

Bay Village Middle School
Summary of 2004 Utility Costs
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To:
Mr. John Cavalier
Bay Village School District
Via fax no. 440-617-7301

From:
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The utility costs for the new Bay Village Middle School (BVMS) were monitored during the 2004 calendar year. The utility costs for a middle/intermediate school of similar size, located in western Cuyahoga County, were also obtained. The middle/intermediate school was constructed in the late 1990's and uses a conventional gas/electric HVAC system.

The size of the BVMS is approximately 130,000 s.f. The size of the comparison school is approximately 100,000 s.f. The costs are broken down into dollars per square foot for comparison purposes. This comparison does not take into account the differences in building use, such as off-hours operation or summer use. Therefore, the results are to be taken as conceptual in nature.

The results of the comparison are as follows:

Total 2004 utility costs for BVMS = \$1.76 / square foot.

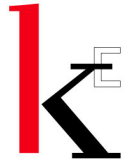
Total 2004 utility costs for comparison school = \$3.35 / square foot.

Probable 2004 utility cost savings = \$1.59 / square foot.

Probable total 2004 utility cost savings projected over 130,000 s.f. = \$206,000.

The probable additional construction cost for the geothermal HVAC system compared to a conventional HVAC system was estimated by the construction manager to be approximately \$600,000. The Life Cycle Cost analysis performed in April 2001 projected a payback period of approximately 5.5 years for the geothermal system.

Based on the utility cost analysis above, the payback period is approximately 3 years. Even considering probable differences in the operation of the two school buildings, the payback period is will be significantly less than the projected payback from the 2001 analysis.



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