



Kennett Square,
Pennsylvania

THE MARKET AT LIBERTY PLACE

CHALLENGE

To select a system both efficient and diverse enough to meet any vendor's needs

SOLUTION

Mitsubishi Electric VRF zoning allowed the market to attract diverse tenants and happy customers

RESULT

Reliable, year-round comfort for patrons to enjoy and seamless system control for the owners



The Market at Liberty Place, Kennett Square, Pennsylvania, is known for its vendors' mouth-watering array of food, playful layout and patio. Visitors bring their food to the patio, which features glass garage doors and a concrete floor. The patio is open year-round. In the middle of winter it's not uncommon to see guests kick off their shoes and press their icy toes against the floor. The barefoot visitors are an odd but understandable sight: While it's freezing cold outside, the patio floor stays amazingly warm. That warmth is possible because of the market's cooling and heating system: Variable Refrigerant Flow (VRF) zoning technology from Mitsubishi Electric.

In 2010, LGB Properties, LLC (LGB), Kennett Square, purchased a three-story, 31,000- square-foot office building that would become The Market at Liberty Place. LGB gutted and rebuilt the space to feature the market on the main floor and offices above and below. The market would have space for eight or nine tenants (vendors). Leon Martin, vice president, Clark, Inc. (Clark), Paradise, Pennsylvania, and designer of the HVAC system, said LGB "didn't know who the tenants would be or what their products would be, so they needed a versatile system." An ice cream vendor's HVAC needs differ from a pizza vendor's, likewise a fresh seafood vendor's needs differ from a coffee shop's.

Larry Bosley, president and CEO, LGB, noted the space's general challenges: "The market is not an easy place to work in. It's 10,000 square feet of open space. The ceiling is 14 feet high. We also wanted a patio that would be heated and cooled. We needed to have HVAC that would move a lot of air."

To meet those needs, Martin designed a VRF zoning system that would bring in fresh air and move it across the market in an energy-efficient way. "The design reclaims the heat from the building's west side, where the solar load is and where the ovens and grills are, and transfers it to cooler areas through three fan coils," said Martin. That reclaimed heat is what warms the patio's concrete slab in the winter. In the summer, the same process keeps the patio cool.

Selecting a Mitsubishi Electric system was an easy choice. Martin said, "We've worked with Mitsubishi Electric for about seven years now. They

give very good results. They're very dependable." He added, "It was a very easy installation and it's been good since. We've just had no problems with it – no issues with maintenance, repairs or space temperatures."

Bosley is pleased, as well. "As far as I'm concerned, [the system] was worth every dime because of the functionality and comfort level. We survey people coming into the market and they say it's comfortable. On a 100-degree, humid day or a cold day, with the door opening and closing, it's nice in there," he said.

The system's quiet operation contributes to that comfort. "The indoor units are so quiet you can't hear them operating," said Martin. Bosley added, "If I go up to the roof to talk to someone, I can stand right next to the outdoor unit and hear well."

Bosley also appreciates the ability to control the system not just from the main computer in the market,

but from his cell phone or laptop. "If heating/cooling is an issue in the market and I don't happen to be there and my son doesn't happen to be there, we can regulate the system from our phones."

Between the system's year-round occupant comfort, quiet operation and seamless control, it's easy to understand why Bosley said, "It's a dynamite system." The icing on the cake is the impressively low energy consumption. While there's no pre-installation energy data to serve as a comparison, energy consumption was predicted prior to the installation. Bosley said, "Those numbers looked good, but we were pleasantly surprised that the consumption was even less than we had anticipated."

PROJECT TEAM

The Market at Liberty Place:

LGB Properties, LLC, Kennett Square, Pennsylvania

HVAC Contractor:

Clark, Inc., Paradise, Pennsylvania

EQUIPMENT

- ▶ (9) PLFY 4-Way Ceiling-recessed Cassette Indoor Units
- ▶ (3) PKFY Wall-mounted Indoor Units
- ▶ (2) PURY R2-Series Outdoor Units
- ▶ (2) CMB BC Controllers
- ▶ (1) LGH Lossnay ERV, 1200 CFM