

MEMORANDUM

TO: Board of Directors, Massachusetts School Building Authority
FROM: Katherine Craven, Executive Director
DATE: March 31, 2010
RE: Update on Sustainable Building Design Guidelines and Policy Recommendations

The MSBA is now assuming the leadership role in the administration and review of sustainable policies and "Green Design" for school buildings since the Massachusetts Technology Collaborative announced that they would no longer be administering that portion of the program. The MSBA has had the opportunity to reaffirm its goal of supporting higher levels of sustainable construction by reviewing and updating its standards for MSBA-funded projects, in order to stay current with these increased levels of environmental sustainability. This memorandum is to provide a summary of the efforts to date as well as the recommended policy changes.

The MSBA had already recognized the importance of sustainable design and environmental issues in its regulations, 963 CMR 2.04 *General Site and School Construction Standards*, which included minimum basic levels of sustainability standards for all MSBA-funded projects, including requirements that exceeded the Massachusetts State Building Code regarding compliance in indoor air quality standards and the maximization of natural daylight in classrooms. As you know, the MSBA fully funds commissioning of school buildings as another demonstration of our commitment to sustainable buildings, maximizing energy efficiency, promoting ease of maintenance and ensuring quality construction.

In addition to basic requirements in our regulations that promote green building practices and designs, MSBA has been a leader in developing green school guidelines which include provisions that the MSBA may award a school district up to an additional 2% of a project's eligible costs if the project meets certain criteria under the *Massachusetts High Performance Green Schools Guidelines* published by Massachusetts Collaborative for High Performance Schools (MA-CHPS) in 2006, as administered by the national Collaborative for High Performance Schools (CHPS) organization.

As reported previously, the MSBA has focused our efforts during the transition of the Green Schools program from MTC to MSBA in reviewing and refining all assumptions in our statewide approach to sustainable design and construction to ensure that we are embracing the most recent knowledge that exists. The MSBA has taken time to assess the potential to utilize both MA-CHPS and LEED for verification and certification and to understand the recent and pending changes in the building code including a new "Stretch Energy Code" appendix that allows communities to adopt this standard requiring (in general terms) a 20% increase in energy efficiency for building projects within their communities. Additional MSBA review and effort has included:

- Research sustainable policies of other Massachusetts state agencies and conduct outreach with professional groups such as the Boston Society of Architects, non-profit organizations including the Massachusetts Technology Collaborative, Green Roundtable, and Northeast Energy Efficiency Partnerships, higher education administrators,

educators, owner's project managers and architects to discuss project specific goals regarding sustainability.

- Participation in the review update of the 2006 MA-CHPS guidelines with CHPS as well as the public comment review period. In March 2010, CHPS updated the MA-CHPS guidelines in a document titled *Massachusetts CHPS Criteria for New Construction and Major Renovations* (2009). This version emphasizes efficient energy consumption and lower operating costs by requiring a project to achieve greater quantities of points within the Energy Efficiency category, updated operations and maintenance criteria and distinguishes criteria and a separate point level for renovating an existing building to encourage Districts to renovate their existing buildings, when feasible.
- Comparison of the MA-CHPS and US Green Building Council (USGBC) LEED for Schools (LEED-S) programs providing comparable levels between the two programs to document a project's level of sustainable achievement;
- Update the minimum requirements for all new construction and major renovation/addition projects, and the required levels of achievement, for projects attempting to receive the additional 2% reimbursement for Energy Efficiency / Green School Program, to stay current with increased levels of sustainability in the Massachusetts State Building Code, MA-CHPS and LEED-S.

POLICY RECOMMENDATIONS:

The following are our recommendations for policy changes relevant to the sustainable design of schools, including allowing designers to use a comparable LEED scale for the MA-CHPS standards when designing schools in Massachusetts:

	Existing Policy	Proposed Policy
Minimum Sustainable requirements	963 CMR, 2.04 General Site and School Construction Standards	1) Regulation revisions to 963 CMR, 2.04 to clarify design requirements for interior classrooms, daylighting and views as part of the standard design (done as part of recent regs revision) 2) MA-CHPS Verified level – 40 points for new construction/35 points for renovation 3) LEED-S Certified level – 40 points (minimum of 5 points in EA Credit 1 “Optimize Energy Performance” with minimum energy costs savings of 20% for new buildings and 16% for existing building renovations)
Registration/Verification Options	MA-CHPS 2006 Guidelines	MA-CHPS 2009 LEED-S
Additional reimbursement points	MA-CHPS 2006 30 – 33 points: 1.5% 34 points or greater: 2%	MA-CHPS 2009 Leader 50 points new construction – 2% 45 points renovation - 2% LEED-S Silver (minimum of 5 points in EA Credit 1 “Optimize Energy Performance” with minimum energy costs savings of 20% for new buildings and 16% for existing building renovations) - 2%

The MSBA will continue to monitor sustainable design practices and advancements in the industry as well as state guidelines to continue to advance the sustainable qualities of the schools in Massachusetts.