

## Stratham Energy Commission Meeting Minutes

Date: October 14, 2013

Commission members present:

John Dold

James Schlough

Michael Welty

also present:

Robert McAlpine, Stratham Memorial School Head Custodian

This special meeting was held to conduct an energy audit of the Stratham Memorial School. It began at 10:00 am and ended at 12:40 pm. Robert McAlpine gave an extensive tour of the building and provided detailed technical data on the energy consuming systems. These minutes provide an overview of that information.

The school has 35 educational classrooms and numerous special purpose rooms including the cafeteria, gymnasium, music room, and art room. The school is 82,000 square feet and serves a population of about 640 pupils and 130 teachers. It is heated with oil fired hot water using baseboard radiators and heating coils in the make-up air ventilation units. The library, computer room and office areas are air-conditioned.

The school operates from September through June from 7 am to 4 pm. Additional usage is from June through September from 7 am to 3 pm and the gymnasium is used from November through April for an additional 35 hours per week for recreational programs.

The heating is controlled by thermostats throughout the building with a Siemens pneumatic control system. This was updated in 2000 with the addition of a Siemens centralized electronic control system. The ventilation system was modified in 2000 to allow night cooling with outside air.

Lighting was updated in 2006 from T12s to T8s. Most lighting is double ballasted to allow a mix of locally switched, motion sensor or centralized control.

Two modular classrooms attached to the building are heated with propane and are air conditioned. There is a wooden covered ramp to the modular building that can be heated via a hot water radiation system below ramp. Also there is a hot water radiation system underground in the adjacent courtyard (50ø by 50ø) to melt snow and ice in winter.

Exterior lighting is all original high pressure sodium vapor.

Bob McAlpine mentioned that he is trying to get an emergency generator for protection of the heating system during an extended winter power outage. The electrical system has been modified with a transfer switch to accommodate a generator.



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s throughout.

During summer there are 22 dehumidifiers located throughout the building to avoid any possibility of mold or mildew.

A significant improvement for the future would be the availability of natural gas.

Complete data on energy usage will be obtained from the SAU16 office. All of the information will be entered into the Portfolio Manager software the commission is using to benchmark energy usage at town facilities.