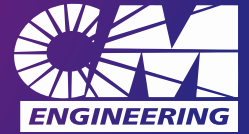


Lincoln Elementary School

Clinton, Illinois



Lincoln Elementary School's heating system was near the end of its usefulness.

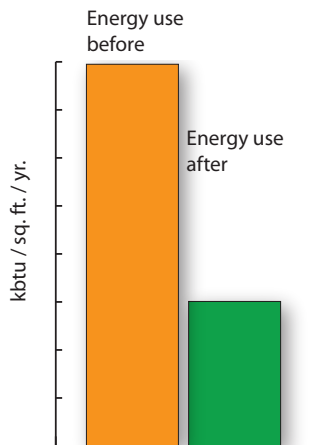
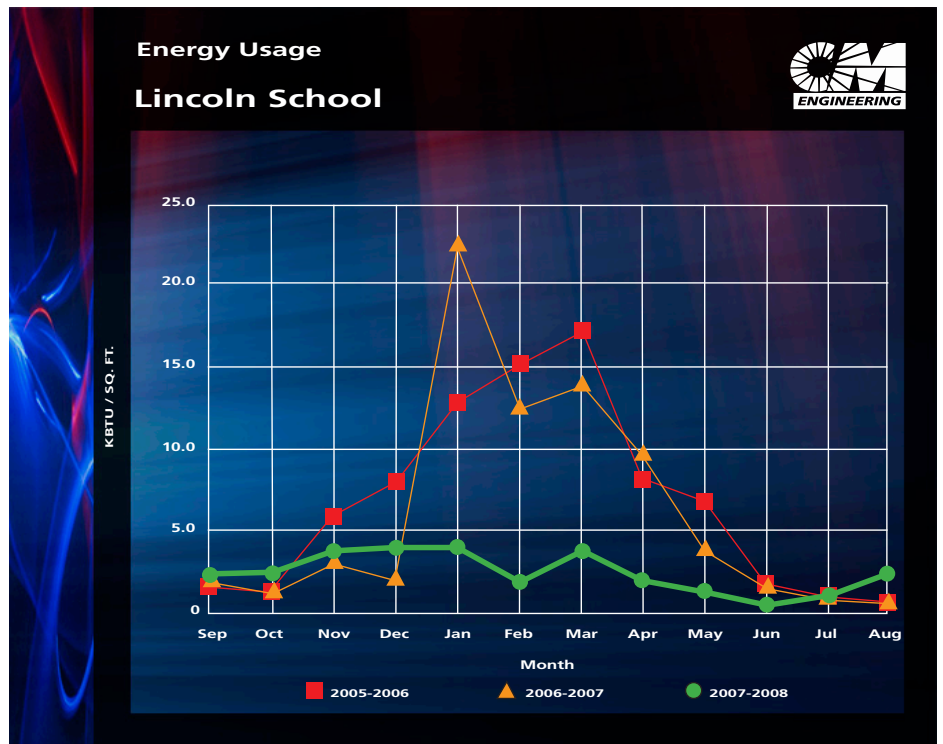
Heating energy consumption soared in winter months. Interior spaces were uncomfortably warm in the spring, summer and early autumn months.

During the summer break after the 2006-2007 school year, we replaced the aging system with our One-Pipe ground source geothermal exchange heating and cooling system. Air conditioning and individual temperature controls were added.

The results were immediate. Annual energy consumption was drastically reduced.

Retrofit of existing building

- Air conditioning in all rooms
- Ground source geothermal exchange system
- One-Pipe design
- 29,090 square feet
- 19 Classrooms
- Approximately 237 students (2007 - 2008)
- Temperature controls in all rooms
- Installation cost: Less than \$20 / sq. ft.
- Energy usage before retrofit: 79.5 KBTU / sq. ft. / yr.
- Energy usage after retrofit: 30.1 KBTU / sq. ft. / yr.



Energy use before retrofit: 79.5 kbtu / sq. ft. / yr.
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Red and orange tracings show monthly energy consumption for two years prior to our retrofit. Green tracing demonstrates the effectiveness of our One-Pipe ground source geothermal exchange retrofit. (Data source: Clinton CUSD 15, Clinton, Illinois.)