



MULTI-FAMILY RESIDENTIAL PROJECT PROFILE

DISCOVERY AT THE REALM

- LEWISVILLE, TEXAS

CHALLENGE

Discovery at The Realm, a luxury apartment complex located in Lewisville, Texas – a bustling and fast-growing suburb of Dallas – is the first phase of a 5,000-unit project owned and developed by local real estate giant Bright Realty.

The series of three, four-story buildings that make up the new complex would typically call for traditional split HVAC systems with condensing units on the roof of each building. However, Bright Realty wanted a more efficient and cost-effective way to cool and heat the buildings in the North Texas temperatures that can span over a 100-degree range.



CRITERIA

First and foremost, Discovery at The Realm wanted an HVAC system that was capable of keeping all the residents comfortable – whether the temperature dropped to 10°F in January or soared to 100°F in mid-August. Bright Realty also wanted a system that could deliver comfort with maximum efficiency so they could pass along those energy savings to their residents. Lastly, Bright Realty was looking for an HVAC system that would complement the premium facility. This meant that the new system needed to be unobtrusive, not simply in its aesthetics, but in its operation both inside and out so as to not disturb the indoor/outdoor lifestyle many Texans enjoy.

SOLUTION

Bright Realty began vetting various solutions and arrived at a VRF (Variable Refrigerant Flow) system from LG Air Conditioning Technologies through Dallas-

based HVAC experts Texas Air Systems. Working together, Bright Realty uncovered the numerous benefits that LG’s best-in-class Multi V VRF systems offer, meeting and exceeding expectations for the project. The solution featured 672 tons of Multi V VRF with LG vertical air handling units (VAHU) in the indoor spaces.

The Multi V was chosen for its superior efficiency and design flexibility to deliver on the needs of the project. Performing in ambient temperatures up to 122°F in cooling and down to -13°F in heating, the Multi V system could easily and continuously deliver on the comfort needs of the complex throughout the year in Texas.

One of the other distinct advantages of the LG VRF system was the heat recovery option. Rather than having a single condensing unit managing a single residence, the LG VRF system has multiple residences per condensing unit enabling the system to

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**- CHRIS BRIGHT,
CEO, BRIGHT REALTY**

balance the energy demands across all the units in the circuit to optimize energy consumption – contributing to lower energy bills for tenants.

Within the residences, LG vertical air handling units were selected to maintain a



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- RUSTY VAUGHN,
VICE PRESIDENT,
TEXAS AIR SYSTEMS

clear, unobtrusive aesthetic. The VAHUs were installed in a maintenance closet of each living unit and perform with extremely silent operation, up to 50 dBA, making the system not only visually inconspicuous but

operationally as well. The indoor units were coupled with the LG Smart HVAC controllers that were then integrated into a tenant billing system that allowed Bright Realty to accurately bill for each unit’s energy usage.

Lastly, the design flexibility of the LG VRF system supported the premium design of the complex. With the ability to use extra-long pipe lengths, the outdoor units were tucked away in the parking garage of each four-story building. By concealing the units in the parking structure, the rooftops and other outdoor areas were freed up to serve as additional recreational spaces for residents and the units themselves did not detract from the property’s award-winning green spaces.

RESULTS

Once installation was complete, the system performance exceeded expectations, according to Bright Realty. Further proving the success, Bright Realty was so pleased

with the installation and system performance, they plan to install LG VRF systems in the next phase of the project.

“LG’s VRF system has delivered numerous benefits such as quieter operation, increased efficiency and ability to blend seamlessly within the beautiful backdrop of our grounds,” said Chris Bright, CEO of Bright Realty. “Additionally, the tenant response has been overwhelmingly positive with many reporting barely noticing their HVAC systems, as well as seeing the lowest energy bills in their apartment-dwelling life.”

“Positive feedback from Bright Realty and the residents shows that LG VRF technology exceeded our project’s goals of comfort, low-noise, aesthetics and efficiency. All the things that have made this property so successful today will be carried forth in phase two with LG VRF, too,” said Rusty Vaughn, vice president, Texas Air Systems.