe and Donna expressed their two main concerns with me: Number one, aesthetics. This is a beautiful, old home and they wanted to preserve its charm. They no longer wanted to see through-the-wall-units and did not want any reconstruction that would diminish their home's architecture. Number two was comfort and reliability. They wanted to know that their new system was going to work properly and easily without any issues."

T.F. O'Brien was committed to finding the perfect solution for the Marchese family. The other systems proposed had been traditional ducted unitary systems. Although this would have met some of the homeowners' goals, it still posed limitations with a house this old, meaning a lot of reconstruction. T.F. O'Brien offered an alternate solution to that of a traditional ducted system. This not only included the first and second floors originally targeted, but would also include conditioning their basement and four-season patio – all from a single outdoor condensing unit. "When we did the initial consultation, Joe and Donna weren't thinking or even dreaming of

including their basement or four-season patio," said Brendan Sihler. "Their eyes immediately lit up when they heard this option. Since they already had the 30-year-old *Daikin* unit in their bedroom, they were familiar and confident with the *Daikin* brand."

The *VRV LIFE* solution has provided the Marchese home with four independently controllable zones (upstairs, main level, four-season patio, and their basement office), all from just one outdoor *VRV* heat pump unit connected to four indoor fan coils, each controlled independently with a *Daikin* wall-mounted *Navigation™* Controller. The home's first and second floors are conditioned with two *DC™* ducted concealed units installed in the attic, with ductwork easily going to the second-floor rooms. Getting to the first floor with ductwork was more challenging. Duct chases were creatively added inside closets on the second floor to run ductwork to the first floor. Wall-mounted ductless fan coils were used in the basement office and in the all-season patio, requiring minimal structural alterations to run the small-diameter copper line sets from the outdoor unit to each indoor fan coil.

The existing boiler heating system was still in good condition, so they chose to keep it as a backup heat source and integrate it with the *Daikin VRV LIFE* heat pump system. With the integration, the *VRV LIFE* system will have the ability to operate in heating mode and switch over to the boiler if needed.

Whether cooling or heating, the *VRV LIFE* heat pump system – utilizing inverter technology – allows their system to variably ramp up or down as needed to provide heating or cooling to the individual zones, minimizing energy usage. With its small footprint, the new *VRV LIFE* outdoor unit required minimal installation space and low operational sound levels.

Since the installation, Joe Marchese has updated us on their home's new level of comfort. "Yesterday was bright sunshine and mid-to-upper 80's, and the house kept an even cool temperature throughout," Joe said. "It's taken more of an adjustment for Donna and me to just enjoy the temperature control without having to manage it room by room, hour by hour. The operation is totally non-intrusive, just as anyone would hope. I still marvel at how quiet it is, inside and out."



DAIKIN EQUIPMENT		
1	RXSQ	5-Ton VRV LIFE™ Heat Pump
2	FXMQ	Ceiling Mounted Ducted Units
2	FXAQ	Wall Mounted Units
4	BRC	Navigation™ Remote Controller

SCAN THE QR CODE OR VISIT
<http://bit.ly/LongIsland-Video>
 TO WATCH THE COMFORT CLIP



TO LEARN MORE ABOUT THE DAIKIN VRV LIFE™ SYSTEM, CONTACT YOUR LOCAL DEALER OR MANUFACTURER'S REPRESENTATIVE.

ADDITIONAL INFORMATION:

Before purchasing this appliance, read important information about its estimated annual energy consumption, yearly operating cost, or energy efficiency rating that is available from your retailer. Actual savings and costs will vary. Cost and savings statements are applicable solely to the installation indicated. For additional information please contact the installing contractor, distributor or factory representatives.

Daikin, VRV, and their designs are trademarks owned by Daikin.