

GEATAIN ENGINEERING

CASE STUDY - 1123 Broadway



BACKGROUND

1123 Broadway, also known as The Townsend, is a historic landmark with extensive character and heritage that was built in 1896. It is located next to its equally historic sister building, 1133 Broadway, in the rapidly growing neighborhoods of NoMad and the Flatiron district.

An energy audit was performed after property managers reached out to Geatain about escalating energy consumption. Existing records were examined to understand operations and maintenance practices. It was found that antiquated machinery lacked proper insulation and prevented operators from using automated controls. The building envelope demonstrated a poor thermal seal and could not be easily fixed due to age. Geatain developed several practices and solutions for low-cost savings to work around these limitations.

HOW GEATAIN ENGINEERING HELPED

- Quantified thermal capacity of building envelope to retain more winter heat and summer air conditioning.
- Incorporated automation into new practices to improve equipment efficiency.
- Regression analysis helped to uncover hidden envelope savings opportunities.

BENEFITS

- Operations measures extend equipment useful-life besides saving costs.
- Increased natural ventilation provides considerable fall and spring savings.



CHALLENGES

- Poor infrastructure and insulation condition
- Deteriorated and damaged equipment
- Outdated routines
- Lack of advanced heating controls

SOLUTIONS

- Advanced Heating Controls
- Switch to Natural Gas
- Installed Insulating Jackets
- Variable Frequency Drives
- Installing Reactive Power Devices
- Air Leak Sealing

FIVE YEAR SAVINGS

\$ 223,500

For more information,
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