

GEATAIN ENGINEERING

CASE STUDY - 2441 Webb Avenue



BACKGROUND

2441 Webb Avenue, at Fordham Oval, is a 130,218 square foot co-op residential building constructed in 1950 and located in the Bronx, New York. Heating and domestic hot water are provided by four low-pressure dual fuel, 400 HP steam boilers from A.L. Eastmond & Sons Inc. and Easco, located in the basement. These four boilers are fueled by #2 fuel oil from a 15,000-gallon oil tank. The tank is controlled by an Oil Tank Monitor MSI Network by Heat-Timer.

HOW GEATAIN ENGINEERING HELPED

- Analyzed occupancy schedule to optimize locations for occupancy sensors to reduce HVAC run-times.
- By considering climate zone, envelope tightness, building layout and related considerations, Geatain determined optimal location and sizing of heat pumps.
- Regression analysis helped to uncover hidden envelope savings opportunities.

BENEFITS

- Provided several alternative paths to comply with LL97-Carbon Emissions law.
- Advanced boiler controls improve performance and align comfort levels to changes in occupancy throughout the day.



CHALLENGES

- Insulation missing on several portions of steam/condensate piping
- Phantom loads even when devices are idle
- Lack of a controlled ventilation system

SOLUTIONS

- Ventilation Schedule
- Pipe Insulation
- Annual Boiler Tuning
- TRV
- Delamping
- Common Area LEDs
- Plug Outlet Controls
- Heat Pumps
- Wall Occupancy Sensors.
- Boiler Control

FIVE YEAR SAVINGS

\$264,030

For more information,
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