GEATAIN ENGINEERING
CASE STUDY-1755 UTICA AVENUE

BACKGROUND

The Kings Village, located at 1755 Utica Avenue in Brooklyn, is a seven-story, 190,000 square foot multifamily building. This building was constructed in 1966, with a brick and block exterior façade and has 156 apartment units. 1755 Utica Ave is in the Flatlands, which offers residents a dense urban feel with most residents owning their homes. After years of not updating equipment and technologies it has led to escalating energy consumption. The lighting and temperature controls of the building were inefficient and could be updated to save energy. The hot water provided by existing boilers can be wasteful in the summer months. The building had a lack of insulation due to a variation of single and double paned windows and age of the building.

HOW GEATAIN ENGINEERING HELPED

- Granular electrification analysis led to new insights regarding capital cost savings and shorter construction schedule.
- Determined building envelope tightness with several different tests to determine building specific heat loss.
- Control algorithms offer multiplicative savings opportunities.
- Analyzed building operations to determine precise recommendations to improve occupancy comfort, streamline operations and lower carbon emissions.

BENEFITS

- Through setpoint adjustments and building envelope improvements, significant carbon emissions were saved.
- The implementation of advanced heating controls showcased real-time energy usage and historic trends, aiding in identifying savings opportunities.

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SIMPLE LL97 COMPLIANCE
PAID BY OTHERS

CHALLENGES

- Replacing boilers.
- Existing HVAC nearing end of useful life.
- Single pane windows are causing poor insulation.
- Lack of advanced heating controls.

SOLUTIONS

- Wall/overhead occupancy sensors.
- 5-Ton rooftop heat pumps.
- PoU heaters.
- Advanced heating controls.
- Radiator controls.
- Plug load reduction.
- Building insulation.

LIFECYCLE SAVINGS

$ 1,307,840

For more information, email tjm@geatain.com