



Macon, Georgia

## LOFTS AT EMPIRE YARDS

### CHALLENGE

Finding a total HVAC solution for a former warehouse space renovated into apartments

### SOLUTION

Zoned Comfort Solutions® from Mitsubishi Electric Trane HVAC US (METUS)

### RESULT

Energy-efficient, quiet and user-friendly heating and cooling for 28, loft-style apartments



When developer Brooks Patterson, owner of Prodigy Woodworks, first came across a 120-year-old former ice and coal warehouse in Macon, Georgia, he saw the opportunity for transformation. Embodying the phrase “beauty is in the eye of the beholder,” Patterson envisioned Lofts at Empire Yard as a modern, multifamily property housing 28 units.

“The neighborhood was in rough shape but had these beautiful buildings needing revitalization after 50 years of neglect,” said Patterson. “We decided to buy all of the property along the street to spaces scattered throughout and give turn into multifamily units with some retail the neighborhood new life. I was drawn to the Empire Coal Company building in particular for its bones and history. It was built in 1897 and a lot of the architectural elements from that period have become popular again in industrial loft apartments. These elements include beautiful, large windows, high ceilings and solid structural beams.”

Patterson set out to renovate the building’s 65,000 square feet of space into loft-style apartments, adding amenities such as a pool and rooftop patios, while thoughtfully incorporating its historical design elements. But the high ceilings that Patterson knew would be aesthetically appealing to future tenants presented challenges when it came to choosing mechanical systems.

“A lot of people remodel older buildings and keep the existing ductwork, but I’m not a fan of that look,” said Patterson. “I chose ductless systems because they can offer performance, quiet operation and efficiency in a nice, sleek package. I wanted my tenants to enjoy those benefits and the low utility bills that came with them. My next step was finding the right manufacturer.”

Luckily, Zoned Comfort Solutions® from Mitsubishi Electric Trane HVAC US (METUS) offered the right solution.

## WHY METUS?

Patterson didn't have much professional experience with METUS systems but had recently installed a split-ductless system in his own home, which is similar in style to the Lofts apartments, and had been happy with the performance. What sealed the deal on ductless however, was the glowing recommendation from mechanical contractor Clay Etheridge, owner, Etheridge Heating and Air in nearby Forsyth, Georgia.

"We wanted the best systems for this project, so we went back and revised our budget to put Mitsubishi Electric units in the Lofts," said Patterson. "The upfront mechanical costs may have been higher than I'd initially planned, but Clay's commitment to standing behind the brand gave me confidence that I'd see a return on my investment quickly. As a matter of fact, my tenants have such low energy bills that the units are already paying for themselves."

Etheridge and his team recommended a combination of ceiling cassettes and wall-mounted indoor units for the project. Most of the apartments feature Mitsubishi [Electric EZ FIT® Recessed Ceiling Cassettes](#) complemented by [Designer Series Wall-Mounted Indoor Units](#).

"The ceiling cassettes were a great choice for the Lofts' ceilings," said Etheridge. "They fit nicely between the old building's standard-width ceiling joists so there was no need for additional construction efforts. We also appreciated their sizing because we could place them nearly anywhere, including the corner of a room and just adjust airflow to blow in the most desirable direction. We also found that they hid wiring well, giving us a really clean-looking end result."

Another appeal? The ceiling cassettes can be serviced from below, automatically simplifying any maintenance requests that might come in.



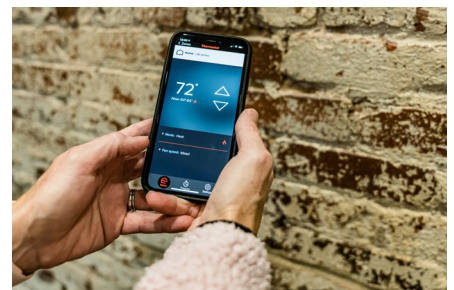
## SATISFIED TENANTS

Regarding maintenance, there've been minimal requests for service. According to Patterson, tenants have shared that the systems perform well and are easy to operate.

"In this type of adaptive reuse project, where we take a very old building and transform it, a lot of people expect that the mechanical systems won't be up to snuff," said Patterson. "Even if we've completely gutted the place and started from scratch, they see the old industrial footprint and assume they'll be dealing with boilers and radiators. It's been fun to see tenants pleasantly surprised by the Mitsubishi Electric system – how well it performs, how quiet it is and how easy it is to control."

The easy operation is thanks to use of kumo cloud® wireless control software. Zoned Comfort Solutions systems can utilize kumo cloud, giving tenants user-friendly control over their apartments' temperature through a wall-mounted tablet or remote app. All units can be controlled as a group for universal mode operation, or independently for temperature settings. Tenants benefit from even, comfortable temperatures and reliable conditioning.

"We've received great feedback on how quickly the units heat the building in the winter and cool it on



warm days," said Etheridge. "The tenants and building management have expressed they are happy with performance and speed."

Tenants realize another significant benefit of this performance: lower utility bills. Patterson is able to track the efficiency of the systems by monitoring each apartment's energy bills. So far, he likes what he sees.

"Sometimes the monthly bills are as



low as \$45 per month in the winter,” said Patterson. “Georgia isn’t the coldest place in the world, but we see temperatures in the high 20s and low 30s that definitely make tenants want to have their heat running.”

## COMFORT INSIDE AND OUT

For Patterson, the right HVAC solution would be low impact for his tenants from aesthetic,

maintenance and operational sound level standpoints. He wanted to make sure that his confidence in the indoor comfort levels also translated to outdoor amenities for his tenants.

The apartments have access to private rooftop cupolas and walkout

patios. While this feature has great appeal to prospective tenants, Patterson was initially concerned about noise levels from the system’s outdoor units installed there. Those concerns were quickly squashed. With the units’ whisper quiet operation, they’re barely audible at 58 dB(A).

Zoned Comfort Solutions provided the answer to Patterson’s needs. Through use of METUS systems, tenants at Lofts at Empire Yard enjoy year-round comfort, low utility costs, convenient temperature control inside their apartments and a relaxing environment outside.

## PROJECT TEAM

### Builder:

Prodigy Woodworks, Macon, Georgia

### Mechanical Contractor:

Etheridge Heating & Air Conditioning, Forsyth, Georgia

## EQUIPMENT

### Lofts Phase 1:

- ▶ (12) M-Series Heat Pump Outdoor Units
- ▶ (3) SUZ Universal Heat Pump Outdoor Units
- ▶ (30) EZ FIT® Recessed Ceiling Cassette Units
- ▶ (5) SLZ-KF Four-Way Recessed Ceiling Cassette Units

### Lofts Phase 2:

- ▶ (8) M-Series Heat Pump Outdoor Units
- ▶ (1) SUZ Universal Heat Pump Outdoor Unit
- ▶ (20) MSZ Wall-Mounted Indoor Units
- ▶ (2) EZ FIT® Recessed Ceiling Cassettes Units
- ▶ (3) SLZ-KF Four-Way Recessed Ceiling Cassette Units
- ▶ kumo cloud® app and web service