TO: Maureen G. Valente, Chief Executive Officer

John K. McCarthy, Executive Director, Deputy Chief Executive Officer

FROM: Karl Brown, Senior Architect

John Jumpe Jr., Director of Project Management Mary Pichetti, Director of Capital Planning

SUBJECT: Model School Program Administration Recommendation

DATE: September 1, 2016

## **Introduction**

This memo describes updated procedures to administer the Model School Program ("Program") as established by the Massachusetts School Building Authority ("MSBA") that are consistent with the goals of the Program. The MSBA seeks to adapt and re-use the designs of successful, recently constructed schools to meet the requirements of a school district that has been approved by the MSBA's Board of Directors to construct a new (versus renovated) school. To maximize the benefits of an existing proven design, it is important to minimize design changes of the model school. The MSBA believes the adaptation of successful existing designs will have many benefits, including:

- Proven designs meeting certain criteria will contain many best practices that should be perpetuated in school design.
- Adaptation of an existing design, versus development of a completely new design, will streamline the design process and result in reduced design fees.
- The pre-construction schedule will be compressed and will accelerate the start of construction and thus reduce the impact and uncertainty of inflation in construction costs on the overall cost of the project.
- Except for unforeseen site conditions, re-use of the design should limit construction change orders.

#### **Background**

The Program, introduced in 2008, has been utilized by 18 districts between 2009 and 2012. It had 16 pre-qualified models, prior to the 12 selected model schools recently approved by the Board of Directors on July 20, 2016 (Attachment 1 - Board Memorandum dated July 13, 2016). In March 2016, the MSBA Board of Directors approved the staff recommendation to eliminate the additional reimbursement incentive associated with the Program effective for all districts receiving an invitation into eligibility period January 1, 2016 or later (Attachment 3 - Board Memorandum dated January 20, 2016). Since its inception, the MSBA has periodically updated the list of pre-qualified model schools and anticipates continuing this practice to ensure available model schools remain relevant and adaptable to current building codes and school needs.

As indicated in the staff memorandum for recommendations to approve new model schools and to remove the incentive points, the MSBA convened a joint task force together with representatives from the Boston Society of Architects in November of 2011 to evaluate potential improvements to the existing Program. The findings and comments (Attachment 2) of this task

force informed request for qualifications issued to approve new model schools and staff have incorporated these updates into the administrative procedures presented below.

## **Recommendation**

Attached is a more complete set of recommended administrative procedures, below is a summary of the recommendations for the proposed Model School Program Administration Procedures.

- A district should signal interest in the Program prior to issuing its designer request for services, if possible;
- A district must complete a feasibility study that demonstrates new construction is the most educationally appropriate and cost effective solution;
- A district must notify the MSBA of its interest in participating in the Program on or before the deadline for submitting the preferred schematic report to the MSBA;
- MSBA staff would simultaneously review (1) the district's preferred schematic report for enrollment, educational programming, and site conditions, and (2) perform a separate review process to determine if any of the model schools could meet the educational needs identified by the district;
- MSBA staff would present its model school review at the same Facilities Assessment Subcommittee meeting where the district presents its educational program, feasibility study, and preferred solution;
- MSBA staff must recommend, and the Board of Directors must authorize, the district's preferred solution to replace the existing school facility with new construction and invite the district to consider a list of potential model school candidates, if any;
- A district must invite the designers of the recommended model schools, as well as the designer of its original preferred solution, to interview for the proposed project;
- A district must (1) evaluate, interview, and select one of the recommended model school designers and then negotiate a designer fee and engage the selected model school designer, or (2) choose to proceed with the designer of the original preferred solution;
- Should a district select a model school designer, the MSBA would limits its reimbursement for Designer Basic Services to 4.75% of construction cost and Owner's Project Management basic services to 3.30%;
- Should a district choose to continue with the designer of its original preferred solution, the MSBA would limits its reimbursement for Designer Basic Services to 10% of construction cost and Owner's Project Management basic services to 3.5% in accordance with current practices for Core Program projects;
- A district generates a schematic design submittal and submits it to the MSBA for review and approval of a proposed project scope and budget;
- A district secures local authorizations and approvals and proceeds with an accelerated detailed design and bid schedule; and
- The MSBA requires one instead of three detailed design submittal (a 60% CD Submittal).

Refer to the attached Administrative Procedures for more detail.

#### Overview

This overview provides a summary of the steps a district should take if it is interested in the MSBA's consideration for an invitation into the Model School Program (the "Program"). A general timeline of the process is provided in summary with more specific steps outlined below.

If a district is interested in understanding more about the Program or may wish to be considered for an invitation to the Program, the district should plan to include this potential interest in the designer request for services. The district, with the assistance of its owner's project manager and designer, will conduct a feasibility study including the development and submittal of a preliminary design program and a preferred schematic report in accordance with Module 3 – Feasibility Study. Should the district determine through its feasibility study that new construction is the most educationally appropriate and cost effective solution and is interested in the Program, the district would request, in writing, consideration for invitation into the Program. This written certification would initiate an MSBA review process to determine if any of the model schools could meet the district's needs. In parallel, the MSBA would review the district's preferred schematic report.

In accordance with the MSBA's grant process, the district and its consultants would present its preferred schematic to the MSBA Facilities Assessment Subcommittee. The MSBA staff would present its model school review at the same Facilities Assessment Subcommittee meeting. Should one or more model schools fit, the district could select a model school and its designer or it could choose to proceed with its current designer and its preferred schematic. The district would proceed into schematic design and submit its proposed project for approval of the MSBA Board of Directors.

Further details regarding key elements of district and MSBA actions for the Program are noted below.

#### Module 3 Feasibility Study

Prior to submission of the preferred schematic report submittal to the MSBA, all Core Program projects will follow the standard process for a typical MSBA feasibility study as outlined in the Module 3 Feasibility Study Guidelines. If the preferred schematic report submittal indicates a district preference for all new construction, the district may provide a certification as a part of the submittal that requests consideration for participation in the Program. The MSBA's receipt of the certification noted above should not be construed as an acceptance of the district's preferred schematic, nor be considered an invitation into the Program.

The decision by the MSBA to invite a district into the Program is entirely discretionary and participation by the district is voluntary. The MSBA staff will review the preferred schematic report submittal, prepare written comments for the district, and prepare a Board recommendation. The district and design team will complete the feasibility study phase by responding to the MSBA preferred schematic report submittal review comments, participate in a

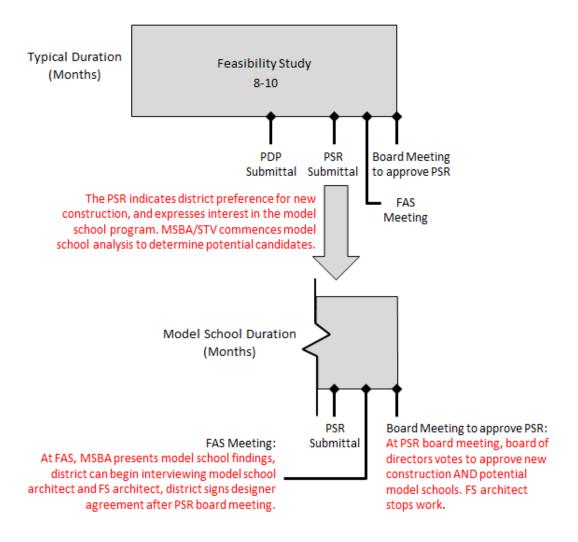
presentation at the Facilities Assessment Subcommittee meeting, and prepare for the upcoming Board meeting. During this Facilities Assessment Subcommittee meeting, the district can describe why consideration for invitation into the Program may benefit the district. Typical for all feasibility study projects, the Facilities Assessment Subcommittee presentation will include a preliminary new construction building option, including comparative cost data, based on the design requirements outlined in the submittal by the design team. This new building design and cost data may be used later by the district as a basis for the comparison to the model school.

# Eligibility for Participation in the Program and Model School Selection

Upon receipt of the district's certified request as part of its preferred schematic report and independent of the preferred schematic report submittal review process noted above, the MSBA staff will make an initial determination whether the grade configuration, design enrollment, educational program, or site conditions present obvious barriers to the district's participation in the Program (Attachment 4). This initial determination would include the next steps:

- a) Districts with preferred schematics that do not pass this initial determination will not be considered. Results of this initial determination will be provided to the district and design team prior to the Facilities Assessment Subcommittee meeting.
- b) If no obvious barriers exist, the MSBA staff and its technical services consultant will perform a detailed analysis of the district's proposed project as it compares to the available model school designs to identify potential models for further consideration. This analysis is an established process that is based on conformance with grade configuration, design enrollment, space summary, the district's educational program, and site configuration (Attachment 5 Model School Evaluation Template). The MSBA staff will present its findings at the same Facilities Assessment Subcommittee meeting in which the district describes its preferred schematic and interest in the Program. The MSBA staff will provide the district with a list of model schools that meet the requirements listed above, if there are any, and describe allowable changes to the model school space summaries.

Based upon the discussion at the Facilities Assessment Subcommittee, the MSBA staff may prepare a recommendation to the Board of Directors at its next meeting to approve the district's preferred schematic and also include a recommendation to consider the district to participate in the Program. The recommendation would include a list of the viable model schools for consideration by the district.



#### **Designer Interviews**

Following an approval by the Board of Directors, the district will be given a defined time limit to contact and interview the potential model school designers, select a model school (or continue with the original designer that prepared the feasibility study submittals), and provide the MSBA with either an executed contract with the selected model school designer or written notification of its decision to proceed with its preferred schematic as described in the preferred schematic report. This time limit will be based on the expectation that the district must be prepared to execute a designer services contract following the approval by the MSBA Board of Directors of the district's preferred schematic design and consideration into the Program. By participating in the interviews, each potential model school designer must agree to the terms of the model school designer contract or decline the invitation to interview. The MSBA staff will not participate in the interviews; they will be organized and administered by the district, with assistance from the owner's project manager, at a location determined by the district. In preparation for the interviews, the district should provide each potential designer with a complete electronic copy of the feasibility study submittals, the MSBA review comments, and district responses, to the extent

that they have been completed. The district should be able to describe the extent of allowable modifications to the model school designs as expressed by the MSBA during the Facilities Assessment Subcommittee meeting. The original feasibility study designer should also be given the opportunity to interview, and present any advantages of the custom design defined in the preferred schematic report. The original feasibility study designer may also have a model school, and present it as an option for the district, if the MSBA had previously determined that this model school is a viable option for this district using the process described above. Because many owner's project manager firms also provide designer services, and may have approved model schools, the district must ensure that there is no conflict of interest between the project owner's project manager and the model school selection process.

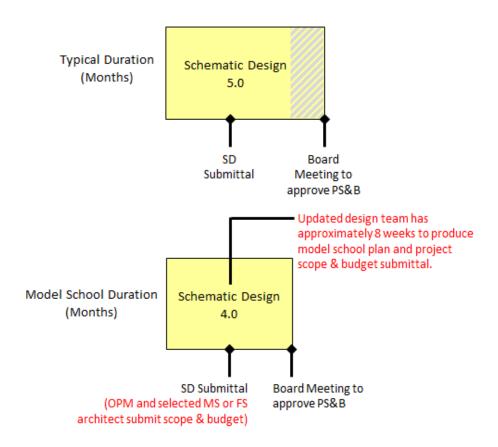
# Designer and owner's project manager contracts

If a model school is selected, the district and its owner's project manager will be responsible for negotiating the designer's fee. In calculating its grant, the MSBA staff will apply its funding limit to its reimbursement to the district to an amount that is equal to 4.75% of the estimated construction cost for basic services. This reimbursement amount is in addition to and does not include any of the MSBA reimbursement to a district for designer services that are provided for a feasibility study. In addition, the MSBA will limit its reimbursement for owner's project manager to an amount that is equal to 3.30% of construction cost for basic services. This amount will include the owner's project manager fee for the feasibility study phase. All other MSBA funding limits and caps will apply to districts utilizing the Program. The selected designer must update the list of sub-consultants to comply with the current minority / women business enterprise requirements, if necessary. Note that, if the district is interested in the Program during the eligibility period phase of the project, it should include this information in the designer request for services, and the district or owner's project manager may want to consider procuring existing site conditions and hazardous materials sub-consultant reports directly (rather than the feasibility study designer) to ensure continuity between the original designer and model school designer.

#### Schematic Design Submittal

The model school schematic design submittal, review by the MSBA, staff recommendation and the MSBA Board of Directors approval will proceed in compliance with the Module 4 Schematic Design Guidelines in the same way as all Core Program projects. For example, the design team must submit the design to the MSBA for Department of Elementary and Secondary Education review of the special education program and layout, and revise the design if necessary. The model school must comply with the MSBA's current sustainability policies and high school science lab guidelines, if applicable. Design modifications to the model school must be approved by the MSBA, and will include adaptations to the number of classrooms required to accommodate the appropriate design enrollment, and any adaptations related to site requirements. Typically, districts require 4 months (2 MSBA Board meeting cycles) to 6 months (3 MSBA Board meeting cycles) to complete the schematic design submittal. Because

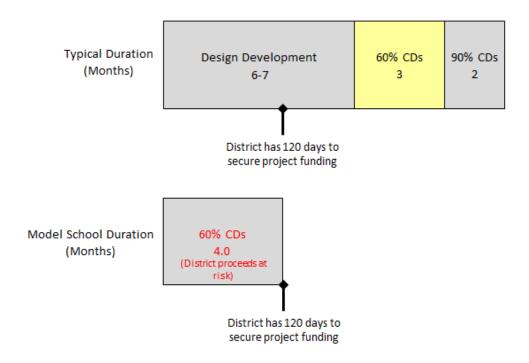
adjustments to the model school design will be limited, it is anticipated that the design team may require less time to complete the SD submittal, including the schematic design, cost estimates and total project budget information.



## **Construction Documents**

Because the model school construction documents have already been developed, the district may choose to reduce the number of design submittals required. For districts participating in the Program, the MSBA will not require the design development and 90% construction document submittals to be submitted to the MSBA. The MSBA will require 60% construction documents to be submitted for its review and comment. The designer must update the bid documents to comply with all applicable building and energy codes, receive and incorporate the structural peer review and commissioning agents review comments, and incorporate all design coordination revisions from the original project record drawings (note that record drawings are provided by the designer in the original project contract). The designer will conduct a post occupancy evaluation with the original building staff, and modify the construction documents as appropriate and as described in the model school acceptance letter certified by each selected designer. Because the design team could potentially provide significant portions of the designer services

(and incur associated fees) before the district may have procured local funding for the project, the district must ensure that funding is in place to compensate the designer and owner's project manager for services provided, regardless of the outcome of the local approval. Because the MSBA does not enter into a project funding agreement with the district until the district has secured local funding for the project, the MSBA will not reimburse costs associated with post schematic design fees if the project fails local approvals. If the district hasn't already procured adequate funds for this in the eligibility period phase of the project, they may have to reappropriate for additional funding.



#### **END**

Included with this memorandum are:

- Attachment 1 Model School Program Recommendations memo presented at the Board meeting on July 20, 2016;
- Attachment 2 Model School Task Force Final Summary of Comments dated September 26, 2012;
- Attachment 3 Staff Recommendation to Remove Incentive Points for Model School Program Memo presented at the Board meeting on January 27, 2016;
- Attachment 4 Model School Timeline Graphic; and,
- Attachment 5 Model School Evaluation Template dated January 19, 2013.

#### MEMORANDUM

TO: Board of Directors

FROM: Maureen G. Valente, Chief Executive Officer

John K. McCarthy, Executive Director, Deputy Chief Executive Officer

SUBJECT: MSBA Model School Program Recommendations

DATE: July 13, 2016

The purpose of this memorandum is to seek the Board of Directors approval of 12 project designs, as indicated on page 3, for the MSBA's Model School Program. The MSBA issued a Request for Qualifications ("RFQ") dated December 16, 2015, requesting project designs for consideration to be included in the Model School Program. In accordance with established practices, staff has completed its review of the Model School Program applications submitted by Designers in response to the RFQ. The information and recommendations below were presented at the Facilities Assessment Subcommittee meeting on June 15, 2016.

# Background

The MSBA's Model School Program seeks to adapt and re-use the design of successful, recently constructed schools to meet the requirements of a school district that has been invited by the MSBA's Board of Directors to construct a new (versus renovated) school. Under the Model School Program, the MSBA intends to select from existing school designs meeting the appropriate criteria and to pre-qualify the designer of each selected Model School. The District, in collaboration with the MSBA, may then select one of the pre-qualified Model Schools and its designer. The school district will then enter into a contract with the selected designer for design services. It is anticipated that the list of pre-qualified Model Schools will be updated periodically.

The recommended Model Schools listed below meet the following minimum requirements:

- 1. The proposed Model Schools are new, PK-12 construction facilities, located within a 125 mile radius of Worcester, MA;
- 2. The proposed Model Schools were permitted using the 7<sup>th</sup> edition or 8<sup>th</sup> edition of the 780 CMR Massachusetts State Building Code;
- 3. The proposed Model Schools were registered with either U.S. Green Building Council "LEED-S" or Collaborative for High Performance Schools ("CHPS"), and;
- 4. The proposed Model Schools have been open for full occupancy for a minimum of 12 months as of March 1, 2016 (using the substantial completion date as the starting date of occupancy; for phased occupancies, using the final substantial completion date).

In addition, the recommended Model Schools were evaluated favorably using the following criteria:

- 1. Completeness of the requested submission materials;
- 2. The extent to which the schools can be adapted to other sites without substantial redesign or expense;
- 3. The extent to which the school classroom wing/areas may be adapted to a 20% addition and reduction in design enrollment by adding or reducing the number of classrooms. The Core Academic portion of the design can be adaptable to expansion or contraction to meet a specific design enrollment, with minimal re-design effort;
- 4. The extent to which the school may be adapted to variations in educational programs. In particular, the designs are adaptable to various teaching methodologies, grade configurations, class offerings, and reconfiguration of core classroom space with minimal re-design effort;
- 5. The extent to which the spaces in the schools allow for maximum flexibility for multiple and/or future uses;
- 6. The extent to which the designs include differentiated learning spaces and student and teacher collaboration areas;
- 7. The efficiency of the designs; how closely the schools conforms to current MSBA space summary guideline standards, including net square footage by category, total net square footage, total gross square footage, overall grossing factor (GSF/NSF), and space utilization of capacity generating spaces;
- 8. The extent to which the schools incorporate energy efficiency and sustainable design elements, based on the current MSBA Sustainable Building Design Guidelines;
- 9. The schools' environmental qualities and natural lighting;
- 10. The extent to which the schools comply with the MSBA Guidelines for Science Labs in High School Facilities (if applicable);
- 11. The construction cost per gross square foot exclusive of site development, Furnishings, Fixtures & Equipment ("FF&E"), and soft costs;
- 12. The extent of change orders as a percentage of the original bid price (exclusive of Owner directed change orders or change orders related to differing or unforeseen site conditions);
- 13. The ability of the proposed design teams to comply with the goals of the Model School Program (design "best practices", accelerated production schedule, reduced fees, reduced change orders, etc.), based on previous project experience with MSBA; and,
- 14. Any other criteria that the MSBA deemed relevant to the evaluation of proposed Model Schools.

The MSBA received 20 responses to the RFQ on February 4, 2016. Staff reviewed each response in accordance with the above stated criteria. MSBA staff and its architectural consultant, STV, conducted visits to each of the schools. During the visits, the team sought to

receive input from the districts regarding the benefits of the building and to gain an understanding of any challenges associated with the building. Site visits were attended by several MSBA Board members and members of the Designer Selection Panel. In addition, regular updates regarding the Model School reviews and visits were provided at Facilities Assessment Subcommittee meetings (on February 24, 2016, March 9, 2016, and May 4, 2016) and were presented to the Designer Selection Panel Chair and Co-Chair on March 8, 2016 and June 7, 2016. A full presentation and staff recommendations were presented at the Facilities Assessment Subcommittee meeting on June 16, 2016.

#### Recommendation

Based on the review and findings described above staff recommends that the following 12 project designs be included in the Model School Program:

- Andover Bancroft Elementary School, by Symmes Maini & McKee Associates
- Burlington Memorial Elementary School, by Knight, Bagge & Anderson, Inc.
- Lexington Joseph Estabrook Elementary School, by DiNisco Design Partnership
- New Bedford Lincoln Elementary School, by Mount Vernon Group Architects, Inc.
- Norfolk Freeman-Kennedy Elementary School, by Flansburgh Architects
- Hudson Quinn Middle School, by OMR Architects, Inc.
- Shrewsbury Sherwood Middle School, by Lamoureux Pagano & Associates, Inc.
- Longmeadow High School, by OMR Architects, Inc.
- Grafton High School, by Symmes Maini & McKee Associates
- Monomoy Regional High School, by Mount Vernon Group Architects, Inc.
- Hanover High School, by HMFH Architects
- Uxbridge High School, by Raymond Design Associates, Inc.

The following eight project designs, which were submitted for consideration, are not recommended to be included in the Model School Program:

- Ashburnham-Westminster John R. Briggs Elementary School, by Lamoureux Pagano & Associates, Inc.
- Belmont Wellington Elementary School, by Jonathan Levi Architects
- Billerica Parker Elementary School, by Symmes Maini & McKee Associates
- Douglas Elementary School, by DiNisco Design Partnership
- Berlin-Boylston Tahanto Regional Middle/High School, by HMFH Architects
- Duxbury Middle/High School, by Mount Vernon Group Architects, Inc.
- Wellesley High School, by Symmes Maini & McKee Associates
- Hampden-Wilbraham Minnechaug Regional High School, by Mount Vernon Group Architects

# Model School Task Force Meeting Final Summary of Comments

#### *Note:*

This document is a compilation of the various comments and suggestions made at the meeting on April 25 and May 23, 2012 for the MSBA's considerations. These comments are not coordinated and do not suggest a comprehensive policy; some comments are contradictory or may be inconsistent with others.

The Model School Task Force met on April 25 and May 23, 2012 to discuss ideas and recommendations for a Model School program that incorporates the current program's established goals. Task Force members made a number of suggestions for the MSBA's consideration, including the following:

- 1. Ensuring that all Model School designs closely track MSBA space standards by limiting oversized spaces or making that portion of the oversized space ineligible for reimbursement.
- Ensuring that Model School designs are functionally flexible in order to
  accommodate future changes in pedagogy and/or grade structures (an example of
  functionally flexible could include design considerations for future uses of spaces that
  may become obsolete such as computer labs re-purposed into research labs, foreign
  language labs, etc).
- 3. Defining a role for the Designer Selection Panel (DSP) in the pre-qualification of Model School designs.
- 4. Considering whether mechanisms should be in place to eliminate Model School designs from the list of pre-qualified Model Schools due to lack of use, non-compliance with newer building codes, or other reasons. Newer updated designs could potentially replace the original versions.
- 5. Requiring a feasibility study (Module 3 Preferred Schematic Study) to be conducted before inviting a District into the Model School program. At a minimum, the feasibility study should confirm that:
  - a. A new facility is the most cost-effective and educationally sound solution;
  - b. The District has developed a detailed educational plan;
  - c. The site will accommodate one or more of the Model School designs without substantial modification to the site or the design and construction; and
  - d. One or more of the Model School designs conforms with the requirements of the District's educational program, grade configurations, and enrollment without substantial modification to the design.

It was also suggested that the feasibility study could be performed by an MSBA "house doctor," technical services consultant to accelerate the study schedule and reduce any potential bias of the designer and/or District.

- 6. Reevaluating the 5 incentive reimbursement percentage points for participating in the program. The MSBA should consider whether it is appropriate to continue, reduce, eliminate, or modify the 5 incentive reimbursement percentage points that Districts receive for participating in the program. One suggested modification includes the implementation of a sliding scale of an additional 1 4% reimbursement points for meeting specific program goals such as:
  - a. Compliance with all categories of the MSBA space summary standards additional 1% reimbursement points.
  - b. Compliance with model school consultant fee standards additional 1% reimbursement points.
  - c. Compliance with a pre-determined bid date and a reasonable number of addenda additional 1% reimbursement points.
  - d. Compliance with limits on owner-directed change orders or change orders due to errors and omissions additional 1% reimbursement points.
- 7. Establishing criteria to allow **any** completed new, MSBA-funded school facility to be considered to serve as a pre-qualified Model School, with MSBA approval, based on MSBA review of attributes such as:
  - a. cost effectiveness
  - b. soundness of the design's educational programming
  - c. flexibility regarding future changes in pedagogy and/or grade configurations
  - d. energy efficiency and sustainability
  - e. post-occupancy evaluations
  - f. operational and maintenance qualities
  - g. Flexibility to be expanded or reduced in size to meet other enrollment capacities.
  - h. Acceptance by its users, based upon MSBA interviews with a representative sampling of its teachers, administrators, maintainers, parents and students

**END** 

#### **MEMORANDUM**

**TO:** Board of Directors, Massachusetts School Building Authority

**FROM:** Maureen G. Valente, Chief Executive Officer

John K. McCarthy, Executive Director, Deputy Chief Executive Officer

**DATE:** January 20, 2016

**RE:** Staff Recommendation to Remove Incentive Points for Model School Program

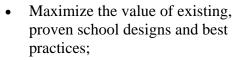
## Introduction

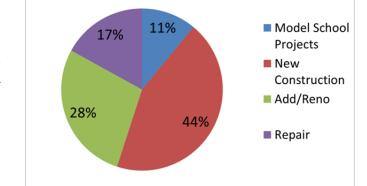
The Massachusetts School Building Authority (the "MSBA") initially developed the Model School Program (the "Program") in 2008 to effectively adapt and re-use the design of successful, recently constructed high schools, and has since expanded the Program to include elementary, middle and other combinations of grade configurations. To raise awareness of the Program, the MSBA Board of Directors authorized up to an additional five incentive points for school districts that participate in the Program. Model Schools are efficient in design and easy to maintain, contain optimal classroom and science lab space, can easily accommodate higher or lower enrollments, incorporate sustainable "green" design elements when possible, and are flexible in educational programming spaces.

To maximize the benefits of the program, the amount of design changes to the model school must be minimized. A potential candidate for the Program would need an available site that is free of constraints or other adverse conditions. Many of our districts are challenged by site availability, site size, and adverse site conditions; therefore, the Program is not a good fit for every district. In considering district requests for an invitation into the Program, the MSBA must review the available site and understand the enrollment and educational program of the applicant. That information then must be compared to the available model schools to ensure that the MSBA

invites districts that could benefit from and use a model school with minimum design changes.

Of the 170 Core Program grants issued since 2008, only 18 districts or 11% have participated in the Program. Seventeen districts have now successfully completed the construction of their new facilities and have benefitted from the Program and its stated objectives, which are to:





**Model School Projects as a Percentage** 

of Core Program Projects

- Encourage schools that reflect enduring and educationally sound designs;
- Allow for compressed project schedules and accelerated construction start times, thus reducing uncertainty of inflation in construction and project costs;

- Shorten and streamline the design process to reduce design fees;
- Enhance predictability of project costs and performance resulting in improved quality control and reduced change orders; and
- Provide an opportunity for districts to experience the model before selecting a design.

Although not suitable for all districts, MSBA staff considers the Program to be one of several types of programs that the MSBA offers to benefit the varied needs of districts. For instance, districts that have a large inventory of schools requiring updating or that are experiencing overcrowding and/or increasing enrollment may benefit from the compressed project schedule offered by the Program. To keep the model schools in the Program up to date, MSBA staff has issued a Request for Qualifications and is expecting responses by February 4, 2016.

## **Recommendation**

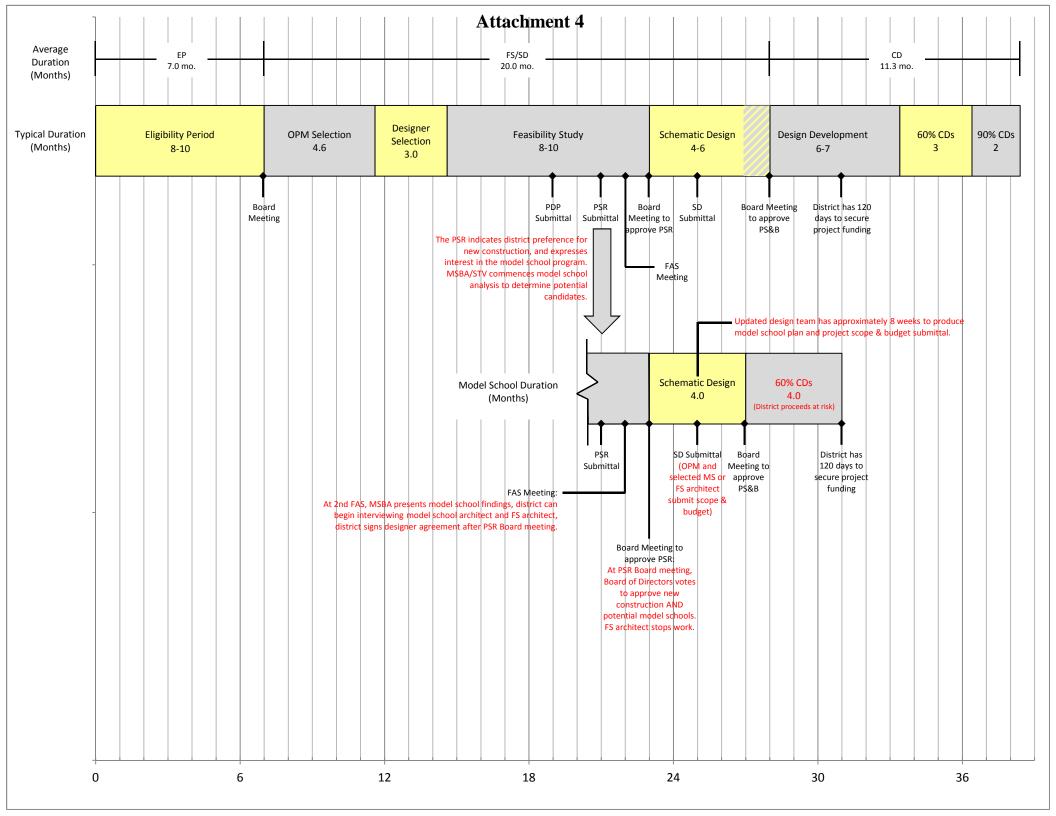
In November 2011, the MSBA, together with representatives from the Boston Society of Architects, convened a joint Model School Task Force (the "Task Force"). The Task Force set out to review the Program and to make recommendations for modifications to the existing Program that may be needed to better meet the MSBA's stated goals. The Task Force considered the benefits and challenges of the Program and noted the following regarding the incentive points:

Benefits	Challenges		
<ul> <li>May assist districts with local support</li> <li>Incentivizes districts to try a new approach or consider regionalization</li> </ul>	<ul> <li>Increases the MSBA grant at the expense of other districts and projects</li> <li>May distort the process by placing an undue emphasis on district share</li> <li>May minimize the importance of district specific educational programming</li> <li>May encourage new construction when it may not be the most appropriate solution</li> </ul>		

Of note, not all districts that have requested to be invited into the Program have received an invitation, and not all grants for districts in the Program have included the full value of the five additional incentive points. For example, pursuant to M.G.L. c. 70B, § 10, the MSBA's statute, 80% is the maximum reimbursement rate for any district participating in the MSBA's Grant Program. Consequently, districts that already have a reimbursement rate close to the 80% maximum rate, absent any Model School points, will likely not realize the full value of some or all of the Model School incentive points.

MSBA staff has reviewed the advantages and challenges associated with incentive points for the Program, along with the recommendations of the Model School Task Force. Based on this review, MSBA staff recommends that, effective for all districts receiving an invitation into Eligibility Period January 1, 2016 or later, the MSBA will no longer offer Model School Program incentive points for the following reasons:

- The Program is not available to all districts and, therefore, the incentive points are not available to all districts;
- The incentive points have served the MSBA's original intended purpose of raising awareness of the possibility of using a model school design; and
- The reallocation of MSBA funding from the current Model School incentive point structure may offer the MSBA opportunities to allow for additional project invitations into the Core Program and the Accelerated Repair Program, or may allow the MSBA to offer a new program.



# Model School Evaluation Template Massachusetts School Building Authority

(Insert School District)

**Proposed (Insert School Name) Study** 

#### **School Data**

Draft Submitted: Date

Prepared by: (MSBA Consultant Name) or

(Project Manager's Name) or (Project Architect's Name)

MSBA: (Name), Director of Capital Planning

(Name), Director of Project & Construction Management

(Name), MSBA Project Manager

#### **Study Scope**

MSBA has authorized the (School District) to conduct a feasibility study to determine the most cost-effective and educationally-sound solution to the deficiencies at the existing (School Name) facility. The District has requested and the MSBA has agreed that the MSBA will consider whether a new model school might be an appropriate solution. For all options, including renovation, renovation and addition, new construction, and model school, the MSBA and the District have mutually agreed upon a design enrollment of (Design Enrollment) students in Grades (Grade Configuration).

The MSBA has contracted with (Consultant Name) as a technical services consultant to perform the role of "House Doctor" in accordance with the current Model School Program policy. The scope of the House Doctor's study is to examine the potential for implementing the Model School Program for the proposed school using one or more of the existing approved models.

#### The study includes:

- Program review for programmatically similar and physically appropriate models for further study.
- Review of selected Model School Program plans to determine the extent of design adaptation required to adapt the model to the proposed program.

• Site evaluation of selected model schools, as modified, to determine their potential fit on the proposed site and determine the extent of required site adaptation.

The Model School Program may offer several benefits to the Districts and to the MSBA.

- Proven designs meeting certain criteria will contain many best practices that should be perpetuated in school design.
- Adaptation of an existing design, versus development of a completely new design, will streamline the design process and result in reduced design fees.
- The pre-construction schedule will be compressed and will accelerate the start of construction and thus reduce the impact and uncertainty of inflation in construction costs on the overall cost of the project.
- Except for unforeseen site conditions, re-use of the design should limit construction change orders.

When a model school is determined to require extensive adaptation, the potential benefits may not be fully realized, and an original design will better serve the project. The MSBA's review will determine if a proposed project for a school district will benefit from the Model School Program, and if the model serves the project with a limited amount of adaptation.

## **Capacity Review**

The first evaluation of the model options is to review enrollment capacity and grade structure. Models selected for the Model School Program have demonstrated flexibility to be adaptable within +/- 20% of the original model enrollment. Models that fall in the capacity range will receive further consideration. Models outside the range will be excluded from further review.

# **Capacity Analysis Table**

Approved Design Enrollment	<pre># Pre-K Enrollment (if applicable): xx</pre>				
Planning Low Range - 20%	#				
Planning High Range +20%	#				
Approved Grade Structure	(E.G. PK-	8)			
Review Planning Range	Model	Model	Below	Within	Above
	Enrollment	Grade Str.	Range	Range	Range
<b>Model Options Enrollment</b>					
With Similar Grade Structure					
Option 1 - ABC School	XX	e.g. k-8	Check appropriate box		
Option 2 - XYZ School					
Option 3 - Etc.					
Option 4					
Option 5					
Option 6					
Option 7					
Option 8					

**Model Selection** Models identified for further review based on capacity are:

- Model School Name ABC
- Model School Name XYZ

# **Program Review**

The program review compares the proposed school space program as presented in the approved preferred scheme against the MSBA Guidelines for a school with a similar grade structure and identical enrollment. The analysis compares the proposed school program to the models schools selected for study.

# **Program Analysis Table**

	MSBA Gu	ideline Proposed Selection 1 Selection 2		tion 2			
	Guideline	Variance		Model	Variance	Model	Variance
F							
Enrollment	-	-	-	-	-	-	-
Net Square Feet	-	-	-	-	-	-	-
Gross Square Feet	-	-	-	-	-	-	-
Ed Spaces							
Core Academic	-	-	-	-	-	-	-
General Classrooms							
Science Labs							
SPED	-	-	-	-	-	-	-
Art & Music							
Art Classroom							
Music/Band/Chorus							
Health & Phys. Ed.	-	-	-	-	-	-	_
Gymnasium							
Vocations & Technology							
Tech Classrooms							
Tech Shops							
Media Center	-	-	-	-	-	-	-
Auditorium/Drama							
Auditorium							
Computer Labs							
Dining & Food Service	_	-	-	-	-	-	-
Custodial/Maint.							
Admin. & Guidance							
Medical							
Totals							

## **Conclusion of Program Review:**

#### Plan Review – Conformance to the District's Educational Plan

Develop a Narrative based on the following minimum criteria for each model selection.

For each component, describe the intent of the educational plan and how the proposed model school supports or does not support the intent of the plan.

#### A. Academic Program Suitability

- Building Organization (Program Zoning/Proximities)
- Classroom/Lab/Academic Layout
- Academic Support Space
- SPED Program Layout
- Art and Music
- Vocations

#### B. Core Facilities

- Admin/Access Control
- Gymnasium & Outdoor Play Space
- Dining and Food Service
- Media Center
- Computer Labs
- Auditorium and Public Assembly
- Public/After School Programs
- Support Services, Custodial, Deliveries and Trash Removal

#### **Site Review**

Develop a Narrative based on the following minimum criteria for each model selection.

For each component, describe the intent of the educational plan and how the proposed model school supports or does not support the intent of the plan.

#### A. Site Qualities

- Topography
- Building Fit and Orientation
- Site Access
- Soil Conditions

#### **Conclusion Matrix**

## Summary Model School Evaluation

Model	Educational Program Variances	Building Design Adaption	Site Adaptation
	Describe Variance	Describe Adaptation	Describe Adaptation
SELECTION	Describe Variance	Describe Adaptation     Describe Adaptation	Describe Adaptation     Describe Adaptation
	Describe Variance	Describe Adaptation	<ul> <li>Describe Adaptation</li> </ul>
Rating	Minor/Moderate/Major	Minor/Moderate/Major	Minor/Moderate/Major
	<ul> <li>Describe Variance</li> </ul>	<ul> <li>Describe Adaptation</li> </ul>	<ul> <li>Describe Adaptation</li> </ul>
SELECTION	<ul> <li>Describe Variance</li> </ul>	<ul> <li>Describe Adaptation</li> </ul>	<ul> <li>Describe Adaptation</li> </ul>
	Describe Variance	<ul> <li>Describe Adaptation</li> </ul>	<ul> <li>Describe Adaptation</li> </ul>
Rating	Minor/Moderate/Major	Minor/Moderate/Major	Minor/Moderate/Major

#### **EDUCATIONAL PROGRAM VARIANCE**

#### **Minor Program Variance**

- The educational program and educational plan for the proposed school substantially fits in the model.
- The organization and distribution of classrooms, educational spaces, core areas, and administration conform to the stated educational plan.
- Only Minor Design Modifications are required to adapt the model school to the district's educational plan and program.

#### **Moderate Program Variance**

- While there are variances between the proposed model and the educational plan, they do not compromise the stated educational plan and objectives of the district.
- Moderate Design Modifications are required to adapt the model school to the district's educational plan and program.

## **Major Program Variance**

- The educational program for the proposed school does not fit the model.
- The organization and distribution of the classrooms and educational spaces do not conform to the stated educational plan needs.
- The model school would require Major Design Modifications to be adapted to meet the proposed educational program.

#### **BUILDING DESIGN ADAPTATION**

#### **Minor Design Modifications**

Addition or removal of a wing, bay, or structurally isolated element of a building with no impact on space within the impacted area or adjacent areas (example – removing a bay from a gymnasium or adding an additional classroom block. The change is limited to the add/deletion only).

#### **Moderate Design Modifications**

 Redesign, addition, or removal of wing or bay or redesign of departments with spatial impacts limited to the impacted wing, bay or department only. Adjacent spatial relationships are not impacted. (example – adding space to a media center or library that requires redesign of those areas only with no impact on adjacent departments).

#### **Major Design Modification**

 Redesign, addition, or removal of a wing or bay or redesign of departments or components that require reordering of spaces and spatial relationships in the impacted program element as well as revisions to adjacent program elements and large areas of the plan. (example – adding classrooms or media center space that requires altering the design of adjacent departments or reconfiguration to meet site limits/topography).

#### **SITE ADAPTATION – Ratings:**

#### **Minor Site Modifications**

- Modifications or grading of the topography of the site is limited to not more than three vertical feet over the total horizontal span of the proposed building design.
- Limited modifications to stairs and/or ramps.
- No requirement to break or step the model to conform to site conditions.
- No clearing or major site remediation or modification is required to accommodate the proposed design.

#### **Moderate Site Modifications**

- Modifications or grading of the topography of the site is limited to three to six vertical feet over the total horizontal span of the proposed building design.
- Moderate modifications to stairs and/or ramps.
- Requirement to break or step the floors of the model to conform to the site condition is limited to a total of three vertical feet.

#### **Major Site Modification**

- Modification or grading of the topography of the site is greater than six vertical feet over the total horizontal span of the proposed building design.
- Or the requirement to break or step the floors of the model to conform to the site conditions is greater than a total of three vertical feet.
- Soil conditions require a major modification of the model's foundation design.

#### Conclusion