

# GEATAIN ENGINEERING

## CASE STUDY - 2081 2<sup>nd</sup> Avenue



### BACKGROUND

2081 2<sup>nd</sup> Avenue, at the Franklin Plaza Apartments, is a 20-story, 148,758 square foot co-op residential building located in Manhattan, New York. Constructed in 1961, the building contains 117 residential units. The boiler room contains four low-pressure gas-fired steam boilers which provide steam for space heating and DHW. These boilers are controlled by a Multi-MOD Platinum Heat-Timer. The 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

- Identified financial constraints to ensure energy efficiency measures were implemented to meet client budgets.
- Quantified thermal capacity of building envelope through various tests to determine building's specific heat loss.
- Analyzed occupancy schedule to determine the most ideal locations for occupancy sensors.

### BENEFITS

- Advanced controls align comfort levels to changes in occupancy throughout the day.
- Emphasized importance of annual boiler tune-ups to save on significant costs and reduce carbon emissions.



### CHALLENGES

- Lack of insulation on DHW tank.
- Inefficiencies of manual light switches.
- Building equipment lacks sleep modes.

### SOLUTIONS

- Boiler Controls
- Night Setback
- TRV
- Pipe Insulation
- Wall Occupancy Sensors
- Plug Outlet Controls
- Unit LEDs
- Smart Strips
- Heat Pumps

### FIVE YEAR SAVINGS

\$286,550

For more information,  
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