

5 Read Avenue, Rye NY

In 2018, Sunrise completed the installation of a state-of-the-art heating and cooling system for a new construction, 7,500 square foot home in Rye, NY. Sunrise installed ten zones of heating/cooling plus an additional mechanical heating zone with a domestic hot water storage tank on priority controls. The boiler was high efficient with outdoor reset, meaning it only produces the BTUs needed and controls are set for optimum comfort and efficiency resulting in at least 30% energy savings on electric and gas.

A unique element of the home's construction was a basement basketball court/gym with 24' high ceilings. Sunrise installed two hi-wall mounted Carrier VRF ductless units to allow heating and cooling of the gym plus a standalone ERV (Energy Recovery Ventilator) ducted system to allow plenty of conditioned fresh air and air exchanges in and out of the gym.

Another project innovation was required to bring heating and cooling to the first floor guest bedroom and adjacent mudroom. Structural restriction prevented ducting from reaching this area and this area wasn't able to be on its own zone. The solution, similar to the gym, was to install a system derived from the ductless VRF family of modern HVAC equipment. The general contractor allowed a 10' ceiling in the guest bedroom closet to be lowered by 2' to allow a concealed ducted heating/cooling fan coil to be installed and ducted to the bedroom and mudroom.

In addition to this solution's success was another benefit – the ductless VRF products have outdoor heat pumps with multiple ports and so we were able to give the exercise room in the basement its own zone with a ductless heat pump. Sunrise and the general contractor then decided to add a concealed ducted VRF unit in a 2nd floor guest bedroom/office. All told, three additional zones/systems were created from one outdoor unit for simultaneous heating and cooling as needed in three different areas/climates of the home.

For added Indoor Air Quality, the house also has whole-house ERV and humidification systems that maintain ideal humidity separately from heating/conditioning.

All HVAC controls are remotely accessible via the homeowner's smartphone or Wifi connected device. These controls also sent alerts via email to Sunrise and the homeowner in the event of any system faults.