

# GEATAIN ENGINEERING

## CASE STUDY - 2075 1st Avenue



### BACKGROUND

2075 1<sup>st</sup> Avenue, 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 houses 117 residential units. The boiler room in 2086 2nd Avenue contains three low-pressure gas-fired steam boilers which provide steam for space heating and DHW in this building. These boilers are controlled by a Multi-MOD Platinum Heat-Timer. There is an 1800-gallon DHW tank with a built-in steam-to-HW heat exchanger. This building has two exhaust fans on the roof for ventilation that connect to exhaust grilles in hallways and bathrooms. The boiler room has an exhaust fan and louvers, and the elevator room has a gravity ventilator.

### HOW GEATAIN ENGINEERING HELPED

- Contacted industry professionals and manufacturers to accurately calculate savings projections.
- Analyzed annual operating and maintenance records to reveal several important trends that lead to increased carbon reductions.
- Provided extensive startup, commissioning, and training services to operations staff to ease transition to new equipment.

### BENEFITS

- Implemented boiler controls to allow for reduced cycling times and improved efficiency.
- Identified hidden opportunities for occupants to lower energy costs.



### CHALLENGES

- Insulation around piping in poor condition.
- Manual light switches lack dimming capabilities.
- Excessive energy use by boilers.

### SOLUTIONS

- Smart Strips
- Boiler Controls
- Pipe Insulation
- Bi-Level Lighting
- Heat Pumps
- Wall Occupancy Sensors
- Building Envelope
- Window AC Replacement
- Unit LEDs.

### FIVE YEAR SAVINGS

\$335,825

For more information,  
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