

BLUEPRINT

VRV COMFORT AND EFFICIENCY FOR A CUSTOM HOME HOUSTON, TEXAS



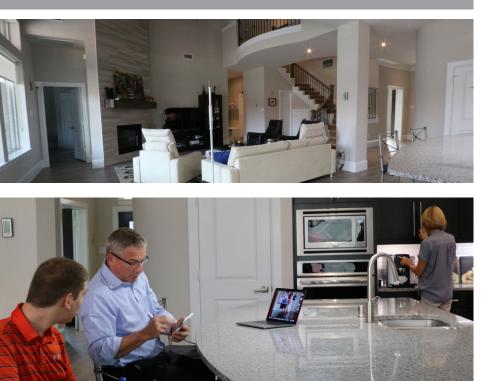
CHALLENGE

Find a dedicated home builder to meet their custom design specifications:

- Providing their disabled son with the ability to maneuver around the home with confidence, control, and comfort
- Individually control comfort in separate rooms
- Increase the energy efficiency and lower monthly energy costs as compared to their last home

SOLUTION

Daikin's $VRV LIFE^{TM}$ system was selected to enhance comfort level, increase the home's energy efficiency, provide zoned control, and offer quick response to Houston's temperature changes. Given the high-efficiency heating ability of the VRV LIFE system, there was no need for a gas furnace (though being an option) as is typically specified for homes in this area.



PROJECT INFORMATION

Building Type:	Single Family Home	
Year Built:	2017	
Floors:	2	
Square Feet:	3,476 ft ²	
Bedrooms:	4	
Bathrooms:	3 ½ bath	
Homeowners: Andor* and Andrea Molnar *Andor Molnar is an employee of Daikin North America LLC		

Originally from Canada, Andrea and Andor Molnar now call Houston home. Before the move to Houston, they lived in Austin, Texas and described their home there as inefficient and costly due to its traditional heating and cooling (HVAC) system. They had a traditional central air system with two outdoor units (ODUs); one served the master bedroom and the other served all other rooms in the home. Because of that experience, and their sights on building an efficient home in Houston, their first step was to find an innovative HVAC system that would provide solutions to meet their comfort, control, and efficiency goals. Being familiar with heat pump and inverter technology, Andor decided upon the Daikin VRV LIFE system. Andor and Andrea knew they would need a homebuilder that could accommodate their unique design requirements and goals which included the proper installation of a Daikin VRV LIFE system.

Whether building a home or buying one that is already built, the heating and cooling system plays a role in the options and flexibility in design. Even with all the options homeowners are given, most builders traditionally do not offer an option to choose the HVAC equipment. With the Molnar's custom home, this was also the case - they were not offered an HVAC choice. The builder was not immediately on board with accommodating the request to install an HVAC solution. Homes in the Houston area are equipped with a central air system, with one ODU and one furnace per zone. With some assistance from their local Daikin representatives, Andor and Andrea persuaded their homebuilder to install the Daikin VRV LIFE for them. "One of the things I have found interesting when buying a house, and we've now built two dirt-tofinished homes, Andrea would go out and choose the refrigerator, the dishwasher, the oven, but when it comes to HVAC you don't get a choice. You kind of take for granted that it works and you don't really know what type you're getting," Andor described. "I guess upon



replacement you would be able to choose your own, but it shouldn't keep you from telling your builder what you want," Andrea mentions.

Achieving the goals with a typical residential HVAC system would have required Andor and Andrea to either make compromises to their needs or opt for a less effective solution. Daikin VRV LIFE offered the Molnars a cost-effective solution and the ability to meet all of their HVAC comfort and control needs. Their home now has eight individually controllable zones from a single outdoor unit and two indoor air handler (FXMQ) units. One indoor unit (IDU) serves the first floor and one IDU serves the second floor. Each of the two IDUs is connected to a Daikin Zoning Kit (DZK) which allows each of the IDU air handlers to be ducted and controlled with duct dampers connected to individual zone controllers. The Molnars are now able to change the temperatures, of the spaces separately to match their desired indoor comfort level.



The 8 zones are as follows:

- Master Bedroom
- Travis's Bedroom
- Travis's Study
- Living Room
- Kitchen/Dining Room
- Bedroom #3 (upstairs)
- Bedroom #4 (upstairs)
- Media Room (upstairs)

Then the garage came into question. The Molnars decided it would be beneficial to heat and cool their garage as well. Knowing they could increase their use and comfort in this space, especially in the Houston summer months, they decided to add a Daikin 19 series system. The 19 series system includes a single outdoor heat pump unit (RX18NM) connected to a single indoor wall-mounted unit (FTX18NM). This additional Daikin 19 series system has allowed the Molnar family to separately manage the temperature in their garage whenever needed. "It's very neat

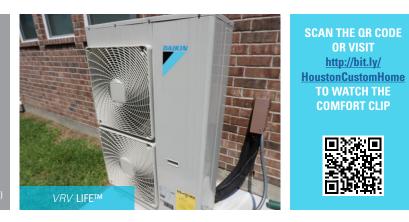


looking; you don't even know it's there. It cools the garage quickly and you don't need to leave it running," Andrea described.

Since moving into their new custom home, the Molnar family has experienced the immediate comfort and cost effectiveness for which they had hoped. In addition, Andor, Andrea, and Travis have also been amazed at how quiet and user-friendly the *VRV* system has been. When asked why he likes the Daikin *VRV* system, their son, Travis said "It's a pretty self-explanatory system, so I really like that. I feel great because it's something I can do on my own and don't have to rely on anyone else."

DAIKIN EQUIPMENT

	RXSQ	VRV LIFE™ (5-Ton)
	FXMQ	Ceiling Ducted Units
	KHRP	Refnet Branch Piping Kit
	DZK	Daikin Zoning Kits (DZK)
	DZK(MTS-3)	DZK Wall Controllers
	DZK(ZTS-3)	DZK Wall Controllers
	RX18NM	19 Series Heat Pump (1.5-Ton)
	FTX18NM	19 Series Wall-Mounted Heat Pump
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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.

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