

# GEATAIN ENGINEERING

## CASE STUDY- 315 East 106<sup>th</sup> Street



### BACKGROUND

315 East 106<sup>th</sup> Street, at the Franklin Plaza Apartments, is a 20-story, 124,000-square-foot co-op residential building located in Manhattan, New York. Constructed in 1961, the building contains 117 residential units. The building receives heat and DHW from the boiler room located at 2086 2nd Ave. These three low-pressure gas-fired steam boilers are controlled by a Multi-MOD Platinum Heat-Timer. For ventilation, the building has two exhaust fans on the roof that connect to exhaust grilles in the hallways and the bathrooms, the boiler room has an exhaust fan and louvers, and the elevator room has a gravity ventilator.

### HOW GEATAIN ENGINEERING HELPED

- Provided exhaustive evaluation of property infrastructure to reveal hidden savings opportunities.
- Quantified thermal capacity of building envelope to retain more winter heat and summer air conditioning.
- Streamlined the number of parameters tracked on the BMS system to focus on core operational drivers.

### BENEFITS

- Tracking equipment records revealed trending equipment challenges.
- Focusing on controls revealed obscure savings opportunities.



### CHALLENGES

- Several hundred feet of condensate piping lack insulation.
- High DHW temperatures.
- Lack of light dimming capability.

### SOLUTIONS

- Bi-Level Lighting.
- Pipe Insulation.
- DHW Temperature.
- Envelope.
- Heat Pumps.
- Plug Outlet Controls.
- Smart Strips.
- Window AC Replacement.
- Unit LEDs.
- Wall Occupancy Sensors.

### FIVE YEAR SAVINGS

\$432,390

\*Savings with returns less than five years over the next five years.

**For more information, email  
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