



*Washtenaw County Parks and Recreation Commission*

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## MEMORANDUM

**To:** Washtenaw County Parks and Recreation Commission  
**From:** Robert L. Tetens, Director  
**Date:** May 14, 2013  
**Re:** Meri Lou Murray Recreation Center – Request for Proposals

### Background

The Meri Lou Murray (MLM) Recreation Center was constructed in 1990 at County Farm Park. This popular facility offers a full spectrum of health and wellness programming and equipment and attracts more than 325,000 visitors per year. The 51,500 square foot MLM building includes a gymnasium, heated pool, strength and cardiovascular training areas, indoor track, and exercise studio.

The heating, ventilation, and air conditioning system (HVAC) in the MLM is mostly original equipment, with the exception of the recent replacement of the Desert-Aire (natatorium unit) and boiler system. The existing chiller unit is nearing its expected life span and has been a source of continuing problems with failed compressors, bad controls and corroded coils. It is now time to seek a replacement unit that will be less costly to maintain and more energy efficient. However, replacing the chiller alone will not achieve a complete climate control solution. Staff is also investigating options for replacing the existing pneumatic control system.

In November of 2012, WCPARC employed the services of Mechanical/Electrical/Engineering Consultants, PC (MEEC) to develop an evaluation of the MLM HVAC system and provide recommendations for replacement and/or improvement. MEEC submitted their final report in February of 2013.

### Discussion

The evaluation report conducted by MEEC provides the following recommendations:

- 1) **Replace the current pneumatic controls with a digital control system.** Total estimated annual heating and cooling cost based upon energy bills from 2012 is

\$76,525. It is estimated that a new building control system could save a minimum of 30% of the building's energy cost or \$22,957 annually. Estimated cost for a new control system is \$108,000 resulting in a simple return on investment (ROI) of 4.7 years. In addition this will save valuable maintenance staff time currently spent adjusting the system to maintain building comfort.

- 2) **Reset and calibrate dampers and valves.** Over the years there has been constant adjustments done by staff in attempt to control the temperature. The system should be set back to the original design parameters. This should be done when the digital controls are commissioned to properly calibrate the system. Estimated cost is \$13,000.
- 3) **Replace the existing air cooled chiller.** Expected life span on a machine of this type is 20-25 years. While one of the compressors has been replaced a couple of times, the other is still original. The replacement cost is estimated to be \$94,000. Annual chiller operating cost calculated from the 2012 summer electric bills is \$26,556.93. Based upon original chiller performance efficiencies provided by Trane and the efficiencies of their current air cooled chillers, a reduction in energy usage is estimated to be 12% or \$3,186 per year.

The current Capital Improvement Program includes \$200,000 allocated to HVAC improvements at MLM. Replacement of the pneumatic HVAC controls with digital controls, along with replacing defective components and proper air balancing, will help to achieve better temperature stability and control throughout the building. Digital controls would offer more options for cost effective repairs due to the shortage of qualified pneumatic technicians at ever increasing hourly rates. Also, the ability to constantly monitor all aspects of the HVAC solution through an Internet-based Web Control system would provide instant feedback when an issue arises, giving maintenance the opportunity to effect repairs before our patrons felt the problem. This control system will allow future expansion to include lighting and any other energy using device.

### **Recommendation**

I recommend that the Washtenaw County Parks and Recreation Commission authorize staff to move forward with an RFP for installation and calibration of a new digital control system at the Meri Lou Murray Recreation Center. Further, I recommend authorization of a second RFP to be issued this fall for the installation of a new chiller.