Superintendent's Report

December 9th, 2011

LEARNING UPDATE

- **Core Competencies** and the **Old Dog 3 Learning Team** – On Monday, December 5th the Old Dog 3 learning team met for their second meeting. Again, their goal is to dive into the Core Competencies for themselves as well as for their students so as to help learn how to develop learning environments utilizing these targets. Their work on Monday has led them to the idea of video taping students demonstrating the Core Competencies to serve as real examples for each competency. Their energy and excitement for this work is very powerful. It will be interesting to see what they learn regarding how to engage their elementary students (1st through 5th grades) in utilizing the Core Competencies. FYI.

BOARD UPDATE

- **Investment Grade Audit** – We have been working on a project for a couple of months now to work towards applying for an OSPI grant to upgrade facility systems to enhance our energy efficiency. To assist us, we have been working with an energy solutions company (ESCO) called Ameresco Quantum as well as the Department of Enterprise Services (a state agency) to assist us in this work. Ameresco Quantum has worked successfully with more districts state-wide to win these grants than all the other ESCO companies combined.

  Ameresco Quantum has done a preliminary walk through audit of our energy systems and has identified a list of possible energy savings projects to include in our grant proposal. We are now at the stage in the process where we need to complete a process known as an Investment Grade Audit of our systems. This requires a formal study of energy usage and calculated savings with payback periods for the systems identified for review. There will be a cost to this audit (approximately $11K), but only if the ESCO meets our acceptable threshold for savings and we win the state grant, yet we fail to move forward with OSPI approved projects. The savings threshold will be set to produce neutral cash flow (costs of projects including audit can not exceed energy savings).

  The real plus to this effort is that we are including focused work on the boiler and the stand alone hot water heater at the high school, which are approaching twenty years old. The idea is that the collective savings from reduced energy costs, OSPI grant and utility incentives will pay for these long-term capital improvements and not put us in a situation where an aging infrastructure might hit us with a significant mechanical expense in the future. Additionally, there is a very real possibility of producing year-over-year savings in our energy costs beyond our project costs. Both Brett and I have looked at this effort and feel it is a very worthwhile project, both for short-term as well as the long-term. More on this effort as it develops.

I think that is all for now. Please give me a call if you have any questions. Talk with you later.

Mark

Project: La Center School District Energy Services - OSPI Grant 2012
Project No.
Date: 12/9/11
Subject: List of Potential Energy Conservation Measures (ECM's) - Limited Audit Scope

ECM	Description	Payback Rank
High School		
Mechanical Conservation Measures		
HS-M1a	Boiler Plant Replacement: This measure will replace the existing Weil-McLain boiler with high-efficiency, modulating / condensing boiler technology. Savings will be reduced through better load matching and higher combustion efficiency.	3
HS-M1b	Heating Plant Replacement: This measure will replace the existing Weil-McLain boiler with high-efficiency, modulating / condensing boiler technology. The existing Lochinvar central domestic water heater will be removed, and the 250-gallon storage tank will be retrofitted with double-wall heat exchanger tubes fed from the new boiler, to take advantage of its high combustion efficiency.	3
HS-M2	Boiler Retrofit: This measure will replace the burner assembly on the existing boiler. Savings will be realized through reduced cycling losses and better load matching.	1
HS-M4	Upgrade existing DDC Energy Management System (EMS): This measure will upgrade the existing JCI Energy Management System (EMS), and retro-commission the entire system. - Prevent simultaneous heating and cooling. - Ensure that control sequences close outside air dampers during warmup mode and after-hours. - Optimize system runtime schedules to occupancy of the spaces they serve.	2
HS-M5	Demand Controlled Ventilation (DCV): This measure will implement Demand-Controlled Ventilation (DCV) and reduce runtimes for HVAC systems serving areas of sporadic occupancy. Savings will be realized through reduced outdoor air intake and eliminated runtimes during unoccupied periods. - Tie the existing Gymnasium occupancy sensors to the EMS. - Install occupancy and/or CO2 sensors in the weight room and commons. - Install occupancy sensors in the wood shop and boys' & girls' locker rooms.	1
HS-M6	Retro-Commissioning: This measure will perform retro-commissioning of the existing JCI Energy Management System (EMS). Runtime schedules for all systems will be verified against building occupancy schedules, and control sequences will be confirmed to close outside air dampers during warmup mode and after-hours. This measure would be an alternative to full the EMS upgrade (M4).	1
HS-M7	Hydronic Pumps: This measure will retrofit the hydronic pumps with Variable Frequency Drives (VFDs) to allow flow reduction as heating demand varies. 3-way valves throughout the system will be retrofitted to 2-way. Electricity savings will be realized through reduced motor power usage.	2
HS-M8	Metal Shop HVAC: This measue will implement return air for the metal shop, either with a dedicated air handling unit or introducing return air tempering on the existing makeup air unit. In either case, return air will be interlocked with the welding exhaust fan to allow the unit to provide welding exhaust makeup air. Heating will be interlocked with the shop door. Savings will be realized through reduced heating demand from unnecessary outdoor makeup air when welding exhaust is not in use.	2
HS-M9	Weatherstripping: This measure will refit the exterior doors with durable weatherstripping to reduce building leakage and outdoor air infiltration.	1