

**Mount Olive Public Library
Director's Report to the Board
Trustee Meeting – January 12th, 2010**

General

Website updates

Mr. Gilbert and I have been working on the library website to make some of the popular databases more accessible. On the Online Databases homepage we will display direct links to 10 popular databases including NY Times, Daily Record, Newsweek, Business Week, Consumer Reports, Parenting, and others. Mr. Gilbert has begun working on this and will need to contact the host to create the direct links.

RedBox

I recently had the pleasure of speaking with Peter Rajcevic from the Plainfield Public Library regarding their RedBox. Plainfield was contacted by RedBox to be part of a 6 month trial study back in June. Mr. Rajcevic has indicated to me that the RedBox has been very successful having eliminated the need to purchase new release DVDs. RedBox provides Plainfield with quarterly payments and they are working out the detail of purchasing the DVDs after they have had their run.

Their RedBox is located externally which offers patrons 24/7 access. Plainfield receives monthly updates from RedBox detailing rentals indicating that the system is used round the clock.

Kuerig Free Coffee

We recently had the pleasure of receiving four free boxes of K-cups from Kuerig after their regional representative saw our press release in the newspaper. As a token of their appreciation for our mentioning of their Kuerig system we received a box of French Vanilla, English Breakfast Tea, Espresso Blend, & Pumpkin Spice Coffee. The new selections have been made available and we are happy to see the power of public relations at work!

Mt Olive School District's in-service

The Mt Olive School district's next in-service day is February 16th. I have been communicating with Helen Robbins who has been working to set a meeting between our Librarians and the district's Media Specialist. We are tentatively scheduled to meet in the afternoon on the 16th to discuss: Library card drive; Lendable collections sent to the schools in support of curriculum; Inter loan of books directly to schools or students; Coordination of summer reading. I am looking forward to this meeting in hopes to further collaboration between the school system and library.

Personnel

I am very happy to announce the Katy Ratti has returned from Maternity leave; Mrs. Ratti was missed while away. Ms. Cornetto has returned to her original hours and Mrs. Hodd's temporary position has expired. We received a great deal of positive feedback regarding Mrs. Hodd and I would very much like to keep her as an on call librarian for those rare instances where we are short staffed. I have spoken with Mrs. Hodd and she has expressed interested in this arrangement as she thoroughly enjoyed her time here at MOPL.

We welcomed a new part time volunteer on Wednesday, January 6th. Mr. Gustavo Delgallego will be working with us on Mondays, Wednesdays, and Fridays from 9am – 2pm for a total of 15 hours each week. Mr. Delgallego will be assisting with interlibrary loan as well as various duties in Technical Services. Mr. Delgallego is a welcome addition to the library.

Programming

Unfortunately due to the severe weather on Saturday, December 19th the Holiday Extravaganza was cancelled. Both our storyteller and the City Winds Trio cancelled as they were unable to get to the library. Both programs are being rescheduled with the hopes the City Winds Trio is available to perform classical romantic music on or around Valentine's Day.

Buildings and Grounds

Energy Audit

I have received our energy audit report from Steven Winter Associates, Inc. for the audit performed on September 22nd and October 19th of 2009. The report is very comprehensive having reviewed our energy consumption, facility, and equipment. SWA has developed energy benchmarks, made recommendations for improved efficiencies, and even makes recommendations for energy purchasing strategies.

The report indicates that between September 2008 and August 2009 the library consumed 296,000 kWh or \$50,278 worth of electricity and 18,599 therms or \$19,427 worth of natural gas for a combined expense of \$69,705. These figures indicate that our annual electric utility cost is \$5,878 higher than the average estimated NJ commercial utility rate. SWA has entered this information into the EPA's Energy Star Portfolio Manager Energy benchmarking system. Moving forward the library will be able to enter data and continue to monitor our energy usage.

Based on the assessment SWA has made recommendations separated into three categories:

Capital Improvement Measures

Operations and Maintenance

Energy Conservation Measures – Upgrades with associated energy savings

Attached is the Executive Summary from the report.

Based on my review of the report it is my opinion that we should begin focusing on the items listed under Capital Improvement Measures and Operations and Maintenance. Many of these recommendations can be managed in-house and should show some savings by the end of 2010. This includes:

Balancing of the HVAC system for uniform and steady temperature control

Insulating dead space above the ceiling tiles

Maintain roofs – in progress

Repair/replace weather stripping and caulk

Repair/seal wall cracks and penetration

Implement power saving mode on computers

Select NEMA premium motors when repairing HVAC system

In the third section of the recommendations, Energy Conservation Measures – Upgrades with associated energy savings, requires further investigation before any decision is made as to the installation of a wind and or solar panel system. SWA has recommended six Energy Conservation measures that included:

Replace incandescent light bulbs with CFL – in process

Replace exterior parking lot lights with pulse start Metal Halide lamps – some incentives attached

Installation of 7.5 kW wind rooftop system – Estimated cost of \$60,000 with \$50,000 in potential incentives – 25 year life expectancy with estimated lifetime savings of \$47,000

Installation of 50 kW PV rooftop system (solar panels) – Estimated cost \$375,000 with \$50,000 in incentives. Lifetime savings of \$752,989 over 25 years.

Occupancy sensors in restrooms, closets, and infrequently used rooms

Retro commissioning of library

Tim Kelly and I have been discussing the report and will make our recommendations soon.

Insulating the Picture Book area

Carlos Villar and I met to discuss the difficulty we are having keeping the Children's Picture Book area warm. The decorative soffit in the Picture Book area has an opening to the drop ceiling that creates a gap where we are losing conditioned air (see Fig. A). The Picture Book area is warmer in the summer and colder in the winter than surrounding areas. We believe the gap is the cause for the problem as the air coming out of the vents is being lost to the dead space (see Fig. B). Mr. Villar and I felt that by encapsulating the air, as in the Periodicals Room (see Fig. C) we could direct the warm air to where it is needed.

Mr. Villar has begun installing insulation board as a temporary stop gap measure (see Fig. D). There has been an immediate improvement even with only half the insulation board in place and I'm pleased to say that the Picture Book area is much warmer than before. Mr. Villar has indicated that we have paint to match the color of the wall and once the insulation board is in place I will ask that it be painted to match.

Slip and fall

On Tuesday, January 5th I was informed that a toddler had slipped and fallen in parking lot having hit his head on the ground. I immediately contacted the young man's mother to find out the details of the accident. Thankfully the young man is doing fine and we have done everything possible to take care of the remaining snow and ice in the parking lot.

The incident occurred in the parking lot to the immediate right of the library's entrance. This area is prone to drifting snow making it very difficult to keep clear. I had the area cleared; ice melt reapplied, and I called in DPW to clear out the remaining snow. There are a few remaining parking spots we are unable to get completely free of snow and ice therefore I have had these spots blocked off to prevent further injury. I am very concerned about the safety of our patrons and I continue to take a proactive approach to keep the parking lot and sidewalks free from snow and ice.

2010 Budget

I have put together a preliminary 2010 working budget reflecting our current budget of \$1.25 million and our estimated income from 2009 of \$63,072.99. This budget is only a preliminary working document until such time as I can meet with the finance committee to draft a final budget for presentation to the Board. I will begin finalizing my recommendation to the committee during the week of January 11th with hopes to meet/discuss during the week of the 18th.



Fig. A



Fig. B



Fig. C



Fig. D

EXECUTIVE SUMMARY – From Steven Winter Associates

The energy audit performed by Steven Winter Associates (SWA) encompasses the Mt. Olive Public Library located at 202 Flanders-Drakestown Road, Flanders, NJ 07836. The Mt. Olive Public Library is a single-story building with basement comprising of a total floor area of 27,400 square feet. The original structure was built in 2004, without any major renovations or additions since then.

Based on the field visits performed by the SWA staff on September 22nd and October 19th and the results of a comprehensive energy analysis, this report describes the site's current conditions and recommendations for improvements. Suggestions for measures related to energy conservation and improved comfort are provided in the scope of work. Energy and resource savings are estimated for each measure that results in a reduction of heating, cooling, and electric usage.

From September 2008 and August 2009 the Mt. Olive Public Library consumed 296,000 kWh or \$50,278 worth of electricity at an approximate rate of \$0.170/kWh and 18,599 therms or \$19,427 worth of natural gas at an approximate rate of \$1.045/therm. The joint energy consumption for the building, including both electricity and natural gas, was 2,870 MMBtu of energy that cost a total of \$69,705.

SWA has entered energy information about the Mt. Olive Public Library building in the U.S. Environmental Protection Agency's (EPA) *Energy Star Portfolio Manager* Energy benchmarking system. This public assembly / Library facility is comprised of non-eligible (Other) space type. SWA encourages the Township of Mount Olive to continue entering utility data in *Energy Star Portfolio Manager* in order to track weather normalized source energy use over time. EPA is continually working to expand the available space types.

The Site Energy Use Intensity is 106 kBtu/ft²yr compared to the national average of township public assembly / Library building consuming 104 kBtu/ft²yr. Implementing this report's recommendations will reduce use by approximately 22.4 kBtu/ft²yr, which when implemented would make the building energy consumption much better than the national average. There may be energy procurement opportunities for the Mt. Olive Public Library to reduce annual electric utility costs, which are \$5,878 higher, when compared to the average estimated NJ commercial utility rates.

Based on the assessment of the Mt. Olive Public Library, SWA has separated the recommendations into three categories (See Section 4 for more details). These are summarized as follows:

Category I Recommendations: Capital Improvement Measures

- Select NEMA Premium motors when replacing motors at the end of their useful operating lives

Category II Recommendations: Operations and Maintenance

- Air balance distributed conditioned air - for uniform and steady temperature control
- Thoroughly and evenly insulate space above the ceiling tiles and replace ceiling tiles
- Maintain roofs - SWA recommends regular maintenance to verify water is draining correctly
- Maintain downspouts and cap flashing - repair / install missing downspouts and cap flashing as needed
- Provide weather stripping / air sealing
- Repair / seal wall cracks and penetrations
- Provide water efficient fixtures and controls
- Use Energy Star labeled appliances
- Use smart power electric strips
- Create an energy educational program

Category III Recommendations: Energy Conservation Measures - Upgrades with associated energy savings

At this time, SWA highly recommends a total of **3** Energy Conservation Measures (ECMs) for the Mt. Olive Public Library that are summarized in the following Table 1. The total investment cost for these ECMs with incentives is **\$15,982**. SWA estimates a first year savings of **\$7,875** with a simple payback of **2 years**. SWA estimates that implementing the highly recommended ECMs will reduce the carbon footprint of the Mt. Olive Public Library by **60,201 lbs of CO₂**, which is equivalent to removing approximately 5 cars from the roads each year or avoiding the need of 147 trees to absorb the annual CO₂ generated. SWA also recommends **3** more ECMs with a total first year savings of **\$47,748** that is summarized in Table 2.

There are various incentives that the Township of Mount Olive could apply for that could also help lower the cost of installing the ECMs, such as enroll in the NJ SmartStart program through the New Jersey Office of Clean Energy. This incentive program can help provide technical assistance for the building in the implementation phase of any energy conservation project. A new NJ Clean Power program, Direct Install, designed for small to medium-sized facilities, cuts energy costs by replacing eligible lighting, HVAC, motors, refrigeration and other equipment with higher efficiency alternatives. The program pays up to 80% of retrofit costs, dramatically lowering upfront costs and improving payback on the project. Services are provided by a network of Participating Contractors.

Renewable ECMs require application approval and negotiations with the utility and proof of performance. There is also a utility-sponsored loan program through JCP&L that would allow the building to pay for the installation of the PV system through a loan issued by JCP&L.

The following two tables summarize the proposed Energy Conservation Measures (ECMs) and their economic relevance. In order to clearly present the overall energy opportunities for the building and ease the decision and choice of which ECM to implement, SWA calculated each ECM independently and did not incorporate slight / potential overlaps between some of the summarized ECMs (i.e. lighting change influence on heating / cooling).

Table 1 - Highly Recommended 0-5 Year Payback ECMs

ECM #	ECM description	source	est. installed cost, \$	est. incentives, \$	net est. ECM cost with incentives, \$	kWh, 1st yr savings	kW, demand reduction/mo	therms, 1st yr savings	kBtu/sq ft, 1st yr savings	est. operating cost, 1st yr savings, \$	total 1st yr savings, \$	life of measure, yrs	est. lifetime energy cost savings, \$	simple payback, yrs	lifetime return on investment, %	annual return on investment, %	internal rate of return, %	net present value, \$	CO ₂ reduced, lbs/yr
1.1	replace (63) incandescent and halogen lamps with CFLs	RS Means, Lit Search, NJ Clean Energy Program	3,150	none at this time	3,150	22,248	6.5	0	1.6	255	4,037	5	18,489	0.8	527	105	126	15,339	30,480
1.2	replace (8) old style Metal Halide lamps with pulse start Metal Halide lamps	RS Means, Lit Search, NJ Clean Energy Program	3,840	200	3,640	5,817	1.7	0	0.4	150	1,139	15	13,596	3.2	335	22	31	9,956	7,969
2	install 7.5 kW Wind rooftop system (with \$3,200/kWh upfront INCENTIVE)	similar projects	60,000	50,808	9,192	15,878	7.5	0	2.0	0	2,699	25	47,001	3.4	411	16	29	37,809	21,732
	TOTALS		66,990	51,008	15,982	43,943	15.7	0	3.9	405	7,875	-	79,086	2.0	-	-	-	63,104	60,201

Assumptions: Discount Rate: 3% per DOE FEMP; Energy Price Escalation Rate: 0% per DOE FEMP Guidelines

Note: A 0.0 electrical demand reduction / month indicates that it is very low / negligible

Table 2 - Recommended 5-10 Year Payback ECMs

ECM #	ECM description	Source	est installed cost, \$	est incentives, \$	net est ECM cost with incentives, \$	kWh, 1st yr savings	kW, demand reduction/mo	therms, 1st yr savings	kBtu/sq ft, 1st yr savings	est. operating cost, 1st yr savings, \$	total 1st yr savings, \$	life of measure, yrs	est. lifetime energy cost savings, \$	simple payback, yrs	lifetime return on investment, %	annual return on investment, %	internal rate of return, %	net present value, \$	CO ₂ reduced, lbs/yr
3	install 50 kW PV rooftop system (with \$1/W INCENTIVE and \$600/1MWh SREC)	similar projects	375,000	50,000	325,000	56,721	50.0	0	7.1	0	43,243	25	752,989	7.5	287	11	11	244,022	77,708
1.3	install (2) occupancy sensors	RS Means, Lit Search, NJ Clean Energy Program	440	40	400	310	0.1	0	0.0	0	53	12	525	7.6	31	3	8	125	425
4	retro commissioning	similar projects	34,250	none at this time	34,250	4,064	1.2	1,860	7.3	1,820	4,453	12	31,593	7.7	56	5	8	10,072	27,330
	TOTALS		409,690	50,040	359,650	61,095	51.3	1,860	14.4	1,820	47,748	-	785,106	7.5	-	-	-	254,219	105,462