

GEATAIN ENGINEERING

CASE STUDY-THE LANGHAM HOTEL



BACKGROUND

The modern and attractive Langham Hotel and Residences located at 400 Fifth Avenue is a refined well-maintained hotel in the center of the metropolis that is New York City. Discussions with operators and property managers unveiled the day-to-day occupancy schedule. An extensive and in-depth survey was conducted to understand existing HVAC equipment operations, conditions, and limitations. The building was recently constructed in 2010, indicating that it had very modern equipment with no insulation problems. The occupancy schedule was examined, and it was found that the lighting was on consistently and temperature set points were not being changed even when occupancy levels were low.

HOW GEATAIN ENGINEERING HELPED

- Completed extensive amperage study of common area and unit electric panels for electrification sufficiency.
- Uncovered hidden opportunities by exhaustively interviewing all members of operations staff.
- Control algorithms offer multiplicative savings opportunities.
- Analyzed the affects of a new heat recovery loop system.

BENEFITS

- Owner appreciated in-depth discussion of latent electrification costs.
- Advised ownership of opportunities to delay large outlay of capital while complying with Local Laws.



CHALLENGES

- Recently constructed and has mostly upgraded building equipment.
- Determining measures beyond typical building lighting.

SOLUTIONS

- Guest heating controls.
- Real time energy management system.
- Bi-level stairwell lighting.
- Installing occupancy sensors.
- Plug load reduction.
- Cogeneration.

LIFECYCLE SAVINGS

\$ 2,461,560

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