# GEATAIN ENGINEERING

## CASE STUDY- 225 East 106th Street

### BACKGROUND

225 East 106th Street is a 20-story, 147,732-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 four low-pressure gas-fired steam boilers in the boiler room located at 2081 2nd Avenue. The boilers there 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

- By considering climate zone, envelope tightness, building layout, and related considerations, Geatain determined the optimal location and sizing of heat pumps.
- Completed granular analysis into condition of existing electric panels to determine if they could be reused for future electrification.
- Regression analysis helped to uncover hidden envelope savings opportunities.

### BENEFITS

- Simple operations measures revealed impactful savings.
- Tracking equipment records revealed trending equipment challenges.

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SIMPLE LL97 COMPLIANCE
PAID BY OTHERS

### CHALLENGES

- High electrical usage.
- Inefficient heating.
- Little efficiency in DHW.

### SOLUTIONS

- Pipe Insulation.
- De-lamping.
- Heat Pumps.
- Envelope.
- Plug Outlet Controls.
- Night Setback.
- DHW Temperature.
- Unit LEDs.
- Tenant Load Reductions.

### FIVE YEAR SAVINGS

$474,555

**For more information, email tjm@geatain.com**