
Agenda Item #15

LOS ANGELES UNIFIED SCHOOL DISTRICT

**HIGH PERFORMANCE SCHOOLS PROGRAM
THIRD QUARTER 2008 REPORT**

November 4, 2008

This Third Quarter 2008 Report on the Los Angeles Unified School District High Performance Schools Program fulfills the directive of the Board of Education's October 28, 2003, *Sustainability and the Design and Construction of High Performance Schools* resolution.

1. PROGRAM MANAGEMENT

- **High Performance Schools Executive Committee:** At its quarterly meeting on July 23, the Executive Committee reviewed and approved the High Performance Schools Second Quarter 2008 Report. The Committee, which includes managers of key Facilities divisions and the Office of Environmental Health and Safety, coordinates the implementation of the High Performance Schools Program and reporting its status to the Board of Education.
- **High Performance Schools Working Group:** Formed in 2000, the Working Group provides a forum for the many stakeholders interested in the High Performance Schools Program to learn about, comment on and support the Program. The Working Group's third quarter meeting, held September 5, provided an update of the draft CHPS 2009 new construction criteria; a description of the new CHPS Criteria for Performance and Operations, now under development; and an update of the District's many sustainability and green initiatives. It was reported that LAUSD has applied to participate in the pilot program for both the CHPS Performance and Operations criteria and for LEED for Existing Schools, the parallel standard being developed by the US Green Building Council.
- **Global Green Support:** As it has for the past four years, Global Green USA, continues to support the implementation of LAUSD's High Performance Schools Program under funding provided by the Annenberg Foundation. Their key task is working with District staff to review the CHPS performance of new schools. At the completion of design, Global Green verifies each project's CHPS score. Global Green also assists the District with other programmatic matters related to high performance schools.

2. INITIATIVES

- **CHPS Compliance During Construction:** The LAUSD CHPS construction oversight program, designed to ensure that specified high performance strategies are fully implemented, is underway on the eighteen new school projects currently under construction that are seeking CHPS certification; additional CHPS projects are scheduled to begin construction soon. Four reviews of each project will be conducted during construction. To date, the program is performing well.
- **Repair Projects High Performance Criteria:** The voluntary high performance criteria for common repair projects are being reexamined with the goal of insuring that they are incorporated into as many projects as feasible.
- **Water:** LAUSD's existing schools water efficiency program currently focuses on installing smart irrigation controllers and water efficient restroom fixtures. The goal is to expand the program to include irrigation system upgrades as many of the District's systems are in need of both repair and modernization. The District has been testing and evaluating various water saving urinals to replace urinals in restrooms District-wide. Initial test results, based on total life-cycle costing, indicate that the more cost effective solution may be ultra-low flow urinals in contrast to waterfree. However, to determine the appropriate urinal strategy for both new and existing schools, the District will be hosting an industry forum on October 21st to gather input for further analysis. The current requirement code is 1 gallon per flush (gpf); the options are waterfree or 1/8 gpf fixtures (also known as ultra-low flow). Currently all new schools are being designed for waterfree urinals, while existing restroom renovations vary on type of urinal being installed.
- **Storm Water Management:** The school district has been active in storm water management, with all Phase II schools and numerous Phase I sites. Many of these sites will have an educational component at the school library. The District is also updating its current storm water management plan, the "white paper," and developing it into a technical manual. This technical manual effort addresses detailed design considerations, maintenance and operations, and training needs for District staff. The manual will also address water conservation issues such purple pipe placement for reclaimed water and new cost conscious directions the Water Board is taking. This effort is scheduled to be completed by June 2009, and will be followed by staff training.

In conjunction with other school and college districts, District staff is working with the California Stormwater Quality Association (CASQA) Phase II Subcommittee on future non-traditional MS4 permit requirements. The State Water Resources Control Board classifies school districts as Non-Traditional Small MS4 Permittees.

- **Energy Efficiency:** Energy management systems (EMS) will be installed, if funding is available, in thirty existing schools, and a standard EMS specification is being developed for new schools. Controller vendors are being qualified.

- **Renewable Energy:** The installation of a 1 MW (megawatt) solar photovoltaic system began this quarter on LAUSD's Pico Rivera warehouse. Three more solar projects totaling between 600 and 700 kW (kilowatts) of installed capacity were approved by the Board of Education on September 23. All of these projects are in Southern California Edison's service territory; are being financed by outside investors through private placement agreements; and will be completed this year in order to capture the current level of financial incentives (the incentives will decrease next year). Unfortunately, solar system cost is not decreasing sufficiently to offset the coming drop in incentives.

Phase III and IV new schools are being designed to incorporate integrated photovoltaic systems, for example into skylights. During the early design stages, the focus is on maximizing the amount of open roof that can accommodate solar systems and ensuring that roofs can support these systems' weight. The goal is to design each new school to enable renewable energy to supply 30 percent of its energy consumption.

- **Commissioning:** The District's commissioning program, which is required by CHPS to ensure that each project's energy systems perform as intended, was implemented in September. During the design stage, District Design Managers are serving as commissioning agents; third party firms will undertake construction stage commissioning activities. The District has pre-qualified seven commissioning firms.
- **Materials:** To earn the maximum number of CHPS low emitting materials points, a project must use qualifying materials from eight different categories (each category is worth one-half point). LAUSD has only been able to locate acceptable materials in five of the eight categories, including furniture. CHPS is hoping to identify additional compliant materials through its US EPA-funded grant to expand the CHPS materials database. The expanded database will address both low emitting and other CHPS-related material attributes.
- **Gardens:** All new school projects are being reviewed before bidding to determine if the budget and schedule permits converting a portion of the open space into an instruction garden.
- **LEED for Schools:** LEED for Schools is similar to CHPS, but is more recognized by the public because LEED is also utilized for many other building types. It has not been the District's focus because CHPS was developed for California schools; Proposition 1D CHPS incentives are available; and LEED certification is relatively expensive. However, the District will seek LEED for Schools certification for two new schools to illustrate how the District's projects perform against this system. The goal is for these projects to earn at least a LEED Silver rating; LEED projects are certified as Certified, Silver, Gold or Platinum.

3. HIGH PERFORMANCE & INCENTIVE PROGRAMS

- **CHPS:** The third generation of CHPS, CHPS 2009, will under go its second and final public review in October. During the first round of review, LAUSD submitted a comment letter detailing its concerns and supporting key modifications of importance to the District. Key changes include strengthening the energy efficiency prerequisite so that projects must exceed Title 24 by 15 percent rather than 10 percent and the inclusion of outside noise in the acoustics prerequisite. CHPS 2009 will take effect next July concurrent with the revised California Title 24 Energy Performance Standards.

CHPS has is now national and is policy in 11 states. The CHPS website will be relaunched in January to reflect this change. The CHPS Board is being restructured to incorporate members from outside California.

- **Proposition 1D High Performance School Incentives:** Thirty LAUSD projects have earned over \$8.7 million of the approximately \$10 million in Prop. 1D incentive funds approved to date by DSA; \$100 million in incentives are available. Ten additional LAUSD schools are expected to qualify during 2008 and earn a total of approximately \$3 million.
- **Savings By Design:** All eligible new LAUSD projects continue to participate in Savings By Design, a technical assistance and incentive program offered by Southern California Edison. Savings By Design will be revised after this year. and CHPS and LEED may be recognized by the program for the first time. Incentives of up to \$140,000 per project will be offered to those projects using the whole building/ integrated design approach. Savings By Design incentives are distributed at the end of construction, whereas Proposition 1D funds are distributed after the design review.
- **LADWP Energy and Water Efficiency Incentives:** LADWP's "New Construction Energy Efficiency Program" offers cash incentives to developers of energy efficient projects. The "Prescriptive Design" incentive is based on equipment efficiency; the "Comprehensive Design" incentive depends on each project's overall energy efficiency performance and requires CHPS or LEED third-party certification. As required, LAUSD will apply for these incentives when projects have completed construction. The District is also pursuing LADWP as well as Metropolitan Water District funds to assist in the implementation of water efficiency measures.

4. STATISTICAL SUMMARY

- **Board Resolution CHPS Compliance:** The Board of Education October 2003 High Performance Schools Resolution required that all eligible projects earn CHPS recognition and directed staff to provide quarterly statistics on the progress towards meeting this mandate.

LAUSD projects utilize the CHPS version in effect at the time design begins, to date either CHPS 2002 or CHPS 2006 (future projects may fall under CHPS 2009). The requirements for each are as follows:

- CHPS 2002: New school projects must receive a minimum of 28 points plus fulfill the 9 prerequisites. At least two points must be from the Energy section. The October 2003 Resolution, adopted when CHPS 2002 was in effect, established a goal of 32 points.
- CHPS 2006: New school projects must earn at least 32 points and meet the 11 prerequisites. New buildings on existing campuses must earn at least 25 points and fulfill the prerequisites appropriate for each project. As with CHPS 2002, at least two points must be from the Energy section.

Phase II New Schools (CHPS 2002)				
	Number of Projects Reviewed	Average CHPS Score	28-31 Points (%)	32 + Points (%)
Final Design Scorecards	36	33	42%	58%

Phase III & IV New Schools (CHPS 2006)				
	Number of Packages Reviewed	Average CHPS Score	Less than 32 Points (%)	32 + Points (%)
Schematic Design	19	32	32%	68%
Design Development	21	35	24%	76%
50% Construction Documents	11	36	9%	91%
100% Construction Documents	7	37	0%	100%
Final Design Scorecards¹	0	NA	NA	NA

New Buildings on Existing Campuses (CHPS 2006) Core Facilities & Seismic Retrofit Projects (16 Projects Reviewed; 8 Projects Potentially Eligible for Prop. 1D Funds)	
Project Phase	Average CHPS Score
Schematic Design	13
Design Development	29
50% Construction Documents	30
100% Construction Documents	29
Final Design Scorecards¹	n/a

1. Any discrepancy between the number of 100% Construction Document packages and number of CHPS Scorecards Finalized is due to projects that are finalizing CHPS compliance during DSA review before submission to DSA.

- **Proposition 1D High Performance Schools Incentives:** LAUSD applies for each grant as part of the application for State construction cost reimbursement.

Proposition 1D High Performance Schools Incentives				
Number of Eligible Projects Submitted to DSA	Number of DSA Reviews Completed	Approved Grant Total for Reviewed Projects	Number of Projects which have Received Grants	Total Grant Amount Received to Date
30	30	\$8,700,000	19	\$5,208,989

- **LADWP Energy Efficiency Incentives:** Projects can only be submitted for LADWP incentives upon completion. No eligible LAUSD projects have are finished. Statistics will be presented upon submittal of the first applications.
- **Savings By Design Energy Efficiency Incentives:** To be eligible, projects must be at least 10 percent more efficient than required by the California Title 24 Energy Efficiency Standards. Incentives are paid to LAUSD and the Design Team at the completion of construction, once the savings are verified. Potential incentives per project are \$150,000 for LAUSD and \$50,000 for design teams; the actual amount depends on the amount energy saved.

Savings By Design Incentives	
	Totals
Incentives Paid	\$182,502
SBD Contracted	\$793,033
Total	\$975,535