REQUEST FOR DESIGNER SERVICES (RFS)

City of Medford , MA
Medford Public Schools

[Medford High School]

July 30, 2025

Invitation: The ***City*** of Medford ("Owner") is seeking the services of a qualified "Designer" within the meaning of M.G.L. Chapter 7C, Section 44 to provide professional design and construction administration services for the Medford High School in Medford, Massachusetts. Selection of a Designer will be made by the Designer Selection Panel of the Massachusetts School Building Authority ("MSBA") in accordance with the MSBA's Designer Selection Procedures.

The Owner is seeking design services to conduct a Feasibility Study which will include the development and evaluation of potential alternative solutions and continue through the Schematic Design Phase of the preferred alternative initially. Subject to the acceptance of a Project by the MSBA and further subject to adequate funding authorized by the Owner, the contract between the Owner and the Designer may be amended to include continued designer services through design development, construction contract documents, bidding, award of construction contract(s), construction administration, final closeout and warranty period of the potential Project. (**See**: Designer Services Contract Amendment for Design/Bid/Build and Designer Services Contract Amendment for CM-at-Risk). A potential Project may include a renovation of the existing school, a renovation of and addition to the existing school and/or new construction.

The estimated construction budget for a potential Project may range from ***$200,000,000 to $600,000,000*** depending upon the Preferred Schematic solution that is recommended by the Owner and accepted by the MSBA. The Fee for Basic Services will be negotiated.

MBE WBE and VBE/SDVOBE Participation Goals for the Designer Services Contract:

The Municipal Construction Affirmative Marketing Program (MCAMP) requires Municipalities to incorporate Minority Business Enterprise (MBE), Women Business Enterprise (WBE) and Veteran Business Enterprise (VBE)/Service-Disabled Veteran Business Enterprise (SDVOBE) goals into both their design and construction procurements for municipal contracts for the construction, reconstruction, alteration, remodeling, repair, or demolition of any public building by any city or town that includes funding provided in whole or in part by the Commonwealth, such as funding under the Massachusetts School Building Authority (MSBA), funding in any legislative appropriation, grant awards, reimbursements, municipal commitments to use state funds, and the like. To count towards participation, the business must be a Supplier Diversity Office (SDO) certified WBE, MBE or VBE/SDVOBE at the time of contract execution.

To ensure goals are set properly, Municipalities should contact Meghan Costa, the SDO's Construction Program Coordinator, as soon as possible for assistance from SDO and DCAMM in goal setting. Ms. Costa can be reached at meghan.costa@mass.gov or at (617) 872-4064.

The MBE, WBE, and VBE/SDVOBE must be selected from those categories of work identified in Item F of this RFS or be assigned to tasks required under Basic Services as specifically set forth in the Contract for Designer Services as amended. Applicants are strongly encouraged to utilize multiple disciplines and firms to meet their separate MBE, WBE, and VBE/SDVOBE participation goals. Consultants to the prime Designer can team within their disciplines in order to meet the separate MBE, WBE, and VBE/SDVOBE participation goals but must state this relationship on the organizational chart (Section 6 of the application form). Applications from MBE, WBE, and VBE/SDVOBE firms as prime designers are encouraged. Where the prime Designer is an SDO certified MBE, WBE, and VBE/SDVOBE, the Designer must bring a reasonable amount of participation by a firm or firms that hold the certification which is not held by the prime Designer on the project.

The Goals **must** be established in the Section below prior to publication of this RFS.

MBE,WBE and VBE/SDVOBE Participation Goals for the Designer Services Contract:

1. MBE Participation Goals: 5.4%
2. WBE Participation Goals:10.4%
3. VBE/SDVOBE Participation Goals: 3.0%

For additional information on Designer qualifications see Sections E. and F. in this RFS.

A. Background:

The City of Medford, located in the Greater Boston area, is a dynamic and growing community that places a strong emphasis on educational excellence. The district is committed to providing an inclusive and innovative learning environment with a focus on preparing students for success in a rapidly changing world.

The Medford High School, established in 1970, has served as a cornerstone of the community's educational infrastructure. However, over time, the building has become increasingly outdated and no longer meets the evolving needs of students, educators, or the broader community. The facility's aging systems, limited space, and lack of modern learning environments have prompted the City to pursue this project with the MSBA to study replacement, significant renovation and/or improvement to the high school campus.

The Medford High School and Medford Vocational Technical High School complex was constructed during the late 1960s and opened in the fall of 1970. From its opening until 2017 it housed two distinct schools, Medford High School and Medford Vocational Technical High School. In 2017 the Medford School Committee voted to merge the two schools into one comprehensive high school. But despite the forward-looking vision aimed at establishing one flagship school to serve as the epicenter of public education for the Medford community, the facility is designed for the delivery of instruction in a bygone era, namely the early 1970s. The challenges yielded by its antiquated design have been

exacerbated with increasing severity by infrastructure that ranges from deteriorating to inoperable. MPS envisions Medford High School as a comprehensive high school with a broad array of academic programming and a host of vocational educational programs sanctioned under M.G.L. Ch. 74. But the 55-year-old facility housing MHS is an obstacle to optimal learning conditions.

The Medford High School Building Committee (MCHSBC) is comprised of a diverse group of stakeholders, including elected officials, city officials, school district representatives, and community members with a variety of backgrounds. The Committee's primary mission is to oversee the planning and execution of the Medford High School project, ensuring that it meets the academic, social, and safety needs of students. The Committee has broad support to also pursue expansion of its portfolio of Chapter 74 programs (see attached Ch74 Viability form for current and proposed programs), its early childhood programs, and to co-locate the current Curtis-Tufts program, which is an alternative high school (see attached Educational Profile for space needs and programming vision) to increase access to student activities for students at the Curtis-Tufts.

The district's grade configuration includes elementary schools (Grades K-5), middle schools (Grades 6-8), and the high school (Grades 9-12). The existing high school facility now serves approximately 1,200 students and is expected to see future growth. The Medford High School campus also houses athletic facilities, fine and performing arts spaces, and administrative offices that serve the school community and the community at large.

The district is also pursuing consolidation of our early childhood programming into a single location to alleviate space concerns at our four elementary schools. Currently and on average, the district runs enrollment at about 130-140 students. Through the years, we have had to relocate programs due to space constraints and enrollment shifts. The preschool programs began at Medford High School, were shifted to all 4 elementary schools and now are shifting again to only be located in 2 elementary buildings (Brooks and Missituk). The Missituk is housing the majority of classrooms as they have the space and K-5 enrollment capacity to handle it. (Side note, we just discussed enrollment discrepancies in our elementary schools at School Committee subcommittee and regular School Committee meetings. Happy to share the link from our website regarding that meeting/discussion) We have also seen an increase in the need of care within our preschool programs, which has increased the need for specialized services. It is for these reasons, the discussions about self-containing preschool programming is so active. This would allow for a pooling and sharing of specialized service providers, the associated equipment and materials that accompany such staff, and the creation of targeted support for both teachers and students. Additionally, we currently house 7 preschool programs across the district. Each classroom contains both students with disabilities (IEP) and students without disabilities (community students). We would like to increase the number of students we can provide preschool programming to districtwide. As such, our Educational Profile cites an increased proposal to 11 classrooms. This would allow an increase of enrollment to about/up to 200 students.

As part of the ongoing effort to upgrade the district's infrastructure, the Medford Public Schools submitted a Statement of Interest (SOI) to the Massachusetts School Building Authority (MSBA), highlighting the need for a comprehensive solution to address the building's shortcomings. The accepted SOI serves as a reference for the current project and outlines the key areas of concern, such as structural integrity, accessibility, energy efficiency, and technology integration. The project aims to not only enhance the learning environment for students but also to ensure that the school can serve the community for generations to come.

This Request for Services seeks to engage a qualified designer who can contribute to the success of

this transformative project, providing expertise in design, construction, and project management. The goal is to create a state-of-the-art educational facility that fosters creativity, collaboration, and academic excellence and do the project with substantial community input from the community at large and specifically from students and staff who will work, learn, and thrive in the new building.

B. Project Goals and General Scope:

On or about ***April 13, 2023***, the Owner submitted a Statement of Interest (Attachment A) to the MSBA for ***(Medford High School)***. The MSBA is an independent public authority that administers and funds a program for grants to eligible cities, towns, and regional school districts for school construction and renovation projects. The MSBA's grant program is discretionary, and no city, town, or regional school district has any entitlement to any funds from the MSBA. At the ***February 26, 2025*** Board of Directors meeting, the MSBA Board voted to issue an invitation to the Owner to conduct a feasibility study for this Statement of Interest to identify and study possible solutions and, through a collaborative process with the MSBA, reach a mutually-agreed upon solution. The MSBA has not approved a Project and the results of this feasibility study may or may not result in a Project approved by the MSBA.

It is anticipated that the feasibility study will review the problems identified in the Statement of Interest at the Medford High School. The Feasibility Study shall include a study of all alternatives and contain all information required by 963 CMR 2.10(8) and any other applicable rules, regulations, policies, guidelines and directives of the Authority, including, but not limited to, a final design program, space summary, budget statement for educational objectives, and a proposed total project budget. The Schematic Design shall include, but not be limited to, the information required by the Authority's Feasibility Study Guidelines, including, but not limited to, a site development plan, environmental assessment, geotechnical assessment, geotechnical analysis, code analysis, utility analysis, schematic building floor plans, schematic exterior building elevations, narrative building systems descriptions, US Green Building Council's LEED for Schools Rating System (LEED-S) scorecard, outline specifications, cost estimates, project schedule and proposed total project budget.

Medford High School currently serves a combined 1,210 students in Grades 9 - 12. We also support students in Project Transition aged 18-22. Over 50% of these high school students are CTE students. Additionally, MHS houses a Pre-K program that includes 100 students and a day care for children ages 2 months to 5 years that has an enrollment of 74 students.

As a result of a collaborative analysis with the MSBA of enrollment projections and space capacity needs for the Medford High School, the City of Medford hereby acknowledges and agrees that the design of the proposed project at the Medford High School shall be based on an enrollment of no more than 1,395 students in grades 9-12, with the potential addition of district-wide Pre-K. The District would like to include space for district-wide Pre-K and the District's therapeutic high school program, the Curtis-Tufts School. The enrollment of the Curtis Tufts fluctuates depending on student need with a range of 20-40 students
If this configuration is determined to be the Preferred Solution, the District will be required to establish in the Preferred Schematic Report the proposed future use or disposition of any existing spaces vacated or otherwise repurposed by this proposed project. The District will also be required to illustrate that the Preferred Solution has been approved by the School Committee and necessary District officials. Further, the MSBA will require a written plan from the District, describing the process for determining local support for this potential configuration.

It should also be known that the MSBA's enabling legislation, M.G.L. c. 70B, and the MSBA's regulations, 963 CMR 2.00 et seq. specifically address the issue of past MSBA-funded projects. Pursuant to these requirements and depending on the District's ultimate plan for the existing Medford High School, which was the subject of an MSBA-funded Science Lab Initiative renovation project, the MSBA may recover a pro-rated portion of the financial assistance that the District received under a previous grant. The substantial completion of the prior project at the existing Medford High School was on July 18, 2014. The exact amount to be recovered will be established at the conclusion of Module 4 – Schematic Design.

Project objectives under consideration by the Owner include:

- ***Consolidation of the high school and vocational school into one comprehensive high school***
- ***Identification of community concerns that may impact study options;***
- ***Inclusion of District wide Pre-K as a part of the High School project***
- ***US Green Building Council's LEED for Schools (LEED-S) Rating System qualification and/or WELL certification and analysis of potential to be a Zero Net Energy building***
- ***Life cycle cost analysis and life cycle cost assessment of operating the school as it relates to future operational budgets***
- ***Evaluation of CM-at-Risk Delivery method including a final recommendation***
- ***Vetting potential alternate sites for construction of a new high school facility***
- ***Site adjustments required to increase the number of egresses from the property to the public roads if the new project remains in place***
- ***Update survey and existing condition information of buildings on the Medford High School site including any hazardous materials***
- ***Provide design alternatives for renovation, addition/renovation, and new construction options for a high school to meet educational specification of the SBC and the MSBA.***
- ***Provide schedule, construction cost estimate, operating cost estimate and life cycle/sustainability analysis for each option.***
- ***Constraints of the District – assumed that school will be in session on site for duration of project so phased construction and possible use of swing space will be required.***
    - ***Planning to ensure learning continuity for all students, and particularly for our vocational programs***
    - ***Purchase or leasing of offsite land/buildings and/or modular buildings may also be considered.***
    - ***Providing and maintaining a secure and positive educational environment during construction.***
    - ***Experience with phased construction projects.***

C. Scope of Services:

The required scope of services is set forth in the MSBA's standard Contract for Designer Services (Contract), a copy of which is attached hereto and incorporated herein by reference. If the Owner decides to proceed with the Project beyond the Schematic Design Phase and when the project delivery method is decided (Design/Bid/Build or Construction Manager at Risk), the Contract will be amended accordingly. Copies of Designer Services Contract Amendments for Design/Bid/Build and Construction Manager at Risk are also attached hereto and incorporated herein by reference. The Designer's Basic Services consist of the tasks

described in the Contract for Designer Services as amended including all investigative work (to the extent provided for in the Contract), feasibility study, schematic design, and, at the Owner's option, design work, preparation of construction documents, bidding period administration, construction administration, and other related work reasonably inferred in the opinion of the Owner and the Authority as being necessary to meet the project's stated scope and goals.

This RFS will be appended to and become part of the Contract for Designer Services. Any Designer selected as a result of this RFS will be required to execute the Contract for Designer Services and applicable amendment that are attached hereto.

In lieu of the minimum professional liability insurance specified in Article 15, the successful Respondent will be required to provide a certificate of professional liability insurance, at the time of contract execution, indicating minimum coverage in the amount of $3,000,000 per claim and $3,000,000 annual aggregate for the Designer and $2,000,000 per claim and $2,000,000 annual aggregate for Consultants.

Basic Services are defined in Article 7 of the Contract in Attachment B.

Extra and reimbursable expenses are defined in Articles 8 and 9 of the Contract in Attachment B.

D. Project Schedule:

Work under this RFS is divided into the Project Phases as listed in Article 7 of the Contract as amended and as may be augmented in this RFS. Each Project Phase will consist of one or more required submissions, and may include site visits, meetings with the Owner, Owner's Project Manager, the Authority and others, and other tasks as described.

The milestone dates listed below are estimates only. Actual dates may vary depending upon the agreed upon solution, the extent of required document revisions, the time required for regulatory approvals, and the construction contractor's performance. Such variances will not, in and of themselves, constitute a justification for an increased Fee for Basic Services.

Milestone	**Projected Date**
Designer Contract Executed……	November 7, 2025
MSBA Board of Directors Meeting – Preferred Schematic Report Approval…….	June 2026 (Date TBD)
MSBA Board of Directors Meeting - Project Scope and Budget Approval……	February, 2027 (Date TBD)
Feasibility Study Agreement expiration……..	August 28, 2027
Local Project Funding Authorization ……..	March – April 2027 (Date TBD)
Construction Start……	April 2028 (TBD)

Substantial Completion of Construction……. June 2030 (TBD)

Move-In……... July 2030 (TBD)

*Construction duration subject to change based on final project design

E. Minimum qualifications:

Selection will be made by the MSBA Designer Selection Panel in accordance with the Authority's Designer Selection Procedures, attached hereto as Attachment E. The Respondent must certify in its cover letter that it meets the following minimum requirements. Any Respondent that fails to include such certification in its response, demonstrating that these criteria have been met, may be rejected without further consideration. To be eligible for selection, the Designer must meet **all** of the following qualifications.

1. Be a qualified Designer within the meaning of M.G.L. Chapter 7C, Section 44, employing a Massachusetts registered architect responsible for and being in control of the services to be provided pursuant to the Contract.

   **Please refer to M.G.L. Chapter 7C, Section 44 for the definition of Designer. In M.G.L. Chapter 7C, Section 44, "registered" means registered in the Commonwealth of Massachusetts.*

2. The Massachusetts registered architect responsible for and in control of the services to be provided has successfully completed the Massachusetts Certified Public Purchasing Official Program ("MCPPO") seminar "Certification for School Project Designers and Owner's Project Managers" as administered by the Office of the Inspector General of the Commonwealth of Massachusetts, and must maintain certification by completing the "Recertification for School Project Designers and Owner's Project Managers" seminar every three years thereafter. Proof of recertification or registration in the next recertification seminar for which space is available must be provided.

3. Applicants shall subcontract with VBEs, SDVOBEs, MBEs and WBEs, as required by the State Funded Municipal Construction Affirmative Marketing Program General Guidelines. Applicants must include a reasonable representation of VBEs, SDVOBEs, MBEs and WBEs that meet or exceed the SDO participation goals established by the District for this Project.

F. Selection Criteria:

In evaluating proposals, the Owner and Designer Selection Panel will consider the members of the proposed design team either as Basic or Extra Services. Identify those member(s) of the proposed design team who will be responsible for the following categories of work: (Firm's name, individual's name and professional registration or license number, as applicable, must be listed in the application for each category of work, as well as whether the firm is SDO certified as an MBE/WBE/VBE/SDVOBE.

1. ***Architecture***
2. ***Educational Programming***
3. ***Civil Engineering***
4. ***Landscape Architecture***
5. ***Structural Engineering***

6. ***Fire Protection Engineering***
7. ***Plumbing Engineering***
8. ***HVAC Engineering***
9. ***Electrical/Lighting***
10. ***Data/Communications***
11. ***Environmental Permitting***
12. ***Geotechnical Engineering***
13. ***Geoenvironmental Engineering***
14. ***Hazardous Materials***
15. ***Cost Estimating***
16. ***Kitchen/Food Service Consultant***
17. ***Laboratory Consultant***
18. ***Acoustical Consultant***
19. ***Specifications Consultant***
20. ***Library/Media***
21. ***Technology Consultant/Audio Visual Consultant***
22. ***Theatrical Consultant***
23. ***Sustainable/Green Design/Renewable Energy Consultant***
24. ***Code Consultant***
25. ***Accessibility Consultant/Universal Design Consultant***
26. ***Traffic Consultant***
27. ***Furniture, Fixtures and Equipment Consultant***
28. ***Site Surveying***
29. ***Security Consultant***

**** N.B. –**

Applicants must address each category of work listed above in their application whether it is to be performed by in-house staff or by sub-consultant(s).

The members of the team for each of the categories of work listed above must be identified including the firm's name, individual's name and professional registration or license number, as applicable, as well as whether the firm is SDO certified as an VBE, SDVOBE, MBE and/or WBE.

Failure to address <u>each</u> category may result in the elimination of the applicant from consideration on this project.

Applicants should not list any consultants other than those for the categories of work listed above.

The VBE/SDVOBE/MBE/WBE enterprises must be selected to perform services addressing the categories of work listed above or be assigned to tasks required under Basic Services as specifically set forth in the Contract for Designer Services as amended. Consultants other than those proposed for the categories of work listed above or required to perform Basic Services may not be used for purposes of meeting VBE/SDVOBE/MBE/WBE requirements. Applicants are strongly encouraged to utilize multiple disciplines and firms to meet their VBE/SDVOBE/MBE/WBE goals. Consultants to the prime Designer can team within their disciplines in order to meet the VBE/SDVOBE/MBE/WBE goals but must state this relationship on the organizational chart (Section 6 of the application form).

The Owner and Designer Selection Panel will consider the following additional criteria in evaluating proposals:

1. Prior similar experience best illustrating current qualifications for the specific project.
2. Past performance of the firm, if any with regard to public, private, DOE-funded, and MSBA funded projects across the Commonwealth, with respect to:
    a. Quality of project design.
    b. Quality, clarity, completeness and accuracy of plans and contract documents.
    c. Ability to meet established program requirements within allotted budget.
    d. Ability to meet schedules including submission of design and contract documents, processing of shop drawings, contractor requisitions and change orders.
    e. Coordination and management of consultants.
    f. Working relationship with contractors, subcontractors, local awarding authority and MSBA staff and local officials.
3. Current workload and ability to undertake the contract based on the number and scope of projects for which the firm is currently under contract.
4. The identity and qualifications of the consultants who will work on the project.
5. The financial stability of the firm.
6. The qualifications of the personnel to be assigned to the project.
7. Geographical proximity of the firm to the project site or willingness of the firm to make site visits and attend local meetings as required by the client.
8. Additional criteria that the MSBA Designer Selection Panel considers relevant to the project.

G. Proposal requirements

Persons or firms interested in applying must meet the following requirements:

1. Applicants must have an up-to-date Master File Brochure on file at the Massachusetts School Building Authority.

2. Applications shall be on "Standard Designer Application Form for Municipalities and Public Agencies not within DSB Jurisdiction (Updated July 2016)" as developed by the Designer Selection Board of the Commonwealth of Massachusetts. Applications (one original and **four (4) hard copies**, and two (2) digital copies in PDF format on separate USB flash drives) must be received on or before **3:00 PM, August 27, 2025**. Each electronic application file submitted in response to the RFS is to be no greater than 25MB. Applications must be completed using no smaller than the same font size as in the application (10 font Arial Narrow). Applications should be printed double-sided and spiral bound on the left short edge, landscape orientation, in order that the pages lie and remain flat when opened. Applications should not be provided with acetate covers. Applications must not exceed 100 pages, 50 sheets double-sided, from cover to cover. This page limitation is inclusive of the cover, cover letter, tab sheets and response to section 10 of the application. Electronic links to supplemental information are prohibited.

1. Applications must be accompanied by a concise cover letter that is a maximum of two pages in length. A copy of the cover letter should be attached to each copy of the application. The cover letter must include the certifications as noted in Section E of this RFS. (A copy of the MCPPO certification should be attached to the cover letter as well as any SDO letters.)

4. Applicants may supplement this proposal with graphic materials and photographs that best demonstrate design capabilities of the team proposed for this project subject to the page limitations as set forth in section 10 of the Standard Designer Application Form.

5. Four hard copies of the proposals shall be addressed to:

Fiona Maxwell, Chief Procurement Officer
Medford City Hall
85 George P. Hassett Drive
Medford, MA 02155Address
fmaxwell@medford-ma.gov

All electronic copies of the proposal should be uploaded to the LeftField Egnyte site linked below.

Upload to https://leftfieldpm.egnyte.com/ul/fY0kZewPmT

6. Proposals must be clearly identified by marking the package or envelope with the following:

[Medford High School]
"Name of Applicant"

7. All questions regarding this RFS should be addressed exclusively in writing, via email, to:

Matthew Gulino, LeftField LLC		***Fiona Maxwell, Chief Procurement Officer***
Owners Project Manager (OPM)	**AND**	***Medford City Hall***
mgulino@leftfieldpm.com		***fmaxwell@medford-ma.gov***

Questions are due by August 20, 2025 at 5 pm

H. Pre-Proposal Meeting

All interested parties are encouraged to attend a briefing session at Medford High School scheduled for **August 18, 2025, at 3:30PM**

I. Withdrawal

Applicants may withdraw an application as long as the written request to withdraw is received by the Owner prior to the time and date of the proposal opening.

J. Public Record

All responses and information submitted in response to this RFS are subject to the Massachusetts Public Records Law, M.G.L. c. 66, § 10 and c. 4, § 7(26). Any statements in submitted responses that are inconsistent with the provisions of these statutes shall be disregarded.

K. Waiver/Cure of Minor Informalities, Errors and Omissions

The Owner reserves the right to waive or permit cure of minor informalities, errors or omissions prior to the selection of a Respondent, and to conduct discussions with any qualified Respondents and to take any other measures with respect to this RFS in any manner necessary to serve the best interest of the Owner and its beneficiaries.

L. Rejection of Responses, Modification of RFS

The Owner reserves the right to reject any and all responses if the Owner determines, with the approval of the MSBA's Designer Selection Panel, that it is in the Owner's best interests to do so. This RFS does not commit the Owner to select any Respondent, award any contract, pay any costs in preparing a response, or procure a contract for any services. The Owner also reserves the right to cancel or modify this RFS in part or in its entirety, or to change the RFS guidelines. A Respondent may not alter the RFS or its components.

M. Additional Information

ATTACHMENTS:

Attachment A: Statement of Interest (Includes Chapter 74 Viability and MSBA Educational Questionnaire)

Attachment B: Designer Base Contract v February 2025(1)

Designer Contract Amendment CM-R v February 2025(1)

Designer Contract Amendment DBB v February 2025(1)

Designer Base Contract Exhibits v February 2025(1)

Attachment C: Standard Designer Application Form for Municipalities and Public Agencies not within DSB Jurisdiction (Updated July 2016)

Attachment D: Enrollment Letter and Enrollment Certification

Attachment E: MSBA Designer Selection Procedures
Attachment F: Certifications

End of Request for Designer Services

ATTACHMENT A
Statement of Interest

(District to Attach)

Medford Public Schools
489 Winthrop Street, Medford, Massachusetts 02155 Dr. Marice Edouard-Vincent, Superintendent of Schools

April 13, 2023

Massachusetts School Building Authority
% Statement of Interest/Core Program
40 Broad Street, Suite 500
Boston, MA 02109

Re: Statement of Interest - Medford High School - Core Program

To Whom it May Concern:

During the spring of 2022, in anticipation of submitting a Statement of Interest (SOI) for the MSBA's Core Program on behalf of Medford High School (MHS), the Medford Public Schools (MPS) retained the services of CREF, a real estate & facilities firm based in Boston, MA, with extensive experience in school construction. CREF and its partner agency Environmental Health & Engineering, Inc., based out of Newton, completed a joint environmental and facilities condition assessment of MHS. Based on the positive feedback we received in response to that SOI last year, and given the consistency and growing accumulation of the infrastructure-related challenges that we continue to face with our flagship school, we have again relied heavily on that report as well as our own analysis to provide thorough responses to the components of this 2023 SOI application.

This year's SOI was electronically submitted on April 13, 2023. The information derived from the aforementioned report is generally referenced in our SOI as the "CREF report." The CREF report is again attached hereto as an appendix to this SOI on the basis that its conclusions and assessments are consistent with the conclusions that MPS had reached in deciding to submit this latest SOI on behalf of our flagship school. Where appropriate, we have made note of the specific aspects of MHS's deteriorating infrastructure that have worsened in the course of the last year:

- While these challenges have been persistent over an extended period of time, the volume and urgency of the challenges have grown exponentially since the Medford Public Schools submitted its previous Statement of Interest and participated in the MSBA's senior study visit in October of 2022. This year three separate hallways have been forced to be shut down due to the detection of abnormal and potentially dangerous levels of asbestos attributable to broken floor panels.

- Despite the winter of 2022-2023 being relatively mild, the school's pattern of burst pipes has worsened with multiple major failures resulting in the flooding and forced closures of classrooms with costly and expedited repair projects again a near constant phenomenon. During the current school year alone, multiple vocational programs have seen major disruptions to their instructional sequencing due to significant leaks in their lab or shop

areas. Further, multiple guidance offices have been forced to temporarily relocate due to the persistence of the leaking during inclement weather.

- On multiple occasions during the first half of the 2022 - 2023 school year, school administrators and public safety officials were forced to respond to in-school emergencies for which the school's cavernous scale and deficient technologies posted obstacles both with respect to immediate response and subsequent investigatory steps. These incidents, which ranged from medical emergencies to two well-documented physical altercations between students, have laid bare the inherent safety and security deficiencies of Medford High School, as well as the detrimental effect the building has on the school's culture.

As we noted in the final notation box of the SOI, the Medford Public Schools are deeply grateful to the MSBA for the opportunity to be considered for the Core Program. If there is any additional information we can provide, please contact me at 781–393-2442.

Thank you again; we look forward to hearing from you.

Sincerely Yours,

Marice Edouard-Vincent

Dr. Marice Edouard-Vincent,
Superintendent

Massachusetts School Building Authority

Next Steps to Finalize Submission of your FY 2023 Statement of Interest

Thank you for submitting an FY 2023 Statement of Interest (SOI) to the MSBA electronically. **Please note, the District's submission is not yet complete if the District selected statutory priority 1 or priority 3**. If either of these priorities were selected, the District is required to mail the required supporting documentation to the MSBA, which is described below.

ADDITIONAL DOCUMENTATION FOR SOI STATUTORY PRIORITIES #1 AND #3: If a District selects Statutory priority #1 and/or priority #3, the District is required to submit additional documentation with its SOI.

- If a District selects statutory priority #1, Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of the school children, where no alternative exists, the MSBA requires a hard copy of the engineering or other report detailing the nature and severity of the problem and a written professional opinion of how imminent the system failure is likely to manifest itself. The District also must submit photographs of the problematic building area or system to the MSBA.
- If a District selects statutory priority #3, Prevention of a loss of accreditation, the SOI will not be considered complete unless and until a summary of the accreditation report focused on the deficiency as stated in this SOI is provided.

ADDITIONAL INFORMATION: In addition to the information required above, the District may also provide any reports, pictures, or other information they feel will give the MSBA a better understanding of the issues identified at a facility.

If you have any questions about the SOI process please contact the MSBA at 617-720-4466 or SOI@massschoolbuildings.org.

Massachusetts School Building Authority

School District Medford

District Contact David G Murphy TEL: (781) 393-2100

Name of School Medford High

Submission Date 4/13/2023

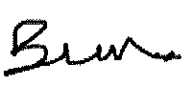
SOI CERTIFICATION

To be eligible to submit a Statement of Interest (SOI), a district must certify the following:

- ☑ The district hereby acknowledges and agrees that this SOI is NOT an application for funding and that submission of this SOI in no way commits the MSBA to accept an application, approve an application, provide a grant or any other type of funding, or places any other obligation on the MSBA.
- ☑ The district hereby acknowledges that no district shall have any entitlement to funds from the MSBA, pursuant to M.G.L. c. 70B or the provisions of 963 CMR 2.00.
- ☑ The district hereby acknowledges that the provisions of 963 CMR 2.00 shall apply to the district and all projects for which the district is seeking and/or receiving funds for any portion of a municipally-owned or regionally-owned school facility from the MSBA pursuant to M.G.L. c. 70B.
- ☑ The district hereby acknowledges that this SOI is for one existing municipally-owned or regionally-owned public school facility in the district that is currently used or will be used to educate public PreK-12 students and that the facility for which the SOI is being submitted does not serve a solely early childhood or Pre-K student population.
- ☑ Prior to the submission of the SOI, the district will schedule and hold a meeting at which the School Committee will vote, using the specific language contained in the "Vote" tab, to authorize the submission of this SOI. This is required for cities, towns, and regional school districts.
- ☑ Prior to the submission of the SOI, the district will schedule and hold a meeting at which the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body will vote, using the specific language contained in the "Vote" tab, to authorize the submission of this SOI. This is not required for regional school districts.
- ☑ The district hereby acknowledges that current vote documentation is required for all SOI submissions. The district will use the MSBA's vote template and the required votes will specifically reference the school name and the priorities for which the SOI is being submitted.
- ☑ The district hereby acknowledges that it must upload all required vote documentation on the "Vote" tab, in the format required by the MSBA. All votes must be certified or signed and on city, town or district letterhead.
- ☑ The district hereby acknowledges that this SOI submission will not be complete until the MSBA has received all required supporting documentation for statutory priority 1 and statutory priority 3. If statutory priority 1 is selected, your SOI will not be considered complete unless and until you provide the required engineering (or other) report, a professional opinion regarding the problem, and photographs of the problematic area or system. If statutory priority 3 is selected, your SOI will not be considered complete unless and until you provide a summary of the accreditation report focused on the deficiency as stated in this SOI. The documentation noted above must be post-marked and submitted to the MSBA by the Core Program SOI filing period closure date.

LOCAL CHIEF EXECUTIVE OFFICER/DISTRICT SUPERINTENDENT/SCHOOL COMMITTEE CHAIR (E.g., Mayor, Town Manager, Board of Selectmen)

Name of School	Medford High

Chief Executive Officer *	**School Committee Chair**	**Superintendent of Schools**
Breanna Lungo-Koehn	Breanna Lungo-Koehn	Marice Edouard-Vincent
Mayor		
		
(signature)	(signature)	(signature)
Date	Date	Date
4/13/2023 7:12:52 PM	4/13/2023 7:13:50 PM	4/13/2023 8:47:47 PM

* Local chief executive officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated to the chief executive office under the provisions of a local charter. Please note, in districts where the Superintendent is also the Local Chief Executive Officer, it is required for the same person to sign the Statement of Interest Certifications twice.

Massachusetts School Building Authority

School District Medford

District Contact David G Murphy TEL: (781) 393-2100

Name of School Medford High

Submission Date 4/13/2023

Note

MPS is grateful to MSBA for the opportunity to submit this Statement of Interest. Much of the information provided in this year's SOI is similar, except that the educational and financial implications of our flagship school's infrastructure is imposing increasing challenges to our ability to effective serve the interests of Medford students.

While these challenges have been persistent over an extended period of time, the volume and urgency of the challenges have grown exponentially since the Medford Public Schools submitted its previous Statement of Interest and participated in the MSBA's senior study visit in October of 2022.

This year three separate hallways have been forced to be shut down due to the detection of abnormal and potentially dangerous levels of asbestos attributable to broken floor panels.

Despite the winter of 2022-2023 being relatively mild, the school's pattern of burst pipes has worsened with multiple major failures resulting in the flooding and forced closures of classrooms with costly and expedited repair projects again a near constant phenomenon. During the current school year alone, multiple vocational programs have seen major disruptions to their instructional sequencing due to significant leaks in their lab or shop areas. Further, multiple guidance offices have been forced to temporarily relocate due to the persistence of the leaking during inclement weather.

On multiple occasions during the first half of the 2022 - 2023 school year, school administrators and public safety officials were forced to respond to in-school emergencies for which the school's cavernous scale and deficient technologies posted obstacles both with respect to immediate response and subsequent investigatory steps. These incidents, which ranged from medical emergencies to two well-documented physical altercations between students, have laid bare the inherent safety and security deficiencies of Medford High School, as well as the detrimental effect the building has on the school's culture.

Again, thank you again for your consideration.

The following Priorities have been included in the Statement of Interest:

1. ☐ Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of school children, where no alternative exists.
2. ☐ Elimination of existing severe overcrowding.
3. ☐ Prevention of the loss of accreditation.
4. ☐ Prevention of severe overcrowding expected to result from increased enrollments.
5. ☑ Replacement, renovation or modernization of school facility systems, such as roofs, windows, boilers, heating and ventilation systems, to increase energy conservation and decrease energy related costs in a school facility.
6. ☐ Short term enrollment growth.
7. ☑ Replacement of or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements.
8. ☐ Transition from court-ordered and approved racial balance school districts to walk-to, so-called, or other school districts.

SOI Vote Requirement

☑ I acknowledge that I have reviewed the MSBA's vote requirements for submitting an SOI, which are set forth in the Vote Tab of this SOI. I understand that the MSBA requires votes from specific parties/governing bodies, in a specific format using the language provided by the MSBA. Further, I understand that the MSBA requires certified and signed vote documentation to be submitted with the SOI. I acknowledge that my SOI will not be considered complete and, therefore, will not be reviewed by the MSBA unless the required accompanying vote documentation is submitted to the satisfaction of the MSBA. All SOI vote documentation must be uploaded on the Vote Tab.

SOI Program: Core
Potential Project Scope: Potential New School
Is this a Potential Consolidation? No

Is this SOI the District Priority SOI? Yes
School name of the District Priority SOI: 2023 Medford High

Is this part of a larger facilities plan? Yes

If "YES", please provide the following:

Facilities Plan Date: 2/24/2021
Planning Firm: Collins Center
Please provide a brief summary of the plan including its goals and how the school facility that is the subject of this SOI fits into that plan:

As noted in the Medford Public Schools previous SOI submission, new construction or a substantial building rehabilitation of MHS is a key component of the capital improvement plan and overall commitment to facilities planning that Mayor Breanna Lungo-Koehn released in February of 2021.

In partnership with the Collins Center at UMASS Boston, Mayor Lungo-Koehn unveiled an extensive review and implementation process by which all city facilities and capital assets are being examined and prioritized accordingly with respect to infrastructure improvements. Addressing the deteriorating infrastructure of MHS is also consistent with the maintenance and capital planning exercises performed by the Medford School Committee over the last several years. In these exercises, MHS represents a concentration of prospective costs and critical priorities that exceeds all other school facilities in the district.

At close to 600,000 square feet, MHS represents by far the largest and most complex facility in the city's portfolio, and with the exception of one building housing a small alternative high school program, it is the only school in MPS that was not part of an extensive school construction initiative that took place in the late 1990s and early 2000s. During that time, the City of Medford, in partnership with the Massachusetts School

Building Assistance Program, completed the construction of five state-of-the-art (at the time) school facilities housing six schools (three K-5s, one 6-8, and one K-5 and 6-8 that are housed in one building). As experienced by many other communities, Medford's largest school, MHS, was not addressed at that time. However, two decades later, MPS is eager to recapitalize its commitment to the students and residents of Medford through high-quality and reliable school infrastructure that is both conducive to and imperative for 21st century learning.

Annual discrepancies between essential maintenance and available funding have created a vicious cycle in which emergency plumbing and heating repairs alone have averaged between $60,000 and $100,000 and are being addressed on an ad hoc basis based on allocations from the municipal government's free cash. Despite the mayor and school committee's shared desire to establish a systemized process of capital planning, the operational implications necessitated by the building's deteriorating infrastructure have proven to be both too unpredictable to fully plan for and too steadily urgent to ignore.

These challenges were particularly pronounced over the course of the last year since the district's previous SOI was submitted. Multiple hallways have been forced into closure in order for emergency abatement work to be performed due unusual levels of asbestos being detected from panels being dislodged. This along with the well-documented history of burst pipes and electrical problems have only increased the urgency underlying the facilities master planning that the mayor's work with the Collins Center was intended to mitigate.

In addition to applicable federal and state code requirements (e.g., 521 CMR), the City of Medford has published a Climate Action and Adaptation Plan to which all future municipal projects are expected to adhere. The potential "domino effect" of standards that could not have been contemplated when the building was built in the late 1960s (e.g.,fire alarm and sprinkler installation in 90% of the building or hazardous material abatement) give rise to significant concerns around the cost of renovations and repairs. All of these are current factors in the city and district's deliberations over how to address the MHS situation, which are by far the most complicated and consequential of the Medford community's capital asset challenges.

Please provide the current student to teacher ratios at the school facility that is the subject of this SOI: 13 students per teacher

Please provide the originally planned student to teacher ratios at the school facility that is the subject of this SOI: 20 students per teacher

Does the District have a Master Educational Plan that includes facility goals for this building and all school buildings in District? No

Does the District have related report(s)/document(s) that detail its facilities, student configurations at each facility, and District operational budget information, both current and proposed? No

If "NO", please note that:
If, based on the SOI review process, a facility rises to the level of need and urgency and is invited into the Eligibility Period, the District will need to provide to the MSBA a detailed Educational Plan for not only that facility, but all facilities in the District in order to move forward in the MSBA's school building construction process.

Is there overcrowding at the school facility? Yes

If "YES", please describe in detail, including specific examples of the overcrowding.

Medford High School's enrollment in Ch. 74 vocational programming has increased dramatically since the merger of the two schools in 2017, rising from 22% of eligible students in school year 2017 - 2018 to over 45% of eligible students in school year 2022 - 2023. While MPS takes immense pride in exponential growth of these innovative educational offerings, it is posing a threefold challenge with respect to overcrowding:

(1) First, several programs, including but not limited to Electrical and Health Assisting, are being forced to restrict the number of available seats in their programs due to spatial limitations. Programs like these that need specialized

shop or lab space for students to have meaningful experiential learning are unable to benefit from space that is inefficiently repurposed. This has the potential to diminish the quality and the quantity of vocational offerings MHS can afford students, which has a compounding and negative impact on the overall educational culture the district aspires to establish.

(2) All career and technical educational offerings require related learning spaces to effectuate educational objectives. This includes classroom type settings for CTE instructors to convene their students and engage in thoughtful and penetrating dialogue in addition to shop and lab space. While the vocational wing of MHS was constructed originally as its own vocational school and therefore in some instances provides appropriate shop and lab square footage, the layout of the facility is wanting with respect to companion classroom space. This has resulted in programs (including but not limited to Biotechnology, Carpentry, and Culinary) lacking in this essential element in their students' learning environments.

(3) In addition to the district's inability to provide seats in existing programs commensurate with the level of interest, an analysis by the Metro North Workforce Board has urged the consideration of the development of additional Ch. 74 programs (including but not limited to Plumbing, Animal Science, Dental Assisting, and Information Support Services/Networking). Given the exploding popularity of the school's existing programs, and the interest being expressed in these and other prospective programs, there is a compelling basis to consider the development and adoption of additional programs in environments that are well situated for students to gain proficiency in these workforce-sustaining educational pathways.

Unfortunately, while there is a significant amount of underutilized square footage throughout MHS, the classroom/lab/shop space that could potentially be utilized through the expanded CTE programming and development of these types of programs does not exist. MHS has effectively reached its spatial capacity with respect to vocational programming just as the eagerness on the part of students to explore and participate in these programs has been growing. This is part of why MPS is so eager to explore changes to the infrastructure in which MHS is housed so that the structure of the building itself does not prove too rigid to allow for the appropriate and responsible expansion of educational opportunities for students.

Since the spring 2022 SOI was submitted, MPS has continued to examine how to grow and strengthen the district's award-winning career and technical educational programming. More efficient space and more modern infrastructure is a crucial determinant in that analysis.

Has the district had any recent teacher layoffs or reductions? No

If "YES", how many teaching positions were affected? 0
At which schools in the district?
Please describe the types of teacher positions that were eliminated (e.g., art, math, science, physical education, etc.).

Has the district had any recent staff layoffs or reductions? No

If "YES", how many staff positions were affected? 0
At which schools in the district?
Please describe the types of staff positions that were eliminated (e.g., guidance, administrative, maintenance, etc.).

Please provide a description of the program modifications as a consequence of these teacher and/or staff reductions, including the impact on district class sizes and curriculum.

Does not apply

Please provide a description of the local budget approval process for a potential capital project with theMSBA. Include schedule information (i.e. Town Meeting dates, city council/town council meetings dates, regional school committee meeting dates). Provide, if applicable, the District's most recent budget approval process that resulted in a budget reduction and the impact of the reduction to the school district (staff reductions, discontinued programs, consolidation of facilities).

The annual MPS budgeting process continually includes significant gaps in maintenance and repairs funding due to infrastructure demands of MHS taxing the district's operating budget well beyond any capacity that could be sustained. Emergency repairs to heating and plumbing systems average $60,000 - $100,000 per project. Capital repair projects are determined by Municipal Government based on the availability of Free Cash once that is certified, but that has led to fluctuating capacity and untenable uncertainty with respect to the district's capital planning. Ultimately the volume and scope of the maintenance and repairs necessary to keep the 50+ year old facility operating has proven increasingly unsustainable. This has continued to be true in the winter of 2022-2023 despite relatively mild temperatures.

General Description

BRIEF BUILDING HISTORY: Please provide a detailed description of when the original building was built, and the date(s) and project scopes(s) of any additions and renovations (maximum of 5000 characters).

The Medford High School and Medford Vocational Technical High School complex was constructed during the late 1960s and opened in the fall of 1970. From its opening until 2017 it housed two distinct schools, Medford High School and Medford Vocational Technical High School. In 2017 the Medford School Committee voted to merge the two schools into one comprehensive high school. But despite the forward-looking vision aimed at establishing one flagship school to serve as the epicenter of public education for the Medford community, the facility is designed for the delivery of instruction in a bygone era, namely the early 1970s. The challenges yielded by its antiquated design have been exacerbated with increasing severity by infrastructure that ranges from deteriorating to inoperable. MPS envisions Medford High School as a comprehensive high school with a broad array of academic programming and a host of vocational educational programs sanctioned under M.G.L. Ch. 74. But the 52-year-old facility housing MHS is an obstacle to optimal learning conditions.

To fulfill the educational objectives of the schools' merger, MPS is again submitting an SOI to the Massachusetts School Building Authority's (MSBA) Core Program to explore all avenues toward ensuring the infrastructure of the district's flagship school meets the instructional and operational needs of our students. The current infrastructure has frustrated efforts to merge the two schools, and increasingly, the facility itself is an impediment to executing the school's mission to afford students an engaging, meaningful and rigorous 21st century learning experience.

The facility's deteriorating infrastructure and inherent spatial challenges pose unnecessary barriers to the high-caliber educational experience that is achievable based on the school's commitment to a comprehensive secondary education for all students. As detailed elsewhere in this SOI, the poor condition of the facility casts liens on education as manifested in wildly fluctuating temperatures, variable air quality, and frequent disruptions to learning caused by malfunctioning, inoperative or inadequate infrastructure. Overall, the current MHS facility is continuing to detract from the quality of the education students are receiving and is serving as a detriment to the school's culture and climate.

In 2013 and 2014, MPS partnered with the MSBA to extensively renovate one floor of one wing of MHS. The renovated portion of the school includes 17 labs and classrooms constituting what is referred to throughout this SOI as "the science wing" or "science area." As noted throughout this SOI, the science area of MHS is the exception rather than the rule with regard to the functionality of its infrastructure and its overall conduciveness to high-caliber instruction.

As detailed elsewhere in this SOI, other renovations to the original facility have generally been limited only to a new EPDM roof in 1990 and boiler installations in 2008 and 2014.

The goal of a potential Core Program project through a partnership with MSBA would be to eliminate the near constant distractions that the facility is causing and to establish a more optimal 21st century learning environment that positions all MHS students to thrive during their secondary schooling years and in their post-secondary lives.

Since the district's previous submission, no renovations or repairs have occurred beyond the emergency repairs necessitated by abnormal levels of asbestos and multiple burst pipes that are referenced elsewhere in this year's SOI.

TOTAL BUILDING SQUARE FOOTAGE: Please provide the original building square footage PLUS the square footage of any additions.

570000

SITE DESCRIPTION: Please provide a detailed description of the current site and any known existing conditions that would impact a potential project at the site. Please note whether there are any other buildings, public or private, that share this current site with the school facility. What is the use(s) of this building(s)? (maximum of 5000 characters).

The campus of MHS does not share public or private space that would affect a potential project.

ADDRESS OF FACILITY: Please type address, including number, street name and city/town, if available, or describe the location of the site. (Maximum of 300 characters)

489 Winthrop Street
Medford, MA 02155

BUILDING ENVELOPE: Please provide a detailed description of the building envelope, types of construction materials used, and any known problems or existing conditions (maximum of 5000 characters).

Exterior and Envelope: The design of the MHS was conducted in accordance with the Commonwealth's "Structural Regulations of School Houses." It is a three-story, reinforced concrete structure with multiple low-slope roofs. The foundation construction consists of conventional concrete spread footings to support structural columns. The site walkways around the perimeter of the facility are beyond their useful life expectancy and have been determined to pose potential safety and accessibility challenges, specifically on the west elevation.

The school's envelope components are past their useful life and in need of replacement for both performance and aesthetic reasons. The existing single-pane operable, fixed windows and translucent fiberglass panels all fail to meet contemporary energy efficiency and security standards.

The roofing is antiquated and lacks proper insulation and sustainability elements in addition to opportunities for natural light. It further lacks appropriate protection against rainwater or the capacity to incorporate systems for grey-water use. This is one of several examples of how the facility lacks basic systems intended to maximize efficiency and is so antiquated that an attempt to incorporate modern technology aimed at increasing efficiencies would be untenable.

MHS is separated into quadrants (A, B, G, and H) by a ¾" wide expansion joint system. The flexible sealant used in the original construction has been presumed to contain hazardous materials, complicating any efforts toward improvement or replacement.

The building was found in the CREF report to most likely contain significant quantities of hazardous materials with an abatement or mitigation cost to exceed $10,000,000, not including replacement materials, labor or management fees. In addition, the CREF report found the building's energy utilization benchmarks to be alarmingly high with the building's 2021 EUI of 86.0 kBtu/ft2, or 77% higher than the national average of 48.5 kBtu/ft2 for K-12 schools as reported by CBECS. For MHS to meet Mass Save's energy efficiency target for Zero-Net Energy Buildings of 25 kBtu/ft2, energy intensity would have to be reduced by over 70%.

The exterior of the building superstructure consists of primarily reinforced concrete panels, brick veneer, and mechanically fastened concrete fins. The superstructure has not been significantly improved and was constructed with the original building in 1970-71.

The original exterior concrete wall assembly and fenestration has several punched openings for windows, doors, and vents. Unit ventilator supply and exhaust louvers populate all classroom locations throughout the facility, but experience frequent malfunctions, and many instances, have not been in working order for some time. The sealants around all original openings are in poor condition and failing in most locations.

All exterior assembly intersections (masonry to concrete in most cases) include similar exterior joint sealants original to the building's construction. The caulking at these typical locations are failing and are beyond their

useful life expectancy.

Door openings are enclosed by a mixture of metal door and doorframe assemblies and are sealed with exterior caulking of various types. Most of the openings in the building exterior date to original construction and there are no proximity card readers of any kind. All exterior and interior doors are locked manually by key, reflecting an obsolete system that is both economically inefficient and suboptimal from a security perspective.

At the auditorium, pool and areas surrounding the vocational programs, the exterior assembly includes semi-opaque fiberglass panels allowing minimal daylight into the building. These panels date to the school's original construction, but a study as far back as 2007 by Drummey Rosane Anderson, Inc., and others, noted the panels to be "in very poor condition, and need replacement." As noted in the CREF report, they are well beyond any useful life expectancy.

As stated in the CREF report, the information technology (IT) infrastructure has been periodically added to MHS throughout its 50+ year history, but the school's construction did not contemplate scaling technology, which is reflected in its systems' performance. The CMU block construction inhibits wireless communications and technologies. Modern specifications are unattainable absent major and cost prohibitive reconstruction. Makeshift IDF closets are not located in the optimal locations, do not have appropriate cooling/HVAC and do not have enough dedicated power to support the infrastructure. These deficiencies have and continue to cause power outages and other problems stemming from the ad-hoc nature of their installations (e.g., unshielded CAT5/6 cables running directly over equipment causing melting/breaks).

Has there been a Major Repair or Replacement of the EXTERIOR WALLS? NO
Year of Last Major Repair or Replacement:(YYYY) 1970
Description of Last Major Repair or Replacement:
N/A

Roof Section A
Is the District seeking replacement of the Roof Section? YES
Area of Section (square feet) 215000
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe)
EPDM covers the largest portion of the building.
Age of Section (number of years since the Roof was installed or replaced) 32
Description of repairs, if applicable, in the last three years. Include year of repair:
The main roof system is an EPDM material single ply construction. The original roof, completed in 1970, was replaced in 1990 and is approximately 215,934 SF in area. The EDPM roof systems are not pitched to drains except for the roof above the new science wing, which was the last major roofing project and occurred when that area of the building was renovated between 2013 and 2014. That newer section over the science wing is a PVC roof construction of approximately 40,000 square feet. Atypically, there is no 16" +/- high parapet at the main roof. The mechanical penthouse is in the central, 30 SF structural bay.

The EPDM roof is in poor condition. In an infrared roof survey prepared by The Garland Company in 2016, several areas were observed to have wet insulation below the rubber membrane. Ponding conditions are readily observable, which were documented in the Garland report. Several puncture holes and associated patching are observable as well. Per that 2016 Garland report, the EPDM roof is well beyond its useful life expectancy and a full replacement was estimated in 2016 to cost upwards of $2 million (2016 dollars), but that pricing did not include the costs of abatement of any hazardous materials within the scope of work.

The district's targeted repair strategies have carried and will continue to carry only a short life expectancy of 1-3 years and is not considered by MPS to be a cost-effective approach at this juncture.

Window Section A
Is the District seeking replacement of the Windows Section? YES
Windows in Section (count) 900

Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))
Single pane steel casement windows and translucent fiberglass panels at the pool, auditorium, and select areas of the vocational area of the building. Classroom windows are single pane casement style.
Age of Section (number of years since the Windows were installed or replaced) 52
Description of repairs, if applicable, in the last three years. Include year of repair:
There have been no comprehensive repairs. The building was constructed with approximately 900 windows throughout the facility. There have been no comprehensive windows replacement or repair initiatives to date. MHS's fenestration consists of single pane steel casement windows that are original to the building's 1960s-1970s era construction, along with translucent fiberglass panels at the pool, auditorium, and select areas of the vocational area of the building.. Classroom windows are single pane casement style windows. Cranks are mostly in working condition but require ongoing costly and tedious maintenance. Caulking and sealants are in poor condition and in need of immediate remediation and replacement. The CREF report referenced a 2007 study they reviewed in which the translucent fiberglass panels were noted as being in "very poor condition and in need of replacement at [that] time."

MECHANICAL and ELECTRICAL SYSTEMS: Please provide a detailed description of the current mechanical and electrical systems and any known problems or existing conditions (maximum of 5000 characters).

The main MHS mechanical room is in D Building and houses infrastructure for buildings A, B and D. The walls of the main mechanical room are painted concrete and CMU. Firestopping is incomplete on the wall elevations. The slab on grade is concrete with 3-4" equipment pads. Key pieces of equipment within the room included heat exchangers for buildings A, B and D; two decommissioned air handler units, domestic hot water tanks and pumps, boilers, electric motor control panels and transformers, the main chemical waste tank, the sprinkler standpipe servicing the new science wing on the third floor, and an obsolete and frequently malfunctioning pneumatic control system. All but the new domestic water equipment was installed at the time the building was constructed, in poor condition and beyond useful life expectancy.

In addition, significant amounts of water frequently pool on the floor. The origin of the water is believed to be a combination of equipment leaks and ground water seepage, which is of particular concern. The analysis in the CREF report is that its origin is possibly related to hydraulic pressure from below the slab system. That report recommended that the under-slab drainage system be assessed to confirm whether pockets of water or artesian wells are present below the building and are a contributing factor to the standing water in the main mechanical room.

As noted below, the overall condition of the boiler room and its boilers are considered adequate, but the impact of the relatively decent functioning boilers is significantly mitigated by the near decrepit conditions of the systems in the adjoining mechanical room, the main mechanical room, and its other auxiliary mechanical room, referred to as the E Building mechanical room. The overall condition of the transformers and generators in that room are in poor condition and beyond their useful life expectancy. In addition, the 20-year old compressor that is housed in the mechanical room adjoining the boiler room does not function properly and when coupled with the fail pneumatic system and the deteriorating thermostats throughout the facility results in a complete lack of temperature controls and the questionable air quality that has raised the ire of educators, students and visitors to the building.

With respect to the incinerator room, wall assemblies are painted CMU and concrete. Interior sealant joints are painted CMU with abutting concrete walls. The flooring is finished concrete. The incinerator has been decommissioned for over 40 years, however, MPS has identified no reports to assess the level of abatement completed.

Boiler Section 1
Is the District seeking replacement of the Boiler? NO
Is there more than one boiler room in the School? YES
What percentage of the School is heated by the Boiler? 100
Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)

The heating systems for MHS are composed of low-pressure steam boilers in the school's boiler room and servicing the entirety of the building.

Age of Boiler (number of years since the Boiler was installed or replaced) 14

Description of repairs, if applicable, in the last three years. Include year of repair:

The boilers have been replaced more recently than much of the school's infrastructure, with one replacement boiler being installed in 2008 and two more as part of an MSBA initiative in 2014. In the last year, the district has been forced to install a new (and costly) hot water heater in the boiler room, which was necessitated due to the irreparable breakdown of the existing hot water heater in the spring of 2021.

For heating hot water, low pressure steam from the boilers is provided to multiple hot water heat exchangers located throughout the building in areas where the AHU and classroom UV heating units reside. Heat exchangers and hot water pumping systems are considered to be in fair condition. Domestic hot water for the school is provided by two separate systems, one that is operational and one that is under repair. The first is on the first-floor mechanical room and serves 60% of the facility. The second is on the second floor mechanical room in the vicinity of the gymnasium and locker rooms that serves 40% of the facility. This latter system involves a pair of steam to hot water tanks that are original to the building and is in the process of being replaced with a dedicated system similar to the mechanical room system. The copper distribution piping for domestic cold and hot water throughout MHS is from the original construction, is in poor condition and beyond useful life. Leaks are continually occurring and represent a costly problem for the district.

Has there been a Major Repair or Replacement of the HVAC SYSTEM? YES

Year of Last Major Repair or Replacement:(YYYY) 2020

Description of Last Major Repair or Replacement:

The school's classrooms are served, or intended to be served, by UVs that provide only heating via both hot water coils or steam heating coils. Repairs were completed to the UVs during the 2020 - 2021 school year to improve the frequency of air exchanges to meet heightened air quality standards related to COVID-19. A multitude of motors were repaired, and MERV-8 filters were replaced by MERV-13 filters, resulting in a significant increase in the number of burned-out motors needing to be replaced during SY 21-22 as the motors were not intended to withstand the capacity of the MERV-13 filters. The unit ventilators are the main source of heating in each classroom and function as the primary ventilation. They were installed during the original school construction and are in poor condition and well beyond their useful life expectancy.

Even despite the recent repairs, in a host of classrooms the exhaust system is frequently found to malfunction. In addition to being an intended significant component of MHS's HVAC system, they are part of the exterior opening assembly. Both interior and exterior sealants and caulking are in poor and most cases failing condition and in need of immediate abatement, improvement and/or replacement. MPS has found it exceedingly difficult to find parts for these obsolete units, delaying repairs and frustrating impacted students and staff even further.

More information related to the challenges posed by the school's failing HVAC systems is below.

Has there been a Major Repair or Replacement of the ELECTRICAL SERVICES AND DISTRIBUTION SYSTEM? YES

Year of Last Major Repair or Replacement:(YYYY) 2022

Description of Last Major Repair or Replacement:

There are three electrical transformers located throughout the three mechanical rooms in the school. One of the transformers has begun to show evidence of failure and the district intends to replace it in the near future to avoid a catastrophic systems failure. The main electrical room is located in D Building and houses the electrical power distribution equipment to service the school. The power distribution system includes panels and feeders that were installed during original construction and are now well beyond their useful life expectancy and in poor condition. These highly antiquated electrical systems have proven increasingly unreliable particularly during extreme weather conditions. Power outages are not uncommon during either heat waves or snowstorms. Only a small section of the school's vocational wing features efficient LED lighting, the rest of the school is lit with inefficient earlier technology (T12) and this contributes to the poor energy efficiency to which elevated utilities expenses are partially attributed. The next significant (emergency) capital repair that the district will

undertake is the replacement of a contingency generator necessary to ensure the integrity of the information technology systems in the building in the event of power outages. The science area includes new 480/277V lighting systems and power panels with associated feeders in conduit.

BUILDING INTERIOR: Please provide a detailed description of the current building interior including a description of the flooring systems, finishes, ceilings, lighting, etc. (maximum of 5000 characters).

Main Lobby: The main entry, which is in its original condition up to and including a mural celebrating a then-upcoming national bicentennial celebration, has walls consisting of painted CMU, polished brick, linoleum tiles, and wood paneling. The lobby's floors include original red quarry tile throughout. The CREF report deemed the lobby to be beyond its useful life expectancy and in need of improvement and or replacement due to paint, sealants and caulking materials believed, based on their age, to contain hazardous materials.

Apparent upon entering the building from the school's main entrance is the inconsistency with the facility and modern accessibility standards. The school predates the Americans with Disabilities Act by 20 years, and insufficient modifications have been made to the building since that time. In addition to practical challenges this poses for students, families, community members, and visitors, out-of-code ramps and makeshift restrooms are not in keeping with the district's full-fledged commitment to equity and accessibility. As noted elsewhere in this SOI, poor technology and basic deficiencies like poorly maintained elevators are inconsistent with how the City of Medford and MPS value and prioritize the rights of all those who attend or visit MHS.

Classrooms: Classroom walls are painted CMU and concrete. Flooring in the classrooms is composed of linoleum tile. Ceilings have either exposed concrete deck or suspended acoustical ceiling tile.

Hallways: Wall assemblies are painted CMU and concrete, some of which has ceramic tile and wood panel finishes. Interior sealant joints are painted CMU with abutting concrete walls. Flooring in essentially all locations consists of 9" x 9" flooring tiles installed during the original building construction. A variety of acoustic suspended ceiling tile assemblies are present through the multitude of hallways in the school.

Bathrooms and Building Plumbing: Both student bathrooms and staff bathrooms are similar in their construction and date to the building's origin. Wall assemblies consist of CMU walls with ceramic tile. Flooring tile was installed during the original school construction. The CREF report advised that although 9" x 9" linoleum tile was not observed, the subfloor mastic and leveling compounds should be tested prior to any future improvements.

Plumbing feeding the bathrooms include copper and black iron, installed during the original building construction. Many of the fixtures have been replaced periodically over 50+ years; however, leaks are frequent and common, and the plumbing is in extremely poor condition and beyond its useful life expectancy.

MPS maintenance staff routinely replaces the domestic water copper piping incrementally as leaks and cracks are identified. This occurs on nearly a weekly basis. Very few isolation valves are found in either the copper or black iron piping. Given the age of the building, MPS has grown increasingly concerned that the plumbing system will fail with even greater regularity. A variety of acoustic suspended ceiling tile assemblies include wet spots and stains indicative of the expired shelf life of most of the facility's plumbing systems.

Stairwells: Stairwells located in each quadrant of MHS are painted CMU and concrete walls. Interior sealant joints are painted CMU with abutting concrete walls. Multiple flooring conditions in many locations consist of 9" x 9" flooring tiles installed during the original building construction. A variety of acoustic suspended ceiling tile assemblies are also present throughout MHS.

Cafeterias: There are three cafeterias, two of which have seating capacity of 300 students and one with a seating capacity of 150 students. Wall assemblies within the cafeterias are painted CMU and concrete walls, some of which have tile and wood panel finishes. Interior sealant joints are painted CMU with abutting concrete walls. Flooring includes 9" x 9" flooring tiles installed during the original building construction. The cafeterias include a suspended acoustical ceiling assembly.

Elevators: There are four aging elevators in MHS with three, generally, in working order, but in poor condition. The main elevator, located off the main entry lobby, is a hydraulic powered three-stop cab which was installed during the building's original construction. The cab was observed to be in working condition but has not been modernized and has had maintenance issues recently. Other elevators service the building's loading dock and athletic facilities, both of which are operational but are not modernized and are in poor working condition. A fourth elevator is located in the school's main kitchen and is intended to provide for more efficient delivery of school meals, but has been disabled for over a year due to exorbitant repair cost estimates.

PROGRAMS and OPERATIONS: Please provide a detailed description of the current grade structure and programs offered and indicate whether there are program components that cannot be offered due to facility constraints, operational constraints, etc. (maximum of 5000 characters).

MHS is a 9th through 12th grade comprehensive secondary school that is organized into three "houses," namely House M, House H, and House S. The house system permits the deployment of counseling and support staff to help shepherd students through their secondary school years. The school administration has organized itself around the infrastructure as best they can, but neither the house system nor the school's comprehensive identity as both an academic and vocational hub of learning are served well by the school's antiquated and failing physical structure.

Currently, the facility allows most existing programs to subsist, but with substantial limitations on program expansion and deeper learning that could be realized with more advanced and reliable infrastructure, especially with respect to instructional technology.

As noted elsewhere, the current MHS facility does not support related classroom space for several career and technology/vocational programs, resulting in students having to rely on makeshift classroom space amidst their shop or lab space for this critical aspect of the Ch. 74 CTE programs. In addition, spatial constraints within the CTE area of the building limit the district's ability to expand or grow existing programs and/or to develop and adopt new programs in the current facility.

Faulty electrical systems, unpredictable HVAC systems and crumbling plumbing systems constantly divert student and staff attention away from teaching and learning, making the stable, consistent and effective delivery of instruction more complicated and difficult than it should be.

Finally, the lack of high caliber classroom technology makes the full realization of educators' vision for innovative learning diminished because improvised methods of technology utilization afford educators correspondingly fewer opportunities to engage learners in ways that more modern educational environments could and would provide.

EDUCATIONAL SPACES: Please provide a detailed description of the Educational Spaces within the facility, a description of the number and sizes (in square feet) of classrooms, a description of science rooms/labs including ages and most recent updates, a description of the cafeteria, gym and/or auditorium and a description of the media center/library (maximum of 5000 characters).

MHS's infrastructure exhibits neither aesthetic nor functional qualities essential to its educational mission. Core academic spaces are inadequate to consistently implement contemporary curriculum. Student leaders described their school environment as "bleak," with one noting that "MHS is a brutal place to go to school..." Students have suggested that the building is unwelcoming and resembles a prison, which is exacerbated by rapidly deteriorating infrastructure.

Contributing to the bleak and prison-like feel are dark spaces with inadequate lighting. A considerable number of classrooms are interior spaces with no natural light. In all, MHS has 145 instructional spaces that are classrooms, CTE shops/labs and science labs. There are 116 classrooms or CTE-related rooms, 17 science lab spaces, one library and 11 CTE shops. 49 of these classrooms, or 34.2%, have no windows and no natural light. Classrooms that have windows have extremely diminished natural light due to the concrete structures framing the windows. This inadequate amount of natural light and the punishing aura emanating from the fluorescent lighting elsewhere

have prompted students to respond with skepticism to the district's stated commitment to social and emotional wellness. Upon returning to in-person learning in 2020, multiple students commented that a true investment in mental health would include less dingy learning environments.

The vast majority of the building resembles how it did in 1970. Science areas were extensively renovated in 2013-2014 with modern technology, fixtures, furniture and infrastructure. This area includes 17 classrooms/labs, which like the rest of the academic spaces, are approximately 870 square feet in size. With this notable exception, there have been no other major updates to any other section of the building. Classrooms are dotted with cart-based projectors lacking any meaningful instructional technology.

Science areas have comprehensive academic technology that enhances students' experiences, but they also illustrate a stark contrast to the substandard classrooms located throughout the remainder of the facility. Classes are frequently relocated due to heating or plumbing failures. Students do not have faith that the facility will function properly , causing a perpetual sense of distraction. Meanwhile the discomfort caused by fluctuating temperatures are not conducive to deeper learning. Disquieting scenes like students using blankets while in classrooms with failing HVAC are common.

Technology access is also a significant concern. Despite a roughly 1:1 environment, MHS is plagued by spotty and inconsistent network access and suffers from an over reliance on access points and relayers to combat a concrete structure predating the need for WiFi.

The MHS library media center is an interior space lacking adequate HVAC, natural light, technology and, generally, the capacity to support students. The library is 11,000 square feet, with makeshift offices having been constructed over the years to provide office space where there was once centralized cooling. The extremely low ceilings and original unforgiving lighting evoke the feeling of studying in a cave rather than a venue for the thoughtful exchange of ideas. The subpar conditions exacerbate the inequities experienced by high-need learners who would benefit from a more hospitable and technologically equipped media center.

MPS has taken considerable pride in its interscholastic athletics programming and has seen its physical education and health programming as interconnected to its core academic offerings. But some of the locker room facilities are inadequate and reflect the fact that the school opened prior to significant advancements in gender equity. Areas that should be utilized daily by female students have deteriorated to near deplorable conditions, and the facilities for male students are not materially better. With the facility's construction predating Title IX, the inequities between the two locker room facilities are noticeable with respect to size and overall condition. Student leaders and members of the community often describe the gender inequities as both obvious and completely unacceptable.

As noted elsewhere, the repairs to the school's hot water system are nearly complete, but the breakdown of this system rendered the showers unusable, yielding unacceptable conditions.

CAPACITY and UTILIZATION: Please provide the original design capacity and a detailed description of the current capacity and utilization of the school facility. If the school is overcrowded, please describe steps taken by the administration to address capacity issues. Please also describe in detail any spaces that have been converted from their intended use to be used as classroom space (maximum of 5000 characters).

The original design capacity in 1970 was reported to be for 3,500 students. There are currently approximately 1,300 students enrolled at MHS.

Given that there have been virtually no major renovations (with the exception of the science wing in 2014) the presumed actual capacity is not much lower than the original design capacity. However, the organization of the school as one comprehensive high school and the desire to integrate the academic and vocational programming and house model has resulted in various spatial challenges that are only exacerbated by the infrastructure related concerns articulated in this SOI.

MHS has a capacity that well exceeds its current or any projected total student population. However, as noted

elsewhere, the appropriate space for its current or prospective Ch. 74 CTE/vocational programming is severely limited, leading to current and future overcrowding for programming that is considered vital to its identity as a comprehensive high school.

MAINTENANCE and CAPITAL REPAIR: Please provide a detailed description of the district's current maintenance practices, its capital repair program, and the maintenance program in place at the facility that is the subject of this SOI. Please include specific examples of capital repair projects undertaken in the past, including any override or debt exclusion votes that were necessary (maximum of 5000 characters).

Medford has not attempted to conduct override or debt exclusion votes during the lifetime of the MHS facility. The MPS maintenance program consists of an in-house team of custodians and tradespeople who work to keep the existing and aging infrastructure clean and in working order through daily maintenance and ad hoc repairs. In addition, MPS outsources nightly cleaning duties to an external vendor that performs routine custodial work. As noted elsewhere, MPS has been participating in the City of Medford's recent capital planning process in which capital projects are identified, prioritized and then examined for purposes of allocating capital repair funding. In the last two years, capital repairs have been limited either to situations deemed emergencies related to the COVID-19 related disruptions to in-school learning or repairs to infrastructure that has either suffered from a catastrophic failure or is deemed to be on the verge of such a failure. These projects have included the installation of network servers to bolster the virtual environment in which the school (and district's) cloud-based systems operate, the hot water heater, an electrical transformer, and the series of plumbing and HVAC repairs referenced elsewhere in this SOI. Current maintenance practices focus on high need areas and emergency situations, often during school vacations or summer breaks, but this pace is insufficient to address the depth and frequency of the infrastructure challenges and compromises efforts to make Medford High School the true educational epicenter of the Medford community. The Medford School Committee has discussed in various forums the need for a comprehensive capital repair and maintenance program. However, the sheer scope of issues that require repair, remediation or reconstruction at MHS has hindered the ability of the district to enact such a plan and strategic approach.

For an additional exemplar as to the severe challenges with respect to the foreboding nature of capital repairs and maintenance with respect to MHS, consider this additional information related to the school's beleaguered HVAC systems:

MHS's HVAC systems consist of a combination of rooftop air handling units (AHU) central AHUs and unitary classroom unit ventilators (UV). The vast majority of the building is devoid of air conditioning. Central AHU and UV units support the majority of the building and are original to the time of construction. They are all in very poor condition or inoperable. They are all clearly beyond their useful life and replacement would require installation of new distribution components (conduit, ductwork, cabling, etc.).

The ten original central AHUs are designed as mixed air systems combining outdoor and recirculated indoor air. They serve interior zones (in cases in which they do function). They have all long exceeded their useful life, are generally in poor condition and a number of them are non-functional. The remaining operational units require constant maintenance and attention for proper operation.

Temperature controls both for the central AHUs and the classroom UVs are governed by a pneumatic control system original to the building. A few experienced MPS maintenance technicians have mastered the operation of the system, but it is woefully obsolete and requires significant investment in time to properly operate. Control panels servicing multiple AHS units have ceased functioning and the general condition of the system, which is original to the building, is poor and must be run continuously 24 hours a day and seven days a week. This inefficiency is reflected in the very high energy consumption of the facility, stated elsewhere in this SOI.

The rooftop air handling units (AHU) associated with third floor science classroom renovation are newer and modern at approximately 10 years old. These AHU provide 100% outdoor air and are equipped with heat recovery systems.

Air conditioning in MHS is limited to a select set of office spaces with window or portable air conditioning units,

as well as the 17-classroom/lab science area that, as referenced elsewhere, was renovated in 2013-2014. Originally, B Building, representing ? of the school's square footage, was outfitted with a centralized air conditioning system. However, when an absorption system failed catastrophically over 15 years ago, it was determined to be cost prohibitive to undertake repairs leaving the vast majority of the building devoid of any cooling capacity. Students and staff experience sweltering conditions during long portions of the year, detracting from their teaching and learning activities.

Priority 5

Question 1: Please provide a detailed description of the issues surrounding the school facility systems (e.g., roof, windows, boilers, HVAC system, and/or electrical service and distribution system) that you are indicating require repair or replacement. Please describe all deficiencies to all systems in sufficient detail to explain the problem.

MHS represents a composition of infrastructure that is in various states of disrepair or deterioration, with the vast majority of the school's operating systems having outlived their useful life expectancy. As noted elsewhere in this SOI, with the exception of the modernized science area, the remainder of the building's systems including but not limited to its roof, HVAC system, electrical systems, security systems (to the extent they exist), plumbing, and windows detract from the stability and consistency of the school's educational programs through constant malfunctions and failures.

Specifically, the approximately 215k square foot EPDM roof that was installed in 1990 contains wet insulation below the rubber membrane and frequently is subject to ponding on its surface. It is not pitched to drains and is in poor condition. The existing storm water piping and roof drains are also in poor condition.

With respect to windows, classroom windows are thermally inefficient single pane casement style windows with casement cranks that require ongoing costly maintenance. The windows' caulking and sealants are in poor condition and in need of replacement.

The boilers are considered adequate, but their value is compromised by the deteriorating, obsolete or failed infrastructure associated with their operation. The copper distribution piping for domestic cold and hot water was installed during the original construction of the building, in poor condition and beyond useful life exacerbating the challenges posed by the frequency and severity of the leaks and burst pipes discussed elsewhere in this SOI.

The building's HVAC systems are controlled by obsolete pneumatic devices requiring significant ongoing maintenance, with panels intended to control AHU 1 and AHU 2 no longer functioning.

Despite herculean efforts on the part of maintenance staff efforts during the 2020 – 2021 school year to markedly improve air quality throughout the school, dirty ductwork and clogged reheat coils are forcing the district to choose between near constant maintenance on these systems or subpar indoor air quality. UV motors are failing at unsustainable rates due to higher capacity filters intended to maintain more frequent air exchange of the COVID era.

The school's hundreds of classrooms are known to frequently overheat in mild weather patterns and be near uninhabitable during cold streaks.

MHS's power distribution systems include panels and feeders that are essentially all in poor condition and were installed during original construction, exceeding their useful life expectancy. Modern technology and reliable Internet have proven to be virtually impossible to capitalize upon in light of the facility's concrete construction. Crude and makeshift solutions around the ad hoc creation of IT equipment closets that lack appropriate cooling/HVAC and sufficient power represent the extent to which the district has stretched the building's infrastructure beyond acceptable and reasonable measures.

As noted elsewhere in this SOI, MHS has recently been estimated to expend substantially more energy than a typical American school. This was not a shocking conclusion in light of the fact that the original design capacity for the MHS facility was 3,500 students, whereas the current enrollment is approximately 1,300. Specifically, the CREF report found that the building's 2021 EUI of 86.0 kBtu/ft2, or 77% higher than the national average of 48.5 kBtu/ft2 for K-12 schools as reported by CBECS.

For MHS to meet Mass Save's energy efficiency target for Zero-Net Energy Buildings of 25 kBtu/ft2, energy intensity would have to be reduced by over 70%. In light of the disproportionate level of energy consumption, MPS lacks the capacity to effectuate a noticeable reduction in energy consumption. The layout of the building and the volume of Ch. 74 vocational programming make

the strategic use of specific components of the building problematic, and the age and deterioration of the HVAC and electrical systems make virtually all usage inefficient at one level or another.

In addition to the basic infrastructure that has deteriorated throughout the 50+ year use of the building, are a series of deficiencies that represent unacceptable challenges to the school community's safe and secure utilization of the facility. MHS lacks a fire suppression system with the lone exception for the science wing. The school's fire alarm and intercom system require constant maintenance by local vendors upon whose institutional knowledge of the antiquated systems MPS has become beholden. There is no electronic locking system and other vulnerabilities represent a significant departure from what would be considered best practice.

Priority 5

Question 2: Please describe the measures the district has already taken to mitigate the problem/issues described in Question 1 above.

As noted elsewhere in this SOI, the impact of deteriorating infrastructure has posed operational challenges as well as culture and climate challenges, all of which are continuing to have a detrimental impact on the school's capacity to deliver an optimal caliber of instruction. With respect to the operational challenges, the district is now basically in a perpetual state of mitigation. Reoccurring and one-time financial resources alike are being diverted away from teaching and learning to address emergency repairs to failing infrastructure and to minimize disruptions to classroom routines as much as possible. With regard to the most notable discrete mitigation efforts, the MPS has undertaken the following:

The most significant mitigation efforts referenced several times throughout this SOI was the renovation of the science wing in B Building in 2013 – 2014. This renovation effort restored centralized air conditioning to this one floor of one section of the building. It also provides for modern efficient lighting systems and the school's lone fire suppression system.

Through an MSBA partnership, two boilers were installed in 2014 to address heating issues in the building. As noted elsewhere the value of these boilers is diminished significantly by the plethora of associated infrastructure that are failing or in disrepair, i.e. the obsolete pneumatic controls. The original HVAC system continues to support the school to the extent infrastructure of its age and condition can do so.

The original EPDM roof was replaced in 1990, but as noted several times throughout this SOI, it is now well beyond its useful life expectancy and exhibiting evidence of water damage and patched puncture holes that are representative of the ongoing efforts toward mitigation.

Due to a catastrophic failure of one of MHS's two water heater systems in 2021, the installation of a new hot water heater system is nearly complete.

A thorough series of repairs were completed to the classroom UVs during the 2020 - 2021 school year. The purpose of these repairs was to improve the frequency of air exchanges to meet heightened air quality standards related to COVID-19. A multitude of motors were repaired, and MERV-8 filters were replaced by MERV-13 filters, the result of which has been a significant increase in the number of burned-out motors needing to be replaced during the 2021 - 2022 school year as the infrastructure was not intended to withstand the capacity of the MERV-13 filters. The unit ventilators are the main source of heating in each classroom and function as the primary ventilation. They were installed during the original school construction and are in poor condition and well beyond their useful life expectancy.

The MHS fire alarm system is generally original to the building's opening, however 20 years ago a module system unintended for a building of this size and complexity was incorporated into the system to maintain functionality. The science area maintains a more modern addressable system, but the Medford Fire Department has advised MPS on multiple occasions that the current system is inadequate and not in compliance with contemporary standards. MPS invests annually in maintenance to ensure a basic level of functionality, but the cost of a wholesale replacement of a system so intertwined with the facility's infrastructure has been considered financially prohibitive.

Priority 5

Question 3: Please provide a detailed explanation of the impact of the problem/issues described in Question 1 above on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

As referenced throughout this SOI, the impact of the building's deficiencies manifest themselves in a multitude of ways, ranging from the broad inability to truly integrate the school's academic and vocational identities, to the persistent distractions caused by having to relocate classrooms due to leaky or burst pipes. The school's culture and climate are destabilized by temperatures that fluctuate uncontrollably and technology that cannot be relied upon. Lighting systems are woefully inefficient, resulting in a diversion of resources that could otherwise be invested in teaching and learning, while providing an atmosphere that is considered bleak, foreboding, and incongruent with the type of affirming educational atmosphere the district is seeking to foster for students.

Again, as noted elsewhere in this SOI, students in a host of Ch. 74 vocational programs lack adequate and appropriate space to engage in their chosen disciplines. Other students are forced to choose programs that they are less passionate about (or to enroll elsewhere) because the school lacks the appropriate spatial capacity to develop and adopt a full range of vocational options for students. And students in all academic and vocational disciplines have become accustomed to draping themselves in sweatshirts and blankets or need to relocate on a moment's notice due to failing infrastructure. These constant disruptions are inconsistent with the standards MPS seeks to represent as an educational institution.

Priority 5

Question 4: Please describe how addressing the school facility systems you identified in Question 1 above will extend the useful life of the facility that is the subject of this SOI and how it will improve your district's educational program.

As noted elsewhere in this SOI, the useful life expectancies of the majority of the systems on which the school's operations rely have already expired. MPS is committed to addressing these deficiencies due to the district's recognition that they are interconnected and interdependent on one another, and the quality of the secondary education students are receiving is contingent upon infrastructure that, at a minimum, is not constantly distracting. Ideally, the school's infrastructure would serve to empower educators and leave students well-situated to capitalize on the vision of a comprehensive educational program that seamlessly integrates the school's academic and vocational programming opportunities.

Please also provide the following:

Have the systems identified above been examined by an engineer or other trained building professional?:
YES

If "YES", please provide the name of the individual and his/her professional affiliation (maximum of 250 characters):

Engineers retained by MPS:

Shaun Finn, Vice President, CREF

Patrick Murphy, Vice President, Project Lead, CREF

Christopher Wood, Director of IT, CREF

Matt Fragala, Managing Principal Consultant, EH&E

Brian Baker, Engineering Support, EH&E

The date of the inspection: 4/14/2022

A summary of the findings (maximum of 5000 characters):

In anticipation of submitting last year's Statement of Interest (SOI), the Medford Public Schools (MPS) retained the services of CREF, a real estate & facilities based in Boston, MA, with extensive experience in school construction. CREF and its partner agency Environmental Health & Engineering, Inc., based out of Newton, completed a joint environmental and facilities condition assessment of Medford High School. MPS's responses to the inquiries within the Statement of Interest are based in part on the information obtained through these reports, which are collectively referenced in the SOI as the "CREF report." The CREF report will be submitted to the MSBA as an appendix to this (SOI) on the basis that its conclusion and assessments are consistent with the conclusions that MPS has reached in deciding to submit this SOI on behalf of our flagship school, Medford High School (MHS).

In addition, in 2016, MPS retained The Garland Company, Inc. (Garland) to complete an infrared roof survey of MHS. As discussed in the district's previous SOI submissions, that report found that the school's main roof system, EPDM, was plagued by numerous wet insulation spots, ponding conditions, anomalies, punctures and weakened repair patches. That report was reviewed in preparation of the CREF report and several of its conclusions are referenced as appropriate throughout this SOI. The urgency of the challenges Garland identified has been exacerbated by the fact that targeted repair solutions have carried a short life expectancy of only 1-3 years and have proven financially ineffective and imprudent.

The CREF report's executive summary stated in relevant part:

The Building likely contains significant quantities of hazardous building materials including asbestos, lead paint, and polychlorinated biphenyls (PCBs). The cost to fully remediate or mitigate the presence of hazardous building materials is estimated to exceed $10,000,000. This does not include associated costs for replacement materials, or the related labor and management fees included in future projects.

The Building exterior and interior sub-element review included in this report cross references building materials in poor condition and in need of replacement with potentially hazardous conditions related to sealants, adhesives, and paint applications.

The HVAC units serving the remaining areas of the Building (including the central air handling units and classroom unit ventilators) are original to the time of construction and appear in very poor condition. Several of the systems inspected were not operational due to mechanical or control issues and are clearly beyond their useful life. Replacement of these units will also require the installation of new distribution components (conduit, ductwork, cabling, etc.) which will likely uncover additional hazardous materials, resulting in a compounding effect on the scope, schedule and budget considerations noted above.

Energy utilization benchmarking indicates the building is more energy intense than average school buildings. The Building's 2021 EUI of 86.0 kBtu/ft2 is 77% higher than the national average of 48.5 kBtu/ft2 for K-12 schools reported by CBECS. For the Building to meet Mass Save's energy efficiency target for Zero-Net Energy Buildings of 25 kBtu/ft2, energy intensity would have to be reduced by over 70%.

Finally, it should be noted that all future projects will need to take into account the City of Medford Climate Action and Adaptation Plan (draft plan published in October 2021), and any applicable Federal, State, and Municipal code requirements that have been put in place in the 50+ years since the facility was initially constructed. This will likely cause a "domino effect" where code required upgrades (eg. fire alarm and sprinkler installation in approximately 90% of the Building) and the resulting hazardous material abatement needs will multiply the cost of the primary renovations to a substantial degree to the point where significant improvements to the existing building must be considered against the cost and long-term value of a full-building replacement.

Priority 7

Question 1: Please provide a detailed description of the programs not currently available due to facility constraints, the state or local requirement for such programs, and the facility limitations precluding the programs from being offered.

As noted elsewhere in this SOI, due to facility constraints, the following programs have reached capacity and cannot accept new students despite there being student interest in these programs: Electricity, Health Assisting, Construction & Craft Laborers, Cosmetology.

These programs currently have a waitlist of students who want to participate in them. In addition, MPS has engaged a variety of external stakeholders including the Metro North Workforce Board to ascertain what programs would best serve the students of Medford the years ahead. At a minimum, MPS would seek to expand MHS's Ch. 74 programs to include Plumbing, Animal Science, Dental Assisting, and Information Support Services and Networking. But further expansions to communications related programming as well as theater and arts classes like set design and construction, sound and lighting design, and sculpture are ones that school administrators have met with student, family and community representatives about developing. These opportunities are currently stalled because the existing MHS facility lacks the spatial capacity in the areas of the building that would be suitable for this type of program expansion.

Priority 7

Question 2: Please describe the measures the district has taken or is planning to take in the immediate future to mitigate the problem(s) described above.

Similar to the efforts that are and have been underway to prevent the building's failing infrastructure from diminishing educational opportunities for students, MPS is also in a perpetual state of mitigation with respect to ensuring the spatial and logistical challenges posed by the current facility do not have disproportionately negative impact on the instructional opportunities available to students. Throughout MHS, classrooms and meeting spaces are being repurposed as learning spaces to support specific programs. Many of these spaces that are being used for purposes other than the ones that were intended or even contemplated at the time of construction and generally are not conducive to CTE programming. As noted elsewhere in this SOI, MHS's CTE programs are rapidly growing and there is evidence of genuine and passionate engagement on the part of students. For this reason, MHS has not slowed its recruitment of students or its encouragement of students committing to the various pathways available, but there is virtually no space remaining in the appropriate areas of the building to repurpose.

MHS has also attempted to take mitigation steps that are unrelated to physical infrastructure in order to combat problems caused by infrastructure. Two years ago, MHS reorganized into a House model to provide students with more individualized counseling and guidance support. This has positioned school staff to develop strong relationships with both students and families for purposes of guiding students toward post-secondary opportunities. This is helpful to the extent the MHS is able to offer programming consistent with student interests but is problematic when MHS cannot offer sufficient seats in the programs in which students are expressing interest. In addition to not maximizing the opportunities for student engagement, this type of disconnect could also serve to exacerbate the school to student (and family) bonds and relationships that have already been battered by the pandemic-related disruptions over the last two years.

In the time since the district last submitted an SOI, MHS has dealt with a series of culture and climate issues exacerbated by the building's poor infrastructure. In the fall of 2022, multiple physical altercations between students was rendered more difficult because of the school's poor layout. While the architecture alone did not cause and would not entirely alleviate these challenges, MPS feels strong that systemic security systems will enhance the district's ability to provide the type of culture and climate MHS students deserve and expect.

Priority 7

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

The problems described throughout this SOI have a significant impact on the Medford Public Schools and the district's flagship school, MHS. The school's ability to deliver academic programming has been severely compromised by inadequate, deteriorating or failing infrastructure and the disruptions to student learning that those deficiencies have caused. Students have expressed on numerous occasions that they feel unready and disengaged in a building that does little to nothing from an infrastructure perspective to induce strong student and school community relationships. Students have grown accustomed to frequently moving classrooms in attempts to find learning spaces without leaky ceilings, burst pipes, or inhospitable temperatures. In early 2023, major thoroughfare hallways were forced to be shutdown due to asbestos levels, forcing students to reroute through the cavernous building to reach their classes, with them rarely doing so on time. Students and families have also expressed outrage at the inability of the school environment to provide reliable and accessible technology. While the significant COVID-related influx of external funding has mitigated this challenge, the technological standards under which the school is operating are subpar at best. All of these contribute to a significant disruption to student learning and unstable educational environment that is incongruent with continuous progress and the type of school community MHS seeks to cultivate on behalf of its students.

Name of School	Medford High

CERTIFICATIONS

The undersigned hereby certifies that, to the best of his/her knowledge, information and belief, the statements and information contained in this statement of Interest and attached hereto are true and accurate and that this Statement of Interest has been prepared under the direction of the district school committee and the undersigned is duly authorized to submit this Statement of Interest to the Massachusetts School Building Authority. The undersigned also hereby acknowledges and agrees to provide the Massachusetts School Building Authority, upon request by the Authority, any additional information relating to this Statement of Interest that may be required by the Authority.

Chief Executive Officer *	**School Committee Chair**	**Superintendent of Schools**
Breanna Lungo-Koehn	Breanna Lungo-Koehn	Marice Edouard-Vincent
Mayor		
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Date	Date	Date
4/13/2023 7:12:52 PM	4/13/2023 7:13:50 PM	4/13/2023 8:47:47 PM

* Local chief executive officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated to the chief executive office under the provisions of a local charter. Please note, in districts where the Superintendent is also the Local Chief Executive Officer, it is required for the same person to sign the Statement of Interest Certifications twice.

Global Corporate Real Estate & Facilities



Report of Findings: Focused Facility Condition Review

Medford High School

April 14th, 2022

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Appendices

1. Appendix A – Environmental and HVAC System Review, Medford High School, Medford, Massachusetts (EH&E 25440)

1. Executive Summary

In March of 2022, CREF conducted a focused facility condition review of Medford High School (the "Building") located at 489 Winthrop Street, in Medford, MA. The campus houses students in grades 9-12 for both Medford's high school and vocational school programs. The three-floor facility consists of four connected wings (A, B, C, D) with a combined gross floor area between 530,000 - 600,000 square feet. The Building was reportedly constructed in 1971 and there are approximately 302 classrooms in the facility.

The purpose of this review is to aid the staff in documenting the existing physical conditions of the Building which should be considered during future planning for any major improvements or core replacement initiatives.

Review efforts included a summary level assessment of the facility's interior and exterior physical building condition, a non-destructive review of reported and/or visible hazardous materials, HVAC systems performance, and information systems and infrastructure functionality. Interviews with key management and operations staff were conducted in-person to solicit their observations and experience with the assemblies and systems noted above, and to participate in building tours.

These efforts resulted in this focused assessment of pre-selected facility sub-elements, observed conditions, and health & safety conditional findings to help inform decision making for the capital investment strategy for maintaining, upgrading or replacement of the building.

As main pillars of the project, pertinent documents were reviewed related to design, operations and maintenance of the HVAC systems and hazardous materials management with the following major findings:

- The Building likely contains significant quantities of hazardous building materials including asbestos, lead paint, and polychlorinated biphenyls (PCBs). The cost to fully remediate or mitigate the presence of hazardous building materials is estimated to exceed $10,000,000. This does not include associated costs for replacement materials, or the related labor and management fees included in future projects. [1]

- The Building exterior and interior sub-element review included in this report cross references building materials in poor condition and in need of replacement with potentially hazardous conditions related to sealants, adhesives, and paint applications.

- The HVAC units serving the remaining areas of the Building (including the central air handling units and classroom unit ventilators) are original to the time of construction and appear in very poor condition. Several of the systems inspected were not operational due to mechanical or control issues and are clearly beyond their useful life. Replacement of these units will also require the installation of new distribution components (conduit, ductwork, cabling, etc.) which will likely uncover additional hazardous materials, resulting

[1] Environmental Health & Engineering, *Environmental and HVAC System Review, Medford High School, Medford, Massachusetts (EH&E 25440)*

in a compounding effect on the scope, schedule and budget considerations noted above. [2]

- Energy utilization benchmarking indicates the building is more energy intense than average school buildings. The Building's 2021 EUI of 86.0 kBtu/ft2 is 77% higher than the national average of 48.5 kBtu/ft2 for K-12 schools reported by CBECS. For the Building to meet Mass Save's energy efficiency target for Zero-Net Energy Buildings of 25 kBtu/ft2, energy intensity would have to be reduced by over 70%.

Finally, it should be noted that all future projects will need to account for the City of Medford Climate Action and Adaptation Plan (draft plan published in October 2021), and any applicable Federal, State, and Municipal code requirements (e.g., 521 CMR) that have been put in place in the 50+ years since the facility was initially constructed. This will likely cause a "domino effect" where code required upgrades (e.g., fire alarm and sprinkler installation in approximately 90% of the Building) and the resulting hazardous material abatement needs will multiply the cost of the primary renovations to a substantial degree to the point where significant improvements to the existing building must be considered against the cost and long-term value of a full-building replacement. It is also noted that as cited in Massachusetts Code 521 CMR 3.3.2: "If the work performed, including the exempted work, amounts to 30% or more of the *full and fair cash value* (see **521 CMR 5.38**) of the *building* the entire *building is required to comply with 521 CMR.*"

[2] Environmental Health & Engineering, *Environmental and HVAC System Review, Medford High School, Medford, Massachusetts (EH&E 25440) 2022*

2. Project Background

Medford Public Schools - Buildings & Grounds Department is responsible for the maintenance, management, and planning of the Building. CREF was selected to conduct a focused facility condition review to identify deficiencies in select building systems and prioritize the findings to aid in making key investment decisions about sustaining services within the high school.

This review is intended to identify significant facility components which will need to be addressed either through repair or replacement should any major renovation or substantive upgrades be planned. Many of the facilities building components were observed to be in poor condition and Medford believes it is significantly behind on deferred maintenance and repairs to support the buildings. This report defines those components, identifies the significant deficiencies, and provides recommendations for strategic planning purposes.

2.1 Contract Basis

CREF submitted a response for professional services inclusive of a focused facility condition review dated March 7, 2022. Medford informed CREF of its decision to award CREF the project the following week.

2.2 Goals & Objectives of the Project

The goal of this project is to provide Medford with an understanding of the current condition of facilities included within project scope of work, and to identify and quantify in-scope facility conditions in terms of significant non-cyclical repairs and replacements of building systems, components, and assemblies. The information obtained during this project is to be used to support the development of Statement of Interest (SOI) to be submitted to the Massachusetts School Building Authority (MSBA).

The primary objectives of the project were to::

1. Review, to the extent they were available, existing drawings of the Building prior to the on-site review.
2. Review information provided on past, current and/or planned projects and significant maintenance activities.
3. Interview the facilities team, including the head of buildings and grounds, and /or building engineers knowledgeable regarding the construction and maintenance history of the school to document deficiencies previously identified by the staff.
4. Create a narrative summary describing the major construction features and building systems that comprise the facility.
5. Take photographs to document existing field conditions.
6. Perform a non-destructive visual inspection of the facility to identify in scope component level deficiencies and life-cycle conditions.

2.3 Scope of Work

CREF furnished the personnel, equipment, materials, and other necessary resources to conduct the focused review of the facility. The scope includes field observations and assessment of facility sub elements included below:

1. **Building Exterior and Envelope**
2. **Interiors**
3. **Plumbing**
4. **HVAC**
5. **Fire Protection**
6. **Electrical**
7. **Information Systems**
8. **Security System**

The work was divided into three major tasks:

1. Planning & Information Gathering
2. Field Inspection
3. Information Analysis and Recommendations

3. Scope Activities

CREF conducted a kick-off meeting with representatives of the High School to confirm the project scope, objectives, and approach. The purpose of the meeting was to confirm that both the CREF team and The Building team clearly understood the scope, objectives, and risks of the work to be undertaken before beginning the project. The meeting was held in the Superintendent's Conference Room at Medford High School at 10:00am on March 17th, 2022. The meeting was attended by the individuals listed below representing the Building and CREF.

Medford High School Representatives

David Murphy, Asst. Superintendent for Finance and Operations
John McLaughlin, Director of Buildings and Grounds; Primary Field Contact
John Bissell, Manager of Buildings and Grounds

CREF Representatives

Shaun Finn, LEED AP, CSL; Vice President, Executive Oversight, CREF
Patrick Murphy, EIT; Vice President, Project Lead, CREF
Christopher Wood, CISSP; Director of IT, CREF
Matt Fragala, MS, CIH, CSP; Managing Principal Consultant, EH&E
Brian Baker, PE; Engineering Support, EH&E

3.1 Project Kick-Off Meeting

During the kickoff meeting, the following items were completed and/or discussed:

- Introductions
- Goals & Objectives
- Building Contacts
- Safety & Security
- Scheduling & Site Access
- Escorts
- On-site Interviews
- Clarification of Building Information
- Existing Background Data
- Known Site Restrictions

3.2 Background Data Review

Prior to the beginning the field data collection, CREF reviewed background information provided for the Building. The information provided was in "hard copy" format, located in the plan room adjacent to the Building and Grounds Office. Partial sets of the original as-builts and the new science wing project were located and reviewed. CREF used the information obtained to supplement its understanding of the as-built construction features observed on site.

3.3 On-Site Facility Condition Review

CREF mobilized on site and began data collection on Monday, March 21, 2022. Patrick Murphy, Christopher Wood, Matt Fragala, and Brian Baker performed field data collection.

Patrick Murphy, Shaun Finn, Christopher Wood, Matt Fragala, and Brian Baker performed data review. The on-site inspection was completed on Thursday, March 23, 2022, with a follow up visit on Thursday, March 31st, 2022. John McLaughlin, John Bissel, and Allen Arena provided the building tours during the inspection phase.

This report was reviewed by the following CREF Staff:
Steve Van Ness, AIA; Vice President, Planning and Design
Chris Waltz, AIA; Director, Planning and Design
Ted Gentry, PE; Senior Project Manager

3.4 Escorts and Interviews of School Staff

During the on-site work, the CREF team was escorted by Mr. John Bissell, Manager of Buildings and Grounds. Bissel provided access to all spaces requested, and fielded questions from CREF during the kick-off meeting and during the site walkthroughs. Feedback provided by the Building staff included information describing facility maintenance history, and whether any significant issues, such as leaks were present at the facility. John on also provided information regarding the estimated age of building components at select locations.

3.5 Documentation of Facility Inventory Components

During the walkthroughs, CREF recorded select building elements and sub elements, and components that were significant parts of the as-built construction of the facility.

3.6 Data Analysis

Following completion of the field data collection, data review, CREF conducted an analysis of the data and prepared this report of findings.

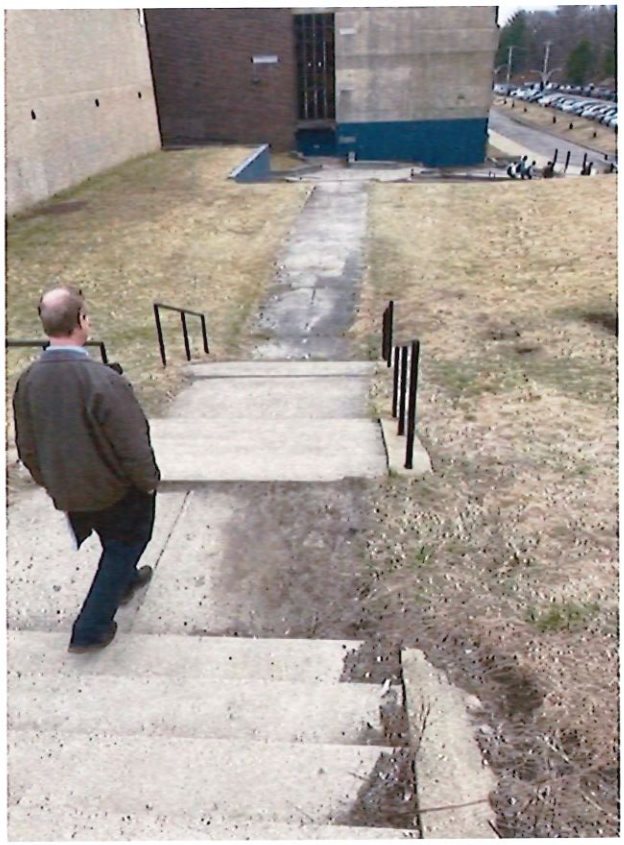
4. Focused Condition Review Findings

Existing Structure

Medford High School is a three-story, reinforced concrete structure with multiple low-slope roofs. The foundation construction consists of conventional concrete spread footings to support structural columns. All concrete noted on the existing plans have a minimum 28-day strength of 3,000 PSI. The reinforced concrete columns and concrete wall sections have a 28 strength of 4,000 PSI. Reinforced steel has a 40,000 PSI yield stress, except for select areas supporting the roof structure, which are 60,000 PSI.

Each roof consists of a 6" thick, one-way reinforced concrete slab spanning 15 feet in the east-west direction to 18" wide by 36" deep reinforced concrete beams. The beams span 30 to 45 feet in the north-south direction and are supported by reinforced concrete columns. Beams typically cantilever (15'-6", with camber) over interior columns, resulting in a 14-foot wide, east-west section of floor with no beams (6" slab only) to facilitate vertical chase ways for infrastructure distribution. These chase way zones are in the second structural bay of the exterior wall, in the north and south portions of the roof (two total). **It is important to note that this chase way zone design significantly impacts future infrastructure distribution and pathway flexibility.**

The floors of the building – the second-floor deck and third floor deck, are reinforced placed concrete. Like the roof construction, the decks consist of 6" think, one-way reinforced concrete slabs spanning 15 feet in the east-west direction. The story heigh is 12'-10"; typically leaving 9'-10" clear height below the 36" deep roof beams.



The design of the school was conducted in accordance with the Commonwealth of Massachusetts, "Structural Regulations of School Houses."

The construction classification for this facility is reinforced concrete floor and roof structure that has a fire resistance rating of at least 2 hours, equivalent to a Type 1 construction. **The existing building does not include a fire suppression system except for the third-floor science wing, renovated in 2013 and completed in 2014.**

The site walkways around the perimeter of the facility are beyond their useful life expectancy, and pose safety and accessibility challenges, specifically on the west elevation noted in the picture to the right.

4.1 Building Exterior and Envelope



The Facility is separated into quadrants (A, B, G, and H) by a ¾" wide expansion joint system. No internal joints were observed in the field or on the plans. **Cross sections of these expansion joints were not visible during the inspection period; however, it is important to note that any flexible sealant used in the original construction should be considered to potentially contain hazardous materials and great care should be taken during any improvement or replacement efforts.**

The roof systems are not pitched to drains except for the roof above the new science wing. Typically, there is a 16" +/- high parapet at the main roof. The mechanical penthouse was located in the central, 30 SF structural bay.



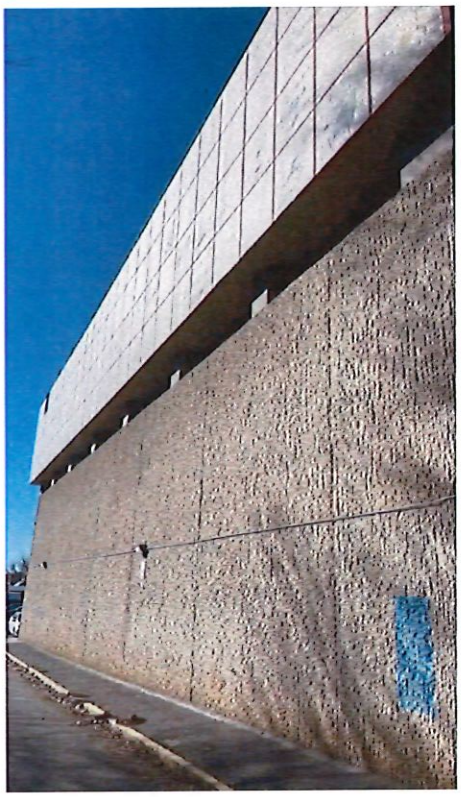
The main roof system is an EPDM material single ply construction. The original roof, completed in 1971, was replaced in 1990 and is approximately 215,934 SF in area. The roof above the new science wing was installed in 2014 and is a PVC roof construction of approximately 40,00 square feet. The EPDM roof was observed to be in poor condition. In an infrared roof survey prepared by The Garland Company in 2016, several areas were observed to have wet insulation below the rubber membrane. There were also ponding conditions observed during our field inspection, many of which were also confirmed within the 2016 Garland Report. Several puncture holes were also observed and had been patched. Per the 2016 Garland Report, the EPDM roof is beyond its useful life expectancy and a full replacement should be budgeted in the range of $1.75M – $2.00M (2016 dollars) [3]. It should be noted that this pricing estimate does not include abatement of any hazardous materials within the scope of work.

The exterior of the building superstructure consists of primarily reinforced concrete panels, brick veneer, and mechanically fastened concrete fins. The superstructure has not been significantly improved and was constructed with the original building in 1971.

The original exterior concrete wall assembly and fenestration was observed to have several punched openings for windows, doors, and vents. Unit ventilator supply and exhaust louvers were observed at all classroom locations throughout the facility. **The sealants around all original openings were observed to be in poor condition and failing in most locations.**

[3] The Garland Company, Inc., *Medford High School – Infrared Roof Survey,* 2016

All exterior assembly intersections (masonry to concrete in most cases) include similar exterior joint sealants original to the building's construction. The caulking at these typical locations is beyond its useful life expectancy. Conditions associated with future replacement **of the joints will be outlined further in the EH&E report (Appendix A).**



At the auditorium, pool and select areas of the Vocational School, the exterior assembly includes semi-opaque fiberglass panels which allow daylight into the interior of the building. These panels were installed during the original building construction and a 2007 study completed by Drummey Rosane Anderson, Inc., with assistance from Simpson Gumpertz & Heger, identified the panels to be "in very poor condition, and need replacement at this time" [4]. They are well beyond useful life expectancy.

Door openings are enclosed by a mixture of metal door and doorframe assemblies and are sealed with exterior caulking of several types. Most of the openings in the building exterior were constructed when the building was originally built in 1971.



[4] Drummey Rosane Anderson, Inc., *Pool Facilities Report*, 2007

The building fenestration consists of single pane steel casement windows which are original to the building. Classroom windows are single pane casement style windows. Cranks appeared to be in working condition but require ongoing maintenance. **Mentioned earlier in this report, caulking and sealants were observed to be in poor condition and in need of immediate remediation and replacement**.



4.2 Building Interior

Main Lobby

The main entry lobby walls consist of painted CMU, polished brick, linoleum tiles, and wood paneling. Floors in the main lobby consist of original red quarry tile throughout. The lobby was observed to be in the original condition, beyond its useful life expectancy and in need of improvement and or replacement. Please refer to the EH&E Report (Appendix A) for more information on paint, sealants and caulking materials present in this location as it should be presumed that hazardous materials are present.

Auditorium



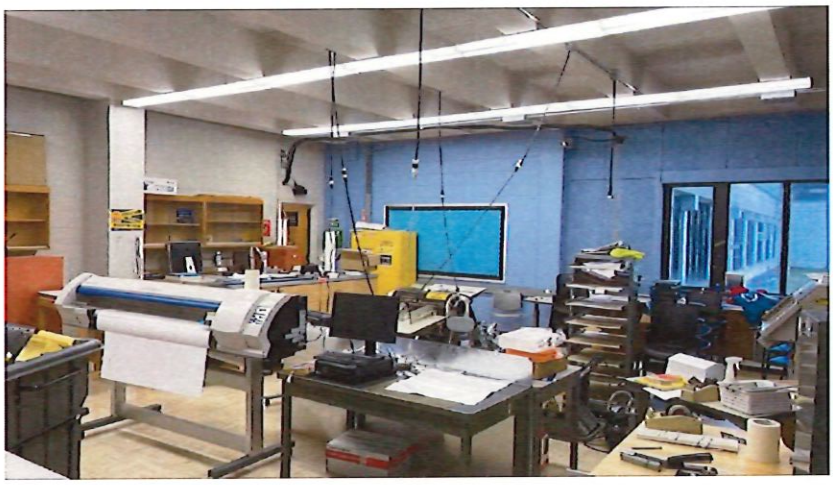
The main auditorium, located adjacent to the main lobby consists of wall elevations of polished brick and painted concrete. The walls were observed to be in well maintained condition. The main auditorium floor consists of a broadloom carpet assembly which was installed as an improvement to the original flooring. The carpet appears to have been installed within the last 10-20 years. The walls consist of painted concrete and CMU with fabric wrapped acoustical panels. The timing of the installation appears to be within the last 10-20 years. The ceiling assembly consists of a finished GWB suspended ceiling which sits below a composite steel and wood framed catwalk assembly.



Lecture Halls

The lecture halls typically were observed to be constructed with the original building in 1970 except for the new science wing lecture hall. The wall construction typically consists of elevations of painted CMU and painted concrete walls with fabric wrapped acoustical panels in select locations. The floors were observed to be linoleum tile. Ceiling assemblies consist of acoustical suspended ceiling tile mechanically hung from the concrete deck. Please refer to the EH&E Report (Appendix A) for more information on paint, sealants and caulking materials present in this location as it should be assumed that hazardous materials are present.

Classrooms and Unit Ventilation



Classroom walls are painted CMU and concrete. Flooring in the classrooms was observed to be linoleum tile. Ceilings were observed to be either exposed concrete deck or suspended acoustical ceiling tile.

Univents (Unit Ventilators) were observed in each classroom and function as the primary ventilation. The ventilators were installed during the original school construction and were observed to be in poor condition, and well beyond useful life expectancy. In most of the classrooms the exhaust did not appear to function. **The ventilators are of particular concern, as they are not only a significant factor of the buildings' HVAC performance, but also are part of the exterior opening assembly. Both interior and exterior sealants and caulking were in poor and most cases failing condition and in need of immediate abatement, improvement and/or replacement. It should be noted that the staff has found it exceedingly difficult to find parts for these obsolete units.**



Please refer to the EH&E Report (Appendix A) for more information on paint, sealants and caulking materials present in this location as it should be assumed that hazardous materials are present.

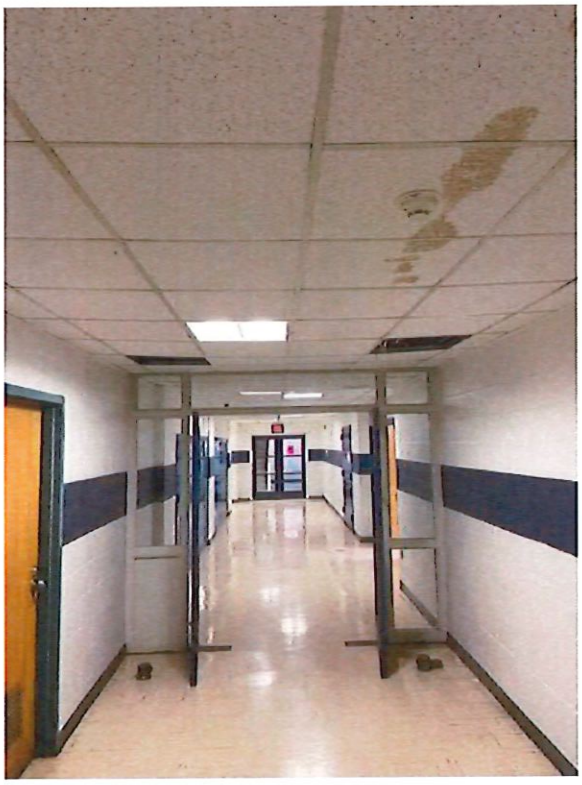
Prep, Chemical Storage & Work Rooms were observed to be constructed with the original building and presented in the same fashion as the classrooms and offices (painted CMU or concrete walls, linoleum flooring and acoustical suspended ceiling tile.

Corridors

Several corridors within the high school were inspected as part of the survey. Wall assemblies were observed to be painted CMU and concrete, some of which had ceramic tile and wood panel finishes. Interior sealant joints were observed where painted CMU and concrete walls abut. **Flooring observed in all locations consisted of 9" x 9" flooring tiles installed during the original building construction**. A variety of acoustic suspended ceiling tile assemblies were observed. Please refer to the EH&E Report (Appendix A) for more information on paint, sealants and caulking materials present in this location as it should be assumed that hazardous materials are present.











Bathrooms and Building Plumbing

Both student bathrooms and staff bathrooms were observed to be similar in their construction. Wall assemblies consisted of CMU walls with ceramic tile. Flooring tile was installed during the original school construction. **Although 9" x 9" linoleum tile was not observed, the subfloor mastic and leveling compounds should be tested prior to any future improvements.** Plumbing feeding the bathrooms was observed to be copper and black iron, installed during the original building construction in 1970. Many of the fixtures appear to have been replaced over the years, however, leaks were observed, and the plumbing was in poor condition and beyond its useful life expectancy. The maintenance staff has been routinely replacing the domestic water copper piping incrementally as leaks and cracks are identified. Very few isolation valves were observed in either the copper or black iron piping. At approximately fifty years old, the plumbing system of the Building will increasingly continue to fail. A variety of acoustic suspended ceiling tile assemblies were observed. Please refer to the EH&E Report (Appendix A) for more information on paint, sealants and caulking materials present in this location as it should be assumed that hazardous materials are present.

Stairwells



Stairwells located in each quadrant of The Building were observed to be painted CMU and concrete walls. Interior sealant joints were observed where painted CMU and concrete walls abut. Multiple flooring conditions were observed, and in many locations consisted of 9" x 9" flooring tiles which were installed during the original building construction. A variety of acoustic suspended ceiling tile assemblies were also observed. **Please refer to the EH&E Report (Appendix A) for more information on paint, sealants and caulking materials present in this location as it should be assumed that hazardous materials are present.**

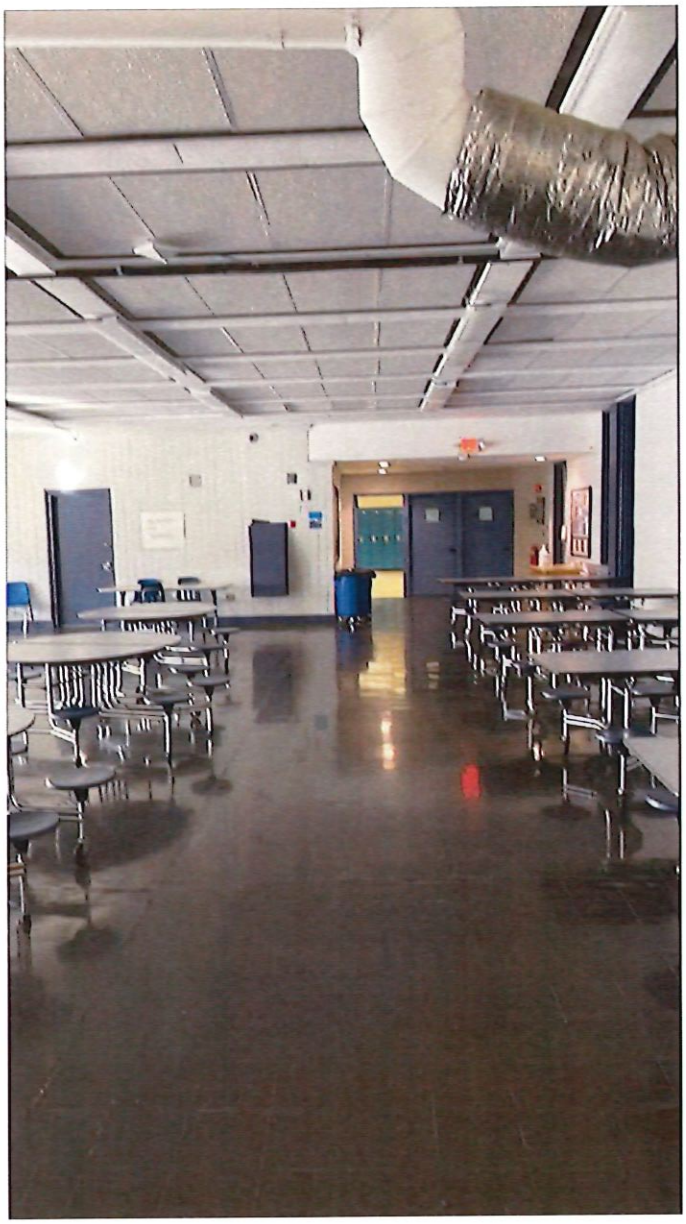
Administrative Space

Administrative wall assemblies were observed to be painted CMU and concrete walls, some of which had ceramic tile and wood panel finishes. Interior sealant joints were observed where painted CMU and concrete walls abut. Flooring was observed to be a combination of red quarry tile and 9" x 9" flooring tiles which were installed during the original building construction. A variety of acoustic suspended ceiling tile assemblies were observed. Please refer to the EH&E Report (Appendix A) for more information on paint, sealants and caulking materials present in this location as it should be assumed hazardous materials are present.

Cafeteria

Wall assemblies within the cafeteria were observed to be painted CMU and concrete walls, some of which had ceramic tile and wood panel finishes. Interior sealant joints were observed where painted CMU and concrete walls abut. Flooring observed in all locations were 9" x 9" flooring tiles which were installed during the original building construction. The cafeteria includes a suspended acoustical ceiling assembly.

Please refer to the EH&E Report (Appendix A) for more information on paint, sealants and caulking materials present in this location as it should be assumed that hazardous materials are present.



Incinerator Room



Wall assemblies were observed to be painted CMU and concrete. Interior sealant joints were observed where painted CMU and concrete walls abut. Flooring was observed to be finished concrete. **The incinerator was not working appeared to have been decommissioned over 20 years ago, however, no reports were identified or reviewed to assess the level of abatement completed**.

Please refer to the EH&E Report (Appendix A) for more information on paint, sealants and caulking materials present in this location as it should be assumed that hazardous materials are present.

Elevators

Three elevators were observed and included in this report. All have been maintained and were in working order, but in generally poor condition. The main elevator, located off the main entry lobby, is a hydraulic powered 3-stop cab which was installed during the Building's original construction. The service elevator, located next to the cafeteria, was also installed during the original construction. The cab was observed to be in working condition but has not been modernized and has had maintenance issues recently. The third elevator was also observed to be operational, but in poor working condition.

Mechanical Rooms



The main mechanical room located in Building D houses infrastructure for buildings A, B and D. The walls were observed to be painted concrete and CMU. Firestopping was observed to be incomplete on some of the wall elevations. The slab on grade is concrete with 3-4" equipment pads. On each day during the field inspection period significant amounts of water had pooled on the floor. It was reported that the origin of the water was a combination of equipment leaks and ground water seepage. **This standing water is of particular concern. Its origin is possibly related to hydraulic pressure from below the slab system. The under-slab drainage system should be assessed to confirm whether pockets of water or artesian wells are present below the building and are a contributing factor to the standing water in the main mechanical room.** Key pieces of equipment within the room included heat exchangers for buildings A, B and D; two decommissioned air handler units, domestic hot water tanks and pumps, boilers, electric motor control panels and transformers, the main chemical waste tank, the sprinkler standpipe servicing the new science wing on the third floor, and an obsolete pneumatic control system. All but the new domestic water equipment was observed to be installed at the time the Building was constructed, in poor condition and beyond useful life expectancy.



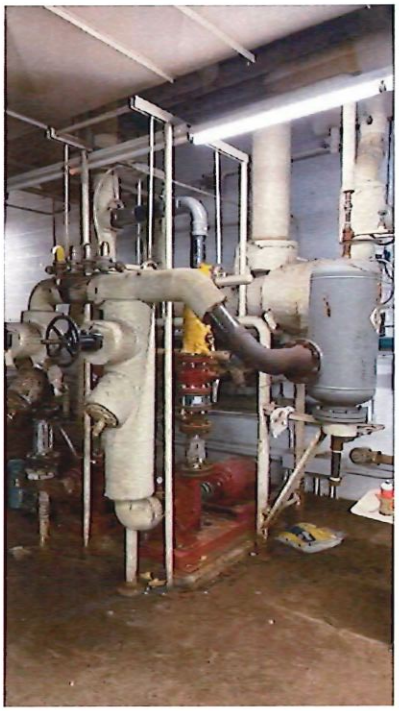


The school's boiler room provides hot water through facility. Three replacement boilers (2008, 2016) and a hot water system under construction during the site tour are housed within the space. The walls were observed to be painted concrete and CMU. The slab on grade is concrete with 3-4" equipment pads. The condition of the room and the existing equipment was poor the equipment is beyond its useful life expectancy.



4.3 Mechanical, Electrical, Plumbing & Fire Protection Systems

Mechanical (Refer to Appendix A - EH&E Report)



The building zones adjacent to the exterior of the Building were observed to be heated and ventilated by unit ventilators. Originally, the unit ventilators had cooling via a two-pipe change over system that received chilled or hot water from the central plant. The central chiller no longer operates. Please refer to the EH&E Report attached for further condition performance assessment.

The interior, or core area of each quadrant originally had cooling but no longer functions, due to lack of the central chiller being operational. The chiller, which was a steam absorption type, has failed in recent years and has not been repaired or replaced.

Reported deficiencies include dirty ductwork and clogged reheat coils which are contributing to poor indoor air quality. The classroom spaces also overheat in the warmer weather due to lack of air conditioning.

Air Handlers

AHU 1 and AHU 2 were observed within the main mechanical room and were not operational at the time of our inspection. Both units were observed to be in poor condition and beyond useful life expectancy. Please refer to the EH&E Report attached for further condition performance assessment.

Heat Exchangers

The heat exchangers for buildings A, B and D were observed within the main mechanical room and were operational and functioning as designed, however, they were installed during the original construction of the building and are beyond useful life expectancy. The heat exchanger located in the C building mechanical room servicing that quadrant was observed in be in the same condition and beyond useful life expectancy. Please refer to the EH&E Report attached for further condition performance assessment.

Pneumatic Controls

The building's HVAC systems were observed to be controlled pneumatically. This system is considered obsolete and requires significant maintenance to be operational. The DDC panel installed to control AHU 1 and AHU 2 is no longer functioning. Please refer to the EH&E Report attached for further condition performance assessment.



Boilers

Three low-pressure steam boilers provide heating to the school. The boilers observed were replacements from the original construction; one in 2008, and two that were installed in 2014. All appeared to be good condition. The obsolete pneumatic controls system, DDC controls, and no building automation system (BAS) are hampering performance of the boilers. Please refer to the EH&E Report attached for further condition performance assessment.

Electrical

The main electrical room located in building D houses the electrical equipment servicing the building. The power distribution system including panels and feeders were observed to be installed during original construction of the building, beyond useful life expectancy and in poor condition.



The new science wing included installation of a new 480/277V lighting system, power and 208/120-volt receptacle, and power panels including associated feeders in conduit. Please refer to the EH&E Report attached for further condition performance assessment.

Fire Alarm

The building fire alarm system on the first and second floor was observed to have been installed during the original construction, in poor condition and beyond its useful life expectancy.

The third-floor fire alarm system was brough up to code in 2013 as part of the new science wing project. A complete, addressable fire alarm system was observed on this floor and in good working order.



Plumbing

The majority of the existing plumbing fixtures in the oldest sections of the Building (except in the new Science Wing) were observed to be in poor condition and beyond useful life expectancy.

The plumbing infrastructure for buildings A, B, and D are located within the main mechanical room. A new domestic hot water heater system was recently installed and in good working condition. The remaining infrastructure housed within the room was installed during the original construction of the building.

Domestic Water Service

The copper distribution piping for domestic cold and hot water throughout the Building was installed during the original construction of the building, in poor condition and beyond useful life expectancy as previously noted. During field observation it was noted by the staff that leaks are an ongoing problem throughout the Building.

Sanitary and Vents

New acid waste and vent piping was observed in the new science wing, in good working condition

Roof Storm Drainage

The existing storm water piping and roof drains were observed to be original to the Building, in poor condition and beyond useful life expectancy.

Please refer to the EH&E Report attached for further condition performance assessment.

Fire Protection

Except for the new science wing, the Building has no active fire suppression system. An automatic sprinkler system was installed to service the new science wing. Standpipes and sprinklers were observed to be supplied from a dedicated 8" water service, entering the building in the main mechanical room.

4.4 Information Systems

On Thursday, March 31st, 2022, a tour of The Building's Information Systems architecture was completed. CREF's Director of IT and Security, Christopher Wood, was escorted around the building by the Building's Network Administrator Allan Arena. Areas examined were the MDF closet in the Network Administrator offices and the IDF closets across the wings of The Building.



As an artifact of the Building's age, IT Infrastructure was added to the Building as technology changed and improved. The Building was not built with scaling technology in mind, and this is reflected in the performance of the systems. The Building's CMU block construction inhibits wireless communications and technologies and cannot be brought to modern specification without major construction.

The Building's IDF closets have been added to the structure ad-hoc and are not located in the optimal locations, do not have appropriate cooling/HVAC, and do not have enough dedicated power to support the infrastructure as it stands and cannot be upgraded. These deficiencies are liable to result in future outages and issues directly as a result of the ad-hoc nature of the installations (e.g., unshielded CAT5/6 cables running directly over equipment causing melting/breaks). The Building and will result in major infrastructure problems down the line.

As noted in other sections, the Building's construction is aging and beyond its useful life expectancy. This is also reflected in many of the IDF rooms where leaks are present. This jeopardizes both the infrastructure and the health of the employees, due to the noted hazardous material condition referenced in Appendix A.

4.5 Security System

The existing public address system was not evaluated or observed during the onsite inspection period. Proximity card readers were not observed to be installed. Exterior Doors (locked during school hours) were observed to be locked manually by key. This system is obsolete, and it is recommended that it is replaced.

4.6 Environmental

Please refer to the EH&E report in Appendix A.

4.7 ADA

Although an ADA assessment was not part of this scope of work, it is noted that the majority of the building construction is original to its 1971 design. Is does not comply with today's guidelines, and will be subject to all applicable codes, including but not limited to Massachusetts Code 521 CRM: Architectural Access Board Section 521 CMR 3.3.1 and/or Section 521 CMR 3.3.2.

5. Recommendations, Qualifications and Exclusions

Building Envelope

The majority of the building envelope components are past their useful life and in need of replacement for both performance and aesthetic reasons. The existing single-pane operable and fixed windows should be replaced by high-performance window systems that incorporate thermally broken, multi-pane glazing with low-e coatings and incorporate solar shading on the appropriate building exposures. At a minimum, the roofing should be replaced with a highly-reflective, light-colored roofing membrane with increased levels of roofing insulation, while some other sustainable options include providing a vegetated roof over part or all of the facility (depending on structural limitations), incorporation of skylights to bring more natural light to interior areas without windows, and installation of a rainwater capture system to provide water for interior grey-water use.

Interior Finishes

Interior finishes are largely outdated and many likely contain hazardous materials in the products themselves or the adhesives and sealants associated with them. Replacement will result in both visual and environmental improvements. The use of low-VOC paints and flooring will improve the indoor air quality while installation of durable, low-maintenance resilient flooring materials will also reduce maintenance time and expense. High-traffic areas can be updated with impact-resistant wall materials to further reduce maintenance needs and high acoustic value ceiling materials can be installed to improve noise control. There is a large number of finish options for all these surfaces and the final product selections will need to be evaluated based on a combination of first cost, life-cycle cost, durability, maintenance needs, "green" characteristics, and overall aesthetic impact.

Sustainability

Although a sustainability assessment was not conducted as part of this project scope, some energy conservation initiatives associated with future improvements and renovations will be significantly constrained by age and design of the school. It is clear that the building's infrastructure may require major upgrades, or full replacements in order to integrate sustainable systems. Additionally, architectural system upgrades to reduce energy consumption will also be significantly constrained.

Mechanical, Electrical, Plumbing, and Fire Protection

Please refer to Appendix A.

5c. Qualifications and Exclusions

CREF's assessment activities were intended as a preliminary review to identify problems and deficiencies; it was not intended to be a detailed analysis of the facility or its components. Although trained professionals exhibited a "standard of care," with this type of preliminary review it is possible that conditions may exist which will affect the performance of the facility, but which may not have been discovered during this review.

The scope of work specifically excluded obtaining and testing materials and CREF did not perform engineering calculations to determine the adequacy of the existing design.

This review was a non-destructive survey only and specifically excluded any investigative techniques such as moisture surveys, water intrusion testing, adhesion or cohesion testing, load testing, etc.. Testing to determine the presence of asbestos, radon, lead based paint, or other potentially hazardous materials was specifically excluded from our scope of work. Our work also excluded the dismantling or removal of casings, housings, insulation, and other enclosures to visually assess a building roof section. Our scope specifically excluded the dismantling or removal of building elements to visually assess building substrates, structural connections, or fasteners.
It was not CREF's intent to find every defect or make detailed remedial designs, but to identify obvious, visually apparent defects and to generally quantify the extent of the observed defect.

Additional Exclusions

- Comprehensive Fire Code Assessment
- Comprehensive ADA Compliance Assessment
- Comprehensive Safety and Security Assessment
- Environment, Social and Governance (ESG) Program Review

Appendix A: Environmental and HVAC System Review, Medford High School, Medford, Massachusetts (EH&E 25440)

Please see attached.

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March 31, 2022

Mr. Patrick Murphy
Vice President, Business Development & Strategy
Corporate Real Estate & Facilities, LLC (CREF)
200 High Street
Boston, MA 02110

RE: Environmental and HVAC System Review, Medford High School, Medford, Massachusetts (EH&E 25440)

Dear Mr. Murphy:

Environmental Health & Engineering, Inc. (EH&E) provides this report to Corporate Real Estate & Facilities, LLC (CREF) for the screening level environmental and heating, ventilating, and air conditioning (HVAC) system condition review conducted to support the evaluation of Medford High School (the Building) located at 489 Winthrop Street, Medford, Massachusetts. At the request of CREF, the EH&E project team has completed the characterization study to determine if building materials contain hazardous materials or are potentially contaminated with hazardous materials, the condition of primary components associated with the HVAC systems serving the Building, and energy utilization benchmarking. This information is intended for use by CREF and Medford to aid in the decision-making processes for the needs of the existing structure.

EXECUTIVE SUMMARY

- The Building likely contains significant quantities of hazardous building materials including asbestos, lead paint, and polychlorinated biphenyls (PCBs). The cost to fully remediate or mitigate the presence of hazardous building materials is estimated to exceed $10,000,000.
- The HVAC systems serving the third floor science classroom areas (installed circa 2012 as part of the third floor science classroom renovation project) appeared in good working condition as would be expected given they are relatively new.
- The HVAC systems serving the remaining areas of the Building (including the central air handling units and classroom unit ventilators) are original to the time of construction and appeared in very poor condition. A number of the systems inspected were not operating due to mechanical or control issues. These systems require a significant level of effort by facilities personnel to maintain operability and are in need of replacement, including overall fan systems and associated controls.

- Energy utilization benchmarking indicates the Building is more energy intense than average school buildings. The Building's 2021 EUI of 86.0 kilo (thousand) British thermal unit per square feet (kBtu/ft^2) is 77% higher than the national average of 48.5 kBtu/ft^2 for K-12 schools reported by Commercial Buildings Energy Consumption Survey (CBECS). For the Building to meet Mass Save's energy efficiency target for Zero-Net Energy Buildings of 25 kBtu/ft^2, energy intensity would have to be reduced by more than half.

HAZARDOUS MATERIALS

Hazardous materials review for this project consisted of a review of existing environmental reports, an initial site walkthrough, and preliminary visual assessment for presence of hazardous materials. The walkthrough and visual assessment for hazardous materials at the Building was conducted by EH&E during March 2022. In addition, EH&E utilized information gathered through conversations with personnel knowledgeable about the conditions within the Building.

During the course of EH&E's preliminary survey, four conditions were identified that will require ongoing management under an operations and maintenance (O&M) plan, pre-demolition abatement, or remediation. These conditions include:

- Known presence of installed asbestos-containing materials (ACMs) in many areas of the Building.
- Known presence of lead in paint on installed components throughout the Building.
- Known and suspect presence of several miscellaneous hazardous materials throughout the Building.
- Likely presence (did not confirm with testing) that installed building materials containing polychlorinated biphenyls (PCBs) exist in both accessible and concealed applications.

The following sections provide a summary of the key findings and recommendations from the assessment. Please note that this report is subject to the limitations in Appendix A.

Purpose

This analysis was prepared as a screening level guideline for evaluating hazardous materials associated with the Building and to facilitate initial project planning, sequencing, and abatement cost estimation. This document is not a specification or work plan for hazardous material removal, management, or disposal. A comprehensive specification for the removal, management, and disposal of identified hazardous materials will need to be drafted at a later date, at which time, bidding contractors will be required to verify all information regarding the presence, location, and quantity of hazardous materials or conditions including those listed in this preliminary analysis.

Overview of Hazardous Materials

During March 2022 EH&E conducted a screening level hazardous materials survey for building-related hazardous materials within the Building. An overview of the findings and conditions are provided as follows.

Asbestos-containing Materials (ACMs)

A summary of presumed ACMs and conditions are presented in the 2020 Asbestos Hazard Emergency Response Act (AHERA) report.[1] Significant quantities of friable and non-friable suspect materials that are confirmed and presumed ACMs have been identified as part of the AHERA report. Additional sampling and analysis of these materials is required to determine if they contain asbestos prior to disturbance. This will be accomplished through the completion of a National Emissions Standards for Hazardous Air Pollutants (NESHAPs) compliant asbestos inspection prior to any building renovation or demolition. The confirmed and presumed ACMs are located extensively throughout the interior of the Building. These materials are primarily associated with the 9" x 9" vinyl floor tiles and mastic, sink coatings, stage curtain, caulking in brick, window sills, breeching insulation, vibration cloth, caulking on interior windows, laboratory counter tops, and beige floor tiles and mastic. Currently these materials are managed under an operations and maintenance (O&M) plan.

It should be noted that locations in the Building where ACM is present, other potential hazardous materials can exist. Prior to conducting any work involving the removal of ACMs, other potentially hazardous materials must be appropriately addressed or controlled.

The U.S. Environmental Protection Agency (EPA) NESHAPs regulation, Title 40 Code of Federal Regulations (CFR) Section 61.145 requires, prior to building demolition or renovation, the removal and disposal of friable asbestos-containing building materials or those materials that will become friable as a result of demolition or renovation work. The Commonwealth of Massachusetts classifies materials as asbestos-containing materials (ACMs) when they contain greater than or equal to 1.0% asbestos. Trace concentrations (less than 1.0%) of asbestos require transport as ACM waste to an out of state facility. EH&E recommends that anyone handling building materials with trace concentrations of asbestos be properly notified of the material's asbestos status.

The existing inspections under the AHERA regulations require that friable materials be assessed for asbestos content and condition. They do not address concealed building materials that would be subject to disturbance during demolition. EH&E recommends that a comprehensive

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[1] Universal Environmental Consultants, *AHERA 2020 Three-Year Re-Inspection Report, High School, 489 Winthrop Street.*

NESHAPs inspection be performed prior to any renovation or demolition to characterize all building materials.

Cost estimates provided in the AHERA report and adjusted for inflation indicate that remediation of accessible ACMs in the Building with associated monitoring will cost approximately $1,050,000.

Lead-based Paint

Lead-containing paints and coatings were identified in the Building as part of a limited investigation prior to the Science Laboratory Renovation project in 2012/13. Prior sampling identified several paints with concentrations greater than 0.1 milligrams per square centimeter (mg/cm^2) of lead. The identified materials include maroon, brown, and tan paint on CMU block, red paint on a pegboard, and light brown paint in the stairwell. This survey was limited in scope to the Science Laboratory renovation area; however, it is likely that these paints are present in other areas of the Building. The 2012/13 inspection was conducted to support demolition and waste managment efforts, and was not designed to support child occupancy of the building. Massachusetts Department of Early Education and Child Care requires that if a program serves any child younger than five years old, the licensee must provide evidence of a lead paint inspection from the local board of health, or the Massachusetts Department of Public Health, or a private lead paint inspection service and compliance with the Department of Public Health regulations at Title 105 Code of Massachusetts Regulations (CMR) Section 460.000, *Lead Poisoning Prevention and Control*.

The evaluation conducted by EH&E in March 2022 does not constitute a compliance inspection as defined under Childhood Lead Poisoning Prevention Program (CLPPP) regulations and it is not currently known if lead-containing paint is present in all areas of the Building. Review of the CLPPP database indicates that a location at the Building underwent an initial lead paint inspection on January 1, 1998. The inspector was Diane Ciano (License #3146). No additional listings were present in the database for 489 Winthrop Street, Medford, MA. It is not clear that the inspection ("Unit 1013" in the database) was conducted in the daycare area; however, given the use of the building, it is a likely location for inspection. The report states "At the time of inspection there were lead hazard found on the property. The inspection showed areas that did not meet Massachusetts rules for lead safety. Lead paint was found in poor condition (chipping or peeling), or on areas of windows that could make dust, or in areas where young children could reach it."

In order to achieve compliance with lead regulation for areas of the Building occupied by young children under 5 years of age, if not already obtained, Medford should take action to obtain a current Letter of Full Deleading Compliance. Therefore, the cost estimate provided in this report

includes an allowance for lead inspection services. This work must be completed by a Massachusetts licensed lead inspector.

One option for de-leading compliance is to make these surfaces intact with simple encapsulation at an approximate cost of $5 – $8 per square foot (SF). If, to support renovation, full removal and disposal, the cost would be approximately $12 – $15 per SF. An additional cost of $1,800 – $2,500 is estimated for contractor mobilization. Cost estimates are summarized in Table 1:

Table 1 Summary of Estimated Costs for Lead Paint Remediation, Medford High School, Medford, Massachusetts

Remediation Activity Cost Item	Estimated Cost*
Inspection and Reporting	$14,000 – $20,000
Contractor Mobilization (Lump Sum)	$1,800 – $2,500
Surface Stabilization/Encapsulation ($5 -$8/SF)	$25,000 – $40,000
Full Removal ($12- $15/SF)	$60,000 – $75,000
Total Cost - Surface Stabilization/Encapsulation	$40,800 – $62,500
Total Cost - Full Removal	$75,800 – $97,500
Total	$40,800 – $97,500

SF square feet

* All costs are approximate and must be verified by bidding contractor(s). Estimated cost assumes remediation of 5,000 square feet of space in the Building.

Any contractor that will disturb, remove, or dispose of materials coated with paint, containing lead in any amount, is subject to the OSHA *Lead Construction Standard,* 29 CFR 1926.62. OSHA requires employers to provide a complete worker protection and exposure program for any renovation or demolition activities where lead is present in paint at any concentration. A hazard assessment must be completed to determine site-specific requirements for compliance. Programs must address respiratory protection and include personal air sampling for the various tasks being performed.

Lead-containing wastes must be removed and disposed in accordance with all applicable regulations. The concentrations of lead in painted waste materials are not considered highly elevated but will require proper characterization testing prior to disposal. This is typically performed using the Toxicity Characteristic Leaching Procedure to ensure proper disposal.

Miscellaneous Hazardous Materials

Various types of miscellaneous hazardous materials (potential PCB ballasts, mercury-containing light bulbs, refrigerants, transformers, etc.) were observed throughout the Building. These materials are required to be removed and containerized for proper management prior to disposal.

EH&E observed several suspect miscellaneous hazardous materials in the Building including:

- Fluorescent light tubes (both installed and in storage) that may contain mercury.
- Fluorescent light ballasts that may contain PCBs.
- Exterior lighting that may contain mercury or other heavy metals.
- Refrigerant in white goods, coolers, and heating, ventilating, and air-conditioning equipment.
- Lead-acid batteries associated with emergency exit signs.
- Lubricants for servicing compressors and mechanical equipment.

EH&E recommends proper handling and disposal of all miscellaneous hazardous materials prior to any renovation or demolition activities. Estimated cost for removal and disposal of miscellaneous hazardous materials is approximately $125,000.

PCB-containing Building Materials

Multiple exterior caulk applications were observed in transition and expansion joints and are assumed to be present in materials concealed under newer window systems. These sealants should be assumed to contain or cover previous materials installed during the PCB era. If present, the remediation and mitigation of PCBs will likely be the largest hazardous materials expense associated with renovations of the existing Building.

Polychlorinated biphenyls (PCBs) had numerous commercial applications before they were banned in the U.S. in 1978. Those uses included the addition of PCBs to building construction materials, such as adhesives, paint, and caulk. Numerous methods for abatement and mitigation are available. In September 2009, the EPA provided initial guidance to property managers, particularly administrators of schools, on approaches to managing potential exposures to PCBs in building materials. The guidance from EPA complements the requirements in Title 40 Part 761 of the Code of Federal Regulations for characterization and disposal of waste materials that contain PCBs. PCBs were reported to have been sold in the U.S. from 1958 through 1971 for use as plasticizers or as a component of numerous industrial products. The construction of the Building occurred during this time period.

The PCB regulations do not specify a schedule for determination of PCB-containing materials as waste or a timeline for remediation of PCB waste. This aspect of the regulations provides the opportunity for property owners to identify the remediation strategy that is most appropriate for a building with PCB containing materials. The costs of removing exterior PCB caulk and contaminated porous materials, primarily concrete, using hand and mechanical tools normalized to building size, can typically range between $9 to $18 per square foot of indoor building space. The variation in costs reflects many factors including the amount and accessibility of PCB-contaminated building materials and must be verified by bidding contractor(s). Estimated cost of PCB remediation of the Building range from $4,680,000 to $9,360,000.

Preliminary Cost Information Summary

Within the Building, different types of hazardous materials or conditions exist within the same area or location and, as a result, the means and methods to appropriately address such materials may overlap or conflict. Careful planning by the project team and execution by the contractor(s) selected to conduct work is critical in ensuring that the removal, containerization, and disposal of hazardous materials are conducted in a manner that does not impact the safety of people or create release of contaminants to the environment.

Preliminary cost estimates are included by remediation activity in Table 2.

Table 2 Summary of Estimated Costs for Hazardous Building Materials Remediation, Medford High School, Medford, Massachusetts

Remediation Activity Cost Item	Estimated Cost*
Accessible Asbestos Containing Building Materials (ACBM)	$900,000
ACBM Project Design, Monitoring and Air Sampling	$145,000
Polychlorinated Biphenyl (PCB)-containing Building Materials	$8,000,000
PCB-containing Soil	$750,000
Lead-based Paint Limited Areas for Child (less than 5) Occupancy	$97,500
Universal Waste and Refrigerants	$125,000
Total	$10,000,000

* All costs are approximate and must be verified by bidding contractor(s).

MECHANICAL AND PLUMBING SYSTEMS

Heating, Ventilating, and Air-conditioning Systems

HVAC service for Medford High School is provided through a combination of rooftop air handling units (AHUs), central AHUs, and unitary classroom unit ventilators (UVs).

The rooftop AHUs are approximately 10 years old and were installed as part of the 2012 renovation of the third floor science classrooms. These AHUs provide 100% outdoor air and are equipped with heat recovery systems. There are three rooftop AHUs in total, and all provide heating and cooling to the spaces served. The rooftop AHUs and associated systems appeared in good condition, and all appeared to be operational.

The central AHUs are original to the building (circa 1967-69) and were designed as mixed air systems delivering a combination of outdoor air and air recirculated from the occupied spaces. There are approximately 10 central AHUs in total, which provide service to interior zones within the facility including interior offices and classrooms, the auditorium and band areas, locker rooms, the kitchen, and the administrative offices. With the exception of the AHU serving the administrative offices, all central AHUs are designed to provide heating only through either a hot

water or steam heating coil. The AHU serving the administrative offices also provides cooling through a direct expansion cooling coil and an air-cooled condenser located on the roof.

The central AHUs appeared in poor condition and have exceeded their useful life. A number of the central AHUs were not operating at the time of inspection due to mechanical issues or control related problems. According to facilities staff, these units require constant maintenance to maintain operability and constant attention to ensure they are controlling properly. As currently operated, these AHUs are unable to consistently meet the year round thermal and ventilation needs of the spaces served and are in need of complete replacement, including fan systems and controls.

Spaces situated along the perimeter of the Building are ventilated and thermally conditioned with individual classroom unit ventilators. These units are floor mounted and located on the exterior wall of the space. The UVs are original to the building and provide a mixture of outdoor air and air recirculated from the space served. Outdoor air is provided to the UVs through a side wall outdoor air intake that is integral to the UV. The UVs provide heating only using a hot water heating coil. The UVs surveyed as part of the assessment are in poor condition and in need of replacement. Some UVs inspected were not operating and, therefore, are not providing appropriate ventilation to the spaces served.

Automatic temperature controls for the originally installed HVAC equipment, (including central AHUs and classroom UVs) is through a pneumatic control system. This control system is original to the building and is in generally poor condition. Further, this system does not allow for facility personnel to readily assess system control points or to be notified upon system or component failure. In addition, the pneumatic control system does not allow for facilities personnel to set system operational schedules and as such, systems are operated continuously 24/7. The control system for the rooftop AHUs and the associated systems included as part of the 2012 science classroom renovation project is through direct digital control. This control system is in good condition and allows for the maintenance of set points and operational scheduling.

There are multiple exhaust fans serving the facility, which provide general exhaust for classrooms and dedicated exhaust for specific areas including the gymnasium and locker rooms, vocational technical shops, toilet rooms, etc. Exhaust fans observed by EH&E as part of the March 2022 assessment showed that they appeared in relatively good condition.

Boiler and Heating Hot Water Systems

The heating system for the building comprises three low pressure steam boilers located in the boiler room on the northeast corner of the facility. The three boilers are relatively new and were a replacement of existing boilers. Two of the boilers were installed circa 2014 and the third boiler was installed circa 2007. All boilers appeared in good condition.

For heating hot water, low pressure steam from the boilers is provided to multiple steam to hot water heat exchangers located throughout the facility where the steam is used to generate hot water for AHU and classroom UV heating (note that a small number of the original AHUs are provided direct steam for heating). Hot water generated through the steam to hot water heat exchanges is distributed to the AHU and UV heating coils through hot water circulation pumps. Heat exchanger and hot water pumping systems appeared in fair condition and operational.

Domestic Hot Water Systems

The domestic hot water for the school is provided by two separate systems, one located within the first floor south mechanical room (serves about 60% of facility), and the second located in the second floor northwest mechanical room in the vicinity of the gymnasium and locker rooms (serves about 40% of facility).

The domestic hot water system located in the first floor mechanical room comprises a set of dedicated hot water boilers that provide hot water to a set of storage tanks. These systems appeared in good working order. The domestic hot water system located in the northwest quadrant of the facility comprises two steam to hot water storage tanks that are original to the building. These systems are provided plant steam to heat and maintain the temperature of water within the tanks. These tank systems are in the process of being replaced with a dedicated domestic hot water heating system similar to that in the south mechanical room.

OVERVIEW OF ENERGY UTILIZATION BENCHMARKING

Benchmarking energy use involves comparing a building's energy utilization to similar buildings in the region. The energy use of a building is dependent of the size, use of the space and operations. The Building has 532,000 ft^2 of floor area used for classrooms, administrative offices, a gymnasium, and a 25-yard indoor heated swimming pool. For school buildings, factors including the age of the building and energy intensive equipment may increase the Energy Use Intensity (EUI). EUI is the energy use of a building per square foot of space and is often used to compare energy use across buildings in the same way that miles per gallon is used to compare fuel economy across vehicles. The energy use and weather normalized EUI for the Building from 2014 to 2021 is shown in Figure 1. The EUI ranged from 55.6 to 86.0 kBtu/ft^2 over the past 8 years with an average of 67.3 kBtu/ft^2. The Building's 2021 EUI of 86.0 kBtu/ft^2 is 77% higher than the national average of 48.5 kBtu/ft^2 for K-12 schools according to the Commercial Buildings Energy Consumption Survey (CBECS).[2] In 2020, Boston K-12 Schools reported EUIs

[2] Energy Star. 2021. *Technical Reference: U.S. Energy Use Intensity by Property Type*. Accessed on March 28, 2022, from: https://portfoliomanager.energystar.gov/pdf/reference/US%20National%20Median%20Table.pdf

from 4.5 to 139.7 kBtu/ft^2, with an average of 52.7 kBtu/ft^2 (N = 137).[3] In 2020, the Building was less efficient than 82% of Boston K-12 schools. In the past 3 years, the Building's EUI has increased from 55.6 kBtu/ft^2 in 2018 to 86.0 kBtu/ft^2 in 2021, possibly due to increased ventilation demands in response to the COVID-19 pandemic. The trends in Building EUI indicate that energy use is increasing, and the Building is less energy efficient than the national and regional averages.

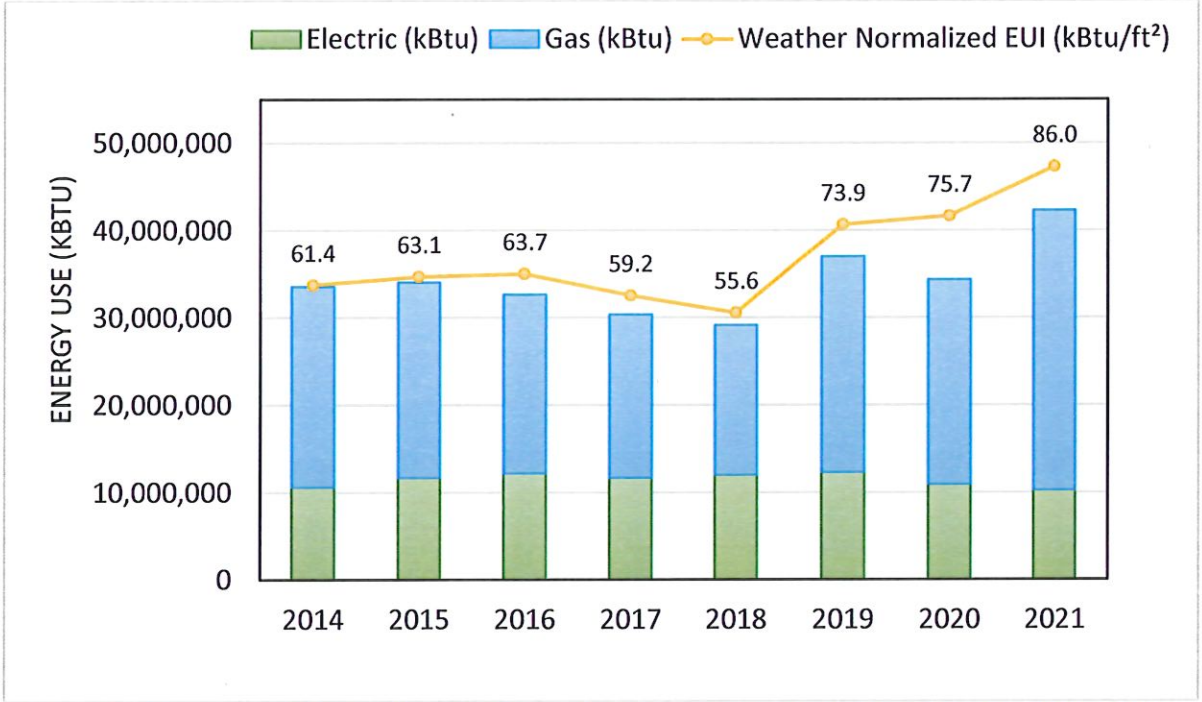


Figure 1 Energy Use and Weather Normalized Energy Use Intensity (EUI) for Medford High School from 2014 to 2021[4]

According to the U.S. Department of Energy, space heating and cooling and lighting account for approximately 70% of energy use in schools.[5] In 2021, the Building used 35.8 billion Btus of energy, 77.5% of which was from natural gas. Natural gas is primarily used in cooler months for heating, while electricity has many end-uses including lighting and space cooling in some parts of the Building. A 2009 study of 30 schools in Massachusetts assessed EUIs for fuel and electricity for standard and green buildings. The study reported an average fuel (gas and oil) use intensity of 42 kBtu/ft^2 (range 28 to 81 kBtu/ft^2) for standard schools compared to

[3] City of Boston. 2021. *2021 Reported Energy And Water Metrics*. https://data.boston.gov/dataset/b09a8b71-274b-4365-9ce6-49b8b44602ef/resource/a7b155de-10ee-48fc-bd89-fc8e31134913/download/2021-reported-energy-and-water-metrics.xlsx

[4] Gas bills for June 2020 and June 2021 were missing. Electric bills from May 2021 and June 2021 were missing. The gas usage for October 2019 was flagged as anomalous for being 16 times the average usage for the month of October.

[5] Energy Star. 2006. *Energy Star Building Manual: Chapter 10. Facility Type: K-12 Schools*. p. 3. Accessed on March 28, 2022 from: https://www.energystar.gov/sites/default/files/buildings/tools/EPA_BUM_CH10_Schools.pdf

34 kBtu/ft^2 (range 22 to 45 kBtu/ft^2) for green schools.[6] The gas intensity in 2021 for the Building was 60 kBtu/ft^2, which is 42% higher than the median for standard schools in Massachusetts. The electric EUI for the Building was lower than the median, likely due to the fact that most of the schools surveyed were built after 2000 and had air-conditioning in the entire building.

Energy efficiency in Massachusetts schools has improved over time due to state initiatives and energy saving projects. In March 2021, Massachusetts passed legislation to commit to net-zero emissions in 2050.[7] Several Massachusetts schools, have designed net-zero buildings, where the school produces as much energy as it consumes.[8] New construction or major renovation Zero-Net energy projects must have a target EUI of 25 kBtu/ft^2 or less.[9] For the Building to meet the energy efficiency target of 25 kBtu/ft^2, energy intensity would have to be reduced by more than half.

If you have any comments or questions, please contact either of us at 1-800-TALK EHE (1-800-825-5343).

Sincerely,

Matt A. Fragala, M.S., C.I.H., CSP
Managing Principal Consultant/Project Manager

Brian J. Baker, P.E.
Principal Engineer

Appendix A Limitations
Appendix B References

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[6] MRET and MSBA. 2009. *Massachusetts Green Schools: Post-Occupancy Study of Energy Efficiency.* p. 34. Accessed on March 28, 2022 from: https://chps.net/sites/default/files/MA_POStudy_FINAL_110509.pdf

[7] https://www.mass.gov/news/governor-baker-signs-climate-legislation-to-reduce-greenhouse-gas-emissions-protect-environmental-justice-communities#:~:text=The%20legislation%20signed%20by%20Governor,of%20no%20less%20than%2050%25

[8] https://www.massschoolbuildings.org/programs/story_of_a_building/Dec_2021

[9] Mass Save. *Commercial New Construction or Major Renovation Path 1: Zero-Net Energy / Deep Energy Savings.* Accessed on March 29, 2020 from: https://www.massschoolbuildings.org/sites/default/files/edit-contentfiles/Programs/Story_Of_A_Building/May_2021/New_Construction_Overview_Path1.pdf

APPENDIX A
LIMITATIONS

1. Environmental Health & Engineering, Inc.'s (EH&E) assessment described in the attached report number 25440, *Environmental and HVAC System Review, Medford High School, Medford, Massachusetts* (hereafter "the Report"), was performed in accordance with generally accepted practices employed by other consultants undertaking similar studies at the same time and in the same geographical area; and EH&E observed that degree of care and skill generally exercised by such other consultants under similar circumstances and conditions. The observations described in the Report were made under the conditions stated therein. The conclusions presented in the Report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services.

2. Observations were made of the site as indicated within the Report. Where access to portions of the site was unavailable or limited, EH&E renders no opinion as to the condition of that portion of the site.

3. The observations and recommendations contained in the Report are based on limited environmental sampling and visual observation and were arrived at in accordance with generally accepted standards of industrial hygiene practice. The sampling and observations conducted at the site were limited in scope and, therefore, cannot be considered representative of areas not sampled or observed.

4. When an outside laboratory conducted sample analyses, EH&E relied upon the data provided and did not conduct an independent evaluation of the reliability of these data.

5. The purpose of the Report was to assess the characteristics of the subject site as stated within the Report. No specific attempt was made to verify compliance by any party with all federal, state, or local laws and regulations.

APPENDIX B
REFERENCES

EPA 40 CFR 61.145. National Emissions Standards for Hazardous Air Pollutants. *Code of Federal Regulations*, Title 40, Part 61, Section 145, Standard for Demolition and Renovation. Washington, DC: U.S. Environmental Protection Agency.

EPA 40 CFR 763. Asbestos. *Code of Federal Regulations*. Title 40, Part 763, Subpart E, Asbestos-Containing Materials in Schools. Washington, DC: U.S. Environmental Protection Agency.

EPA 40 CFR 763.85. Asbestos. *Code of Federal Regulation*s, Title 40, Part 763, Section 85, Inspections and Reinspections. Washington, DC: U.S. Environmental Protection Agency.

MADEP 310 CMR 7.15. Air Pollution Control. *Code of Massachusetts Regulations.* Title 310, Part 7, Section 15, Asbestos. Boston, MA: Commonwealth of Massachusetts, Department of Environmental Protection.

MADLS 453 CMR 6.14, The Removal, Containment or Encapsulation of Asbestos. *Code of Massachusetts Regulations,* Title 453, Part 6, Section 14, Work Practices and Other Requirements for Asbestos Response Actions, Boston, MA: Commonwealth of Massachusetts, Department of Labor Standards.

OSHA 29 CFR 1910. Occupational Safety and Health Standards. *Code of Federal Regulations.* Title 29, Part 1910. Washington, DC: U. S. Occupational Safety and Health Administration.

OSHA 29 CFR 1926. Safety and Health Regulations for Construction. *Code of Federal Regulations*, Part 29, Title 1926. Washington, DC: U.S. Occupational Safety and Health Administration.

OSHA 29 CFR 1926.62. Safety and Health Regulations for Construction. *Code of Federal Regulations*, Part 29, Title 1926, Section 62, Lead. Washington, DC: U.S. Occupational Safety and Health Administration

OSHA 29 CFR 1926.1101. Safety and Health Regulations for Construction. *Code of Federal Regulations*, Part 29, Title 1926, Section 1101, Asbestos. Washington, DC: U.S. Occupational Safety and Health Administration.

Medford Public Schools

489 Winthrop Street, Medford, Massachusetts 02155

From the Medford School Committee April 3, 2023

Resolved: Having convened in an open meeting on April 3, 2023, prior to the SOI submission closing date of April 14, 2023, the School Committee of the City of Medford, in accordance with its charter, by-laws, and ordinances, has voted to authorize Superintendent Marice Edouard-Vincent to submit to the Massachusetts School Building Authority the Statement of Interest Form dated April 2023 for Medford High School located at 489 Winthrop Street which describes and explains the following deficiencies and the priority categories for which an application may be submitted to the Massachusetts School Building Authority in the future.

The Medford School Committee hereby further specifically acknowledges that by submitting this Statement of Interest Form, the Massachusetts School Building Authority in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any other funding commitment from the Massachusetts School Building Authority, or commits the City of Medford to filing an application for funding with the Massachusetts School Building Authority.

2023 Medford High School MSBA Core Program Statement of Interest Summary:

Replacement, renovation or modernization of school facility systems, such as roofs, windows, boilers, heating and ventilation systems, to increase energy conservation and decrease energy related costs in a school facility.

Having been originally constructed in 1970 and with substantial portions of the building's infrastructure dating from that time, Medford High School's (MHS) operating systems, including but not limited to its pneumatic-controlled HVAC systems, roofs, windows, plumbing, and electrical systems have long outlived their useful life expectancy and/or are in very poor working condition. In addition to major energy deficiency challenges posed by these antiquated systems, which were identified recently in a facilities condition assessment and accompanying follow up analysis, the MHS facility features suboptimal ADA accessibility, fire safety, security and technology infrastructure that would potentially be addressed through an MSBA partnership.

MPS seeks to submit this Statement of Interest to explore possible remedies to environmental challenges plaguing MHS attributable to highly antiquated systems like single pane windows and plumbing and heating systems that have too frequently proved inadequate to withstand the fluctuations in weather patterns that are inevitable in the greater Medford area. In addition to escalating and wasteful utilities expenses, extreme temperatures and leaky or burst pipes have yielded significant disruptions to learning environments for students and educators.

While these challenges have been persistent over an extended period of time, the volume and urgency of the challenges have grown exponentially since the Medford Public Schools submitted its previous State of Interest and participated in the MSBA's senior student visit process over the course of the last year. Three separate hallways have been forced to be shut down due to the detection of abnormal and potentially dangerous levels of asbestos attributable to broken floor panels. Despite the winter of 2022-2023 being relatively mild, the school's pattern of burst pipes has worsened with multiple major failures resulting in the flooding and forced closures of classrooms with costly and expedited repair projects a near constant phenomenon. Finally, multiple critical incidents requiring rapid responses from public safety officials, ranging from medical emergencies to two well-documented physical altercations between students, have laid bare the inherent safety and security deficiencies of Medford High School during the current and, as yet unfinished, school year.

As noted just one year ago when students returned to in-person learning in school year 2020 - 2021 after the pandemic-related shutdowns, MPS made a concerted effort to repair HVAC systems in order to meet heightened air quality standards that were believed to help mitigate the spread of COVID-19. These efforts along with an emphasis on fresh air to increase the frequency of air exchanges in confined spaces put additional pressure on HVAC systems that by virtue of their age alone were overly taxed. In the aforementioned report and studies, MHS was estimated to expend 77% more energy than an average American school facility. While MPS will continue to identify ways to identify energy efficiency strategies in the short term, the continued reliance on a 600,000 square foot facility that now houses a fraction of the student population it once did will continue to pose major challenges from an energy conservation perspective.

Finally, while frequent air quality testing and environmental analysis has continued to demonstrate that MHS is currently a safe environment for students and staff, the materials used to build the school over 50 years ago yield considerable challenges with respect to costs and the removal of hazardous materials in the event of significant repair work, which given the school's poor functioning electrical and plumbing infrastructure represents an ongoing considerable financial risk.

Replacement of or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements.

In 2017, after decades of functioning as two distinct schools housed in one building, the Medford School Committee voted to merge Medford High School and Medford Technical Vocational High School into one comprehensive high school featuring a broad array of academic and approved ch. 74 vocational programming. Since that time, MHS has seen an increasing number of students choose to commit to studying in one of Medford's 15 approved ch. 74 vocational programs, rising from 22% of the eligible students in school year 2017 - 2018 to 45% today. This increasing investment and interest on the part of Medford students and families in vocational programming

has made the full integration and cohesion of the entire school community an urgent priority for the Medford Public Schools.

In addition to the climate and logistical challenges posed by the environment deficiencies referenced above, the antiquated infrastructure of MHS has also posed instructional and enrollment challenges in light of the increasing competitiveness of the school's vocational programs. Several of the ch. 74 programs lack adequate related classroom space, which significantly diminishes educators' ability to convene groups of students to engage in focused discussions on the disciplines they are learning. In addition, several programs, including but not limited to Health Assisting and Electrical, have found their enrollments necessarily capped due to a scarcity of space in their labs and shops.

In addition to the district's inability to provide seats in existing programs commensurate with the level of interest, an analysis by the Metro North Workforce Board has urged the consideration of the development of additional ch. 74 programs including but not necessarily limited to Plumbing, Animal Science, Dental Assisting, and Information Support Services/Networking. Given the exploding popularity of the school's existing programs, and the interest being expressed in these and other prospective programs, there is a compelling basis to consider the development and adoption of programs that will position students to gain mastery of these workforce-sustaining educational pathways.

In addition to the need to meet the demands of the Medford community by offering a full complement of vocational programming, MPS is eager to consider ways to more fully integrate what were once two schools into a comprehensive school community so students can leverage a diverse array of academic and vocational programming in an environment that is well-suited to meet their instructional needs. To that end the aforementioned environmental deficiencies that lead to wildly fluctuating temperatures and classes that are routinely relocated to other sections of the building due to burst pipes, damaged heating coils, or failing technology systems has become an all-too-common distraction to the educational environment that MHS students require. During the current school year alone, multiple vocational programs have seen major disruptions to their instructional sequencing due to significant leaks in their lab or shop areas. Further, multiple guidance offices have been forced to temporarily relocate due to the persistence of the leaking during inclement weather. In addition to these types of distractions, the building's culture is negatively affected by an antiquated architectural structure in which over one third of the learning environments offer either no or virtually no natural light.

Students have frequently described their flagship school as bleak with a persistent sense of foreboding that is exacerbated by multiple undersized cafeterias that cause supervisory challenges to staff and logistical challenges for students seeking fresh and hot meals. Venues that should serve as hospitable gathering places for the school community like the auditorium and lecture halls are instead associated with constantly malfunctioning HVAC systems that diminish both opportunities for learning and the overall school culture.

Finally, while the district has invested in staffing and security cameras to help ensure the school's physical safety, the lack of optimal security infrastructure constitutes a subtle but persistent distraction to students. This too is not a problem in the abstract. On multiple occasions during the first half of the 2022 - 2023 school year, school administrators and public safety officials were forced to respond to in-school emergencies for which the school's cavernous scale and deficient technologies posted obstacles both with respect to immediate response and subsequent investigatory steps.

These deficiencies are indicative of how the school's aging and deteriorating infrastructure has affected both the development of educational programs and the capacity for students and staff to thrive from a teaching and learning perspective within those programs.

Signed by the Chair of the Medford School Committee, Mayor Breanna Lungo-Koehn

Adam L. Hurtubise
City Clerk
ahurtubise@medford-ma.gov

City of Medford

OFFICE OF THE CITY CLERK

City Hall - Room 103
85 George P. Hassett Drive
Medford, Massachusetts 02155

Telephone
(781) 393-2425
FAX: (781) 391-1895

April 12, 2023

Mr. James A. MacDonald
Chief Executive Officer
Massachusetts School Building Authority
40 Broad Street
Boston, MA 02109

Dear Mr. MacDonald:

On April 11, 2023, the Medford City Council voted to approve Paper **23-090**, the MSBA Statement of Interest on behalf of Medford High School. The vote to approve the paper was seven in favor and zero opposed.

I have included with this letter a certified copy of the Council Paper, including a certified record of the vote total.

I have also included the Seal of the City of Medford on this letter.

Thank you for your attention to this matter. Please feel free to contact me if you have any questions.

Sincerely yours,

Adam L. Hurtubise
City Clerk

Medford City Council

11-23 4-11-23 2023

Paper # 23- 080

Subject: Support filing in BD Applic

Ge Medford Public	YES	NO	ABSENT
S. Lewis VICE PRESIDENT BEARS	✓		
COUNCILLOR CARAVIELLO	✓		
COUNCILLOR COLLINS	✓		
COUNCILLOR KNIGHT	✓		
COUNCILLOR SCARPELLI	✓		
COUNCILLOR TSENG	✓		
PRESIDENT MORELL	✓		
TOTAL	7	0	

IN CITY COUNCIL, APRIL 11, 2023

23-090

April 5, 2023

Via Electronic Delivery
To the Honorable President and
Members of the Medford City Council
Medford City Hall
Medford, MA 02155

Re: MSBA Statement of Interest

Dear President Morell and Members of the City Council:

I respectfully request and recommend that your Honorable Body approves the Massachusetts School Building Authority (MSBA) Statement of Interest on behalf of Medford High School that has been prepared by the Medford Public Schools for consideration for the MSBA's Core Program. This submission is in follow up to the March 27th letter you received from the Superintendent of Schools.

Superintendent Marice Edouard-Vincent will be available at your meeting should there be any questions or additional information that members would like to obtain.

Thank you for your consideration.

MSBA REQUIRED FORM OF VOTE TO SUBMIT STATEMENT OF INTEREST

Resolved: Having convened in an open meeting on April 11, 2023, prior to the SOI submission closing date, the City Council of the City of Medford, in accordance with its charter, by-laws, and ordinances, has voted to authorize Superintendent Marice Edouard-Vincent to submit to the Massachusetts School Building Authority the Statement of Interest Form dated April 2023 for Medford High School located at 489 Winthrop Street which describes and explains the following deficiencies and the priority categories for which an application may be submitted to the Massachusetts School Building Authority in the future.

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medical emergencies to two well-documented physical altercations between students, have laid bare the inherent safety and security deficiencies of Medford High School during the current and, as yet unfinished, school year.

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school's vocational programs. Several of the Ch. 74 programs lack adequate related classroom space, which significantly diminishes educators' ability to convene groups of students to engage in focused discussions on the disciplines they are learning. In addition, several programs, including but not limited to Health Assisting and Electrical, have found their enrollments necessarily capped due to a scarcity of space in their labs and shops.

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These deficiencies are indicative of how the school's aging and deteriorating infrastructure has affected both the development of educational programs and the capacity for students and staff to thrive from a teaching and learning perspective within those programs.

Very truly yours,

Mayor Breanna Lungo-Koehn

Medford Public Schools

489 Winthrop Street, Medford, Massachusetts 02155

Dr. Marice Edouard-Vincent, Superintendent of Schools

March 27, 2023

Medford City Council % President Nicole Morrell
85 George P. Hassett Drive, Room 207
Medford, MA 02155

Re: Upcoming MSBA Core Program Application

Dear President Morrell and Honorable Members of the Medford City Council:

As you may recall, one year ago the Medford Public Schools submitted to your honorable body a request for authorization to submit a Statement of Interest to the Massachusetts School Building Authority (MSBA) on behalf of Medford High School. We were delighted in the summer of 2022 when we learned that representatives from the MSBA would be conducting what is known as a "senior student" visit to MHS, which occurred in October of 2022. While we ultimately did not move forward to the next stage of the process last year, known as the eligibility period, we were both heartened and

encouraged when the MSBA communicated to us our hope that we would resubmit our application during the application period for 2023. It is for that reason that we will, via a mayoral communication, submit to you at your first meeting in April the required statutory language in the hope that you will again authorize the submission of our SOI.

The Statement of Interest (SOI) is a preliminary step in seeking support from the MSBA to examine our community's options with respect to the future of Medford High School. It does not commit the city to any specific plan or course of action, nor would acceptance of the SOI necessarily represent a commitment on the part of the MSBA to support a specific strategy with regard to either extensively renovating or potentially rebuilding Medford High School. However, in order to get into the MSBA's pipeline for consideration of a potential project, submission of the SOI is a necessary first step. For that reason we have engaged in ongoing consultations with experts in the field of school construction and rehabilitation, specifically vendors with significant experience and involvement in other successful MSBA projects, to determine how to best position our application for favorable consideration by the MSBA. As I relayed to you last year at this time, should we be successful, there will be a lengthy, inclusive, and professionally guided process by which to determine the potential options before the Medford community.

It is not uncommon for communities to advocate before the MSBA for projects over a period of years, and in addition to 2022, your honorable body unanimously approved applications like this in 2018 and 2019. I again would respectfully ask for your support. Thank you as always for your continued support of the Medford Public Schools.

Yours in Continued Partnership,

Marice Edouard-Vincent

Dr. Marice Edouard-Vincent,
Superintendent of Schools

CC: Medford School Committee

Councillor Collins moved to waive reading of the paper in lieu of a synopsis from the Superintendent (Councillor Caraviello second)—approved.

Addressing the Council:

Dr. Marice Edouard-Vincent, Superintendent of Schools

Councillor Knight moved for approval (Vice President Bears second)—approved on a roll call vote of seven in favor and zero opposed.

Department of Elementary and Secondary Education
Massachusetts School Building Authority
Chapter 74 Vocational Technical Education Viability Documentation

Date: Jun 25, 2024

School District (the "District"): Medford Public Schools

Superintendent: Dr. Marice Edouard-Vincent

Author(s) of the Chapter 74 Viability Form (Name, Title): Jenny Graham MCHSBC Chair, Dr. Peter J. Cushing Assistant Superintendent of Enrichment and Innovation, Chad Fallon Director of Medford Vocational Technical High School

This form and other information and evidence referenced herein must be submitted as a component of all Massachusetts School Building Authority (https://massschoolbuildings.org/about) projects that include plans to:

- Continue to offer existing Chapter 74 state-approved Vocational Technical Education (VTE) programs;
- Expand the size of, contract the size of, or close existing Chapter 74 state-approved Vocational Technical Education (VTE) programs; and/or,
- Add new Chapter 74 state-approved Vocational Technical Education (VTE) programs.

Completed forms and attachments should be returned to the MSBA Project Coordinator.

NOTE: The information provided by MSBA applicants does not eliminate the requirement to engage the MA Department of Elementary and Secondary Education's Chapter 74 New Program Application process in its entirety **in the year prior** to the proposed program's opening. However, submission of this information will allow DESE to provide MSBA with a "**viability**" letter that would result in a potential recommendation that the MSBA Board of Directors vote to authorize the district to proceed into the schematic design phase of the building project.

A. Overview of Chapter 74 Programs

1. **General Information.** Complete the table below for all current and proposed Chapter 74 Programs to be considered for inclusion in the proposed project.

Chapter 74 Program Offerings	2023 - 2024 Enrollment	Proposed Capacity /Applicable School Year	Comment*
Existing			
Automotive Tech	30	40 FY26	In addition to space needs, the district will need an additional teacher to reach expanded capacity. See attached for School Committee approval.
BioTechnology	17	30 FY26	
Business Marketing	19	20 FY26	Space limitations
Carpentry	20	30 FY26	
CCL - Construction & Craft Laborers	39	45 FY26	
Cosmetology	24	37 FY25	In addition to space needs, the district will need an additional teacher to reach expanded capacity. See attached for School Committee approval.
Culinary	34	35 FY25	
Early Childhood	18	30 FY26	

Electrical	40	60 FY26	In addition to space needs, the district will need an additional teacher to reach expanded capacity. See attached for School Committee approval.
Graphic Design	18	20 FY25	
Health Assisting	32	50 FY27	In addition to space needs, the district will need an additional teacher to reach expanded capacity. See attached for School Committee approval.
Media Tech	29	40 FY26	
Metal Fabrication	12	15 FY26	The district will need an additional teacher to reach expanded capacity in the area of 30 students. Space is not currently an issue for expansion.
Robotics & Engineering	34	40 FY26	
Programming and Web Design	23	20 FY25	
Grade 9 Exploratory	298	300 (EST)	
Proposed New			
Dental Assisting	N/A	24, FY29	Plan to begin programming before the new HS; timeline dependent on DESE approval and budget allocation
Veterinary Science	N/A	24, FY28	Plan to begin programming before the new HS; timeline dependent on DESE approval and budget allocation
Criminal Justice/Protective Services	N/A	Proposed Capacity 30, FY26	Dual enrollment opportunity with Bunker Hill Community College
Plumbing/HVAC		24, New High School	The Plumbing CTE program cannot begin before space is available in the new HS.
Information Systems - OT/Networking - Cyber Security		24, FY27	Plan to begin programming before the new HS; timeline dependent on DESE approval and budget allocation
Total	687	938	

** Indicate whether the program is an existing program, proposed to be expanded, a new program, a program to be scaled down, or program to be discontinued.*

2. **School Committee Support.** Provide a copy of the school committee meeting minutes, which include language and outcome of the vote regarding the Chapter 74 Programs to be studied as part of the feasibility study for the proposed project.

   Medford Response:
   Expansion plans were presented to the School Committee on 5/20/2024. See the attached presentation. Motion by Member Graham for the School Building Committee to explore the program expansions and new programs outlined in the SBC feasibility study, second by Member Reinfeld - 7/0 passed

B. <u>If Expanding the Size of Existing Chapter 74 Programs</u>

1. **General Information.** Please provide the name of your district, and the existing Chapter 74 program(s) you are proposing to expand in conjunction with this MSBA project.

   Medford Response:

Medford Public Schools seeks to expand several CTE programs due to waitlist data compiled over several years. We are seeking expansion in the following Chapter 74 programs: Automotive Technology, Cosmetology, Electrical, and Health Assisting. These programs historically are over-subscribed and a waitlist is generated. See above for proposed expansion plan. The School Committee approved the expansion plan unanimously at the 5/20/2024 School Committee Meeting.

2. **Student Demand.** Please provide evidence of increased student demand for the Chapter 74 programs you propose to expand. The best source of data for this would include recent waitlist trend data for both entrance to the school (which will provide evidence for the expansion of 9th grade exploratory) and in student selection of programs after completing exploratory.

   Medford Response:
   Currently, we have 687 students participating in a CTE program (including CTE Exploratory). Due to enrollment constraints, we are not able to offer any seats to out-of-district students, which we have done in many of the past years. The practice of admitting out-of-district students ended in school year 23/24 due to enrollment constraints. For the programs listed as "Expanded," we have reviewed waitlist data for the past five years, which demonstrates the need for expanded CTE opportunities across programs. Many always have more requests than seats available (noted in the chart above).
   - School year 21/22 - 14
   - School year 22/23 - 65
   - School Year 23/24 - 47

C. **If Adding New Chapter 74 Programs**

1. **General Information.** Please provide the name of your district, and the new Chapter 74 program(s) you are considering applying for in conjunction with this MSBA project.

   Medford Response:
   Medford Public Schools is seeking new program approval in the following Chapter 74 program areas: Criminal Justice, Dental Assisting, Information Systems, Plumbing/HVAC, and Veterinary Science.

2. **Alignment with Regional Workforce Development Priorities and Critical Industries and Occupations.** The Governor's Office and DESE seek to ensure that Chapter 74 program approvals align with regional workforce needs. The Department encourages Chapter 74 program applications that:
   - Align with regional occupational priorities as outlined in the state's MassHire regional workforce development Blueprints; and
   - Demonstrate evidence of consultation and collaboration involving regional MassHire Boards (formerly Workforce Investment Boards); school districts, including regional vocational technical school districts and, where applicable, county agricultural school districts; postsecondary educational institutions; and other key regional stakeholders as appropriate.

   Proposed programs that do not align with priorities and critical needs as outlined in a regional Blueprint may still be viable, if they are accompanied by an analysis of need that is grounded in labor market demand, student demand, and support from the stakeholders listed above.

REGION 1: Berkshire - Includes Berkshire Workforce Area REGION 2: Pioneer Valley - Includes Franklin/Hampshire and Hampden Workforce Areas REGION 3: Central Massachusetts - Includes North Central and Central Massachusetts Workforce Areas REGION 4: Northeast - Includes Greater Lowell, Lower Merrimack and North Shore Workforce Areas REGION 5: Greater Boston - Includes Boston (Private Industry Council), Metro North, and Metro South/West (Partnerships for a Skilled Workforce) Workforce Areas

REGION 6: Southeast - Includes South Shore, Brockton, Bristol, and New Bedford Workforce Areas
REGION 7: Cape Cod and Islands - Includes Cape Cod and Islands Workforce Area

Does the Chapter 74 program (or programs) you are considering align with a priority industry sector and/or occupation for your region of the Commonwealth for the next 5 to 10 years?

Medford Response:
The Medford High School CTE program plans to add Veterinary Science, Criminal Justice, Plumbing, Dental Assisting, and Information Services, all of which align with the following statements:

☒ Yes, the program(s) we are considering align with a priority or critical **industry and occupation** within the region. Again, this is true for Veterinary Science, Criminal Justice, Plumbing, Dental Assisting, and Information Services based on our industry sector research.

3. **Labor Market Demand.** If the proposed program does not align with regional priorities or critical industries and occupations outlined in Question 2 above, it is the obligation of the applicant to make a compelling case for the viability of the program with respect to labor market demand. If you were able to answer 'Yes' to any of the conditions described in Question 2 above, no further labor market demand information is required.

Medford Response:
Not Applicable

4. **Student Demand.** Please provide preliminary evidence of student demand for the proposed new programs (this could include recent waitlist trend data, waitlist data for similar/proximate programs, and student demand for the new program(s) statewide and regionally). This is particularly important for proposed new capital-intensive programs such as those in the Agriculture and Natural Resources, Construction, or Transportation Clusters, or a program like Advanced Manufacturing.

Medford Response:
On Monday, May 20, 2024, District and School leadership presented evidence-based expansion plans to the Medford School Committee that align with our regional blueprints and local demand. The presentation is included as an appendix to this document. Of 332 survey responses from our 7th and 8th grade students:

- 83.1% expressed interest in adding Criminal Justice Protective Services to our vocational portfolio
- 66.9% expressed interest in adding Information Systems to our vocational portfolio
- 52.1% expressed interest in adding Dental Assisting to our vocational portfolio
- 59.8% expressed interest in adding Plumbing/HVAC to our vocational portfolio

5. **Consultation with Industry, MassHire Boards, and Postsecondary Partners.** New Chapter 74 programs under consideration must be planned in consultation with industry experts and postsecondary partners. The formal Chapter 74 application process requires the formation of Program Advisory Committee (see Program Advisory Committee for VTE Form). For the purposes of a MSBA project, preliminary consultation with your MassHire board, associated industries, and higher education representatives (where applicable) in your region is sufficient. Please provide evidence that this consultation has occurred and that such consultation included information about workforce and job development demands or job market trends and student demand.

Medford Response:

Three separate meetings were conducted (4/21/24, 5/1/24, 5/8/24) with our local MassHire agency for the purposes of aligning our new and expanded CTE program opportunities with local employment needs as well as what occupations are seen as "critical" to the industry over the coming years. A labor market data request was completed by the representatives at MassHire, which allowed us to see current data to support our plan to open new Chapter 74 programs that meet the demands of our region. As we reviewed potential program additions, we consulted our regional blueprints and viewed the hiring demand for each. We have worked with DESE on program expansions in the past and are prepared to comply with DESEs requirements around program advisory committees.

6. **Consultation with other potential providers of Chapter 74 programs in your region.** Please provide a description of any consultation that has already been conducted, along with consultation that is planned. See specific consultation expectations in the Consultation Appendix to guide your description.

Medford Response:
Our consultation with schools in our region has been limited to startup costs, startup planning, and survey consultation for developing a student survey of interests.

D. <u>Consultation Appendix</u>. Please review and address all parts that apply to your situation.

1. For Districts that are Members of Regional Vocational Technical Schools

Medford Response:
Not Applicable

DESE requires that applicant school districts that are members of regional vocational technical school districts consult, and provide evidence of consultation, with the regional vocational technical school district.

This expectation applies regardless of whether the program under consideration duplicates one currently available within the regional vocational technical school district. Consultation between school districts considering new Chapter 74 programs and the regional vocational technical school districts to which they belong is intended to encourage cooperation in the provision of technical programming, the coordination of efforts, and strategic alignment with regional workforce needs.

A. Please specify the regional vocational technical school district of which the prospective applicant is a member.

B. Does the program(s) you are proposing duplicate one currently offered at the regional vocational school district indicated above?

- ☐ No
- ☐ Yes

C. Have you engaged in discussions with the regional vocational technical school district regarding your consideration of the program(s) indicated above with respect to your MSBA project?

- ☐ No
- ☐ Yes, and I'm attaching additional documentation of these discussions

2. For Regional Vocational Technical Schools

Medford Response:
Not Applicable

DESE requires that regional vocational technical school districts consult, and provide evidence of consultation, with all member cities and towns. This expectation applies regardless of whether the program(s) under consideration duplicates ones currently available within any member cities and towns. Consultation between the regional vocational technical school districts and member cities and towns is intended to encourage cooperation in the provision of technical programming, the coordination of efforts, and strategic alignment with regional workforce needs.

A. What are the member cities and towns that comprise the regional vocational technical school district?

B. Have you engaged in discussions with all cities and towns that are members of your regional vocational technical school district regarding your consideration of the program(s) indicated above in relation to an MSBA funding application?

- ☐ No
- ☐ Yes, and I'm attaching additional documentation of these discussions

3. For Districts located within Bristol, Essex or Norfolk Counties:

Medford Response:
Not Applicable

NOTE: DESE requires that applicants consult, and provide evidence of consultation, when the Chapter 74 program(s) under consideration duplicates one already offered at Bristol County Agricultural High School, Essex North Shore Agricultural and Technical High School, or Norfolk County Agricultural High School in the same county. Consultation between school districts considering creation of Chapter 74 programs and the county agricultural school districts is intended to encourage cooperation in the provision of agricultural programming, the coordination of efforts, and strategic alignment with regional workforce needs.

A. Is your school district located within Bristol, Essex or Norfolk County?

Medford Response:
No

B. Are any program(s) you are proposing identical to a Chapter 74 program currently being offered at your Agricultural High School?

Medford Response:
Not Applicable

C. Have you engaged in discussions with your Agricultural High School regarding your consideration of the program(s) indicated above in relation to an MSBA funding application?

- ☐ ***Medford Response:***
- ☐ Not applicable.

4. For all applicants: Duplicating Programs Offered at High Schools in Close Proximity

NOTE: DESE requires that applicants consult, and provide evidence of consultation, when the Chapter 74 program(s) under consideration duplicates one already offered in another school district at a school in close proximity. Consultation between school districts considering creation of Chapter 74 programs and school districts offering the identical program at a school in close proximity is intended to encourage cooperation in the provision of technical programming, the coordination of efforts, and strategic alignment with regional workforce needs. DESE suggests the following geographical boundaries to assist districts in determining "close proximity" as follows:

- For school districts in areas east of Route 495, any Chapter 74 programs within 5 miles of the proposed Chapter 74 program(s)

- For school districts west of 495, to the east border of Berkshire County, any Chapter 74 programs within 10 miles of the proposed Chapter 74 program(s)
- For school districts in Berkshire County, any Chapter 74 programs within 20 miles of the proposed Chapter 74 program(s)

A. *Are any of the programs you are proposing identical to a Chapter 74 program currently being offered in another school district in a school in close proximity?*

Medford Response:
Yes

B. *What are the names of the school districts currently offering identical Chapter 74 programs at a school in close proximity?*

Medford Response:
- *Somerville High School*
- *Cambridge Rindge & Latin*

C. *Have you engaged in discussions with the school district(s) with schools in close proximity offering the same program regarding your consideration of the program indicated above in relation to an MSBA funding application?*

Medford Response:
No, we have not engaged in discussion with the school district(s) indicated above. The schools noted above currently limit their enrollment to students from their own city. Similarly, Medford's focus is to provide programming to Medford resident students. Survey data from our students indicates that offering this programming will fulfill the unmet needs of the students of Medford.

Massachusetts School Building Authority

School District Educational Profile Questionnaire (the "Questionnaire")

Date June 30, 2024

Name of School District (the "District"): Medford Public Schools

Name of Priority Statement of Interest School: Medford High School

Author(s) of the Educational Profile Questionnaire (Name, Title):
Marice Edouard-Vincent, Superintendent
Suzanne B. Galusi, Assistant Superintendent
Peter J. Cushing, Assistant Superintendent
Joan Bowen, Director of Pupil Services
Marta Cabral, Principal
Chad Fallon, Career Technical Education Director

As part of the District's invitation into the Eligibility Period, the MSBA is seeking the following information as a way to confirm what the District provided in its 2023 Statement of Interest and discussions during the Senior Study, and to further inform our understanding of the School District's facilities, teaching methodology, and program offerings.

SECTION ONE: District-wide Facilities

A. Please confirm the following pre-populated MSBA 2016 School Survey information for all public schools in the District using a "Y" for accurate and "N" for not accurate. Additionally, please complete any non pre-populated information.

School Name	Grades originally intended to be served in the school facility	Grades currently served in the school facility	Year Founded	Last Add or Reno Year	Total GSF	Y/N
Brooks Elementary School	PreK-5	PreK-5	2003	N/A	99,000	Y
Missituk Elementary Schoo	PreK-5	PreK-5	2003	N/A	91,000	Y
Curtis-Tufts High School	9-12	9-12	1924	N/A	18,800	Y
John J. McGlynn Elementary School	PreK-5	K-5	2001	N/A	80,000	Y
John J. McGlynn Middle School	6-8	6-8	2001	N/A	106,090	Y
Madeleine Dugger Andrews Middle School	6-8	6-8	2001	N/A	104,040	Y

School Name	Grades originally intended to be served in the school facility	Grades currently served in the school facility	Year Founded	Last Add or Reno Year	Total GSF	Y/N
Medford High		Pre-K, 9-12	1970	2013 Science Wing	330,000	Y
Medford Voc Tech High V&A-HS	9-12		1970	N/A	84,509	Y
Milton Fuller Elementary Roberts School	PreK-5	PreK-5	2003	N/A	91,000	Y

B. Using the space below, please describe how students progress from grades K to 12 (e.g. students from North Elementary School attend East Middle School, students from South Elementary School attend West Middle School, and students from both middle schools attend ABC High School). Additionally, please update any inaccurate School Survey data that was pre-populated.

Medford Public Schools encompasses a total of four (4) elementary schools (PreK-5), two (2) middle schools (6-8), and one (1) high school (9-12) which includes a separately located therapeutic high school (Curtis-Tufts) (9-12). At the elementary level (K-5), students are typically assigned to a specific school based on their residential address. However, exceptions may be made for those needing specialized programs, such as Special Education or English Language Learner programs (Language-Based, Learning Group, Access, Therapeutic Learning Program, Connections, Newcomer).

For the transition from grade 5 to grade 6, a lottery is conducted to determine middle school placement, with students being assigned to either McGlynn Middle School or Andrews Middle School. Again, exceptions exist for students requiring specialized programming, who are instead assigned based on programming needs rather than through the lottery process.

At the close of 8th grade, all students are automatically assigned to Medford High School. This school serves students in grades 9-12. Based on need, students are enrolled in Medford's therapeutic high school programming, Curtis-Tufts, which serves students in grades 9-12.

All students in grade 9 are scheduled to participate in Freshmen Exploratory which allows students to rotate through all CTE Programs during quarters 1 and 2, except for those at Curtis-Tufts. For students interested in one of our vocational programs, they then select their top three choices for grades 10 - 12 pathways. Students are placed in one of their top 3 CTE choices. If all of those CTE choices are full, then the students are waitlisted and invited to join the program once space becomes available. See Medford's Chapter 74 Viability Form for additional details.

SECTION TWO: Current Priority Statement of Interest School, Medford High School

A. Please complete the chart below indicating the number of each room type currently in the Medford High School. Please use the Comments column to further describe a program, if applicable.

ROOM TYPE	No. of Rooms (e.g. N/A, 1, 2, etc.)	Comments
CORE ACADEMIC SPACES		
Pre-Kindergarten (indicate full/ half day in the Comments column)	2	1 classroom each in both the Make Way for Kids and Kids' Corner programs
Kindergarten (indicate full/ half day in the Comments column)	N/A	
Grade 1	N/A	
Grade 2	N/A	
Grade 3	N/A	
Grade 4	N/A	
Grade 5	N/A	
Grade 6	N/A	
Grade 7	N/A	
Grade 8	N/A	
Math (Grades 9-12)	14	
Science/ General Classroom (Grades 9-12)	1	
Science Lab/ Demonstration (Grades 9-12)	17	
Social Studies (Grades 9-12)	13	
English (Grades 9-12)	14	
World Language (Grades 9-12)	10	
Other (indicate program in the Comments column)	17	5 English Learner ELA, 1 English Learner Math, 1 English Learner Science, 1 English Learner Social Studies, 1 room for professional development/meetings, 8 IT closets (servers, switches & other IT Spaces)
SPECIAL EDUCATION	39	19 classrooms, 20 small service spaces
ART	3	
MUSIC	13	3 Classrooms, 1 Music Library, 1 Music Tech Lab, 8 Instrument Storage Rooms
Practice Rooms	8	
HEALTH & PHYSICAL EDUCATION	18	
Adaptive PE Spaces	0	Adaptive uses same spaces as other PE/Health classes
Gymnasiums/fields/pool/fitness center/gymnastics room/classrooms	18	2 gyms, 2 fields, 1 fitness center/weight room, 1 gymnastics room, 1 Athletic Director Office, 1 Assistant Athletic Director/Director of Physical Education and Health Office, 1 Administrative Assistant Office,

ROOM TYPE	No. of Rooms (e.g. N/A, 1, 2, etc.)	Comments
		3 Health / Physical Education Classrooms, 2 Batting Cages, 1 Athletic Training Room, 1 - 8 Lane Swimming Pool, 1 Boys PE Locker Room, 1 Girls PE Locker Room
MEDIA CENTER	32	1 large workroom with librarian's office, 2 small workrooms with 1 attached office, 3 storage closets/rooms, 1 office with a work area for an assistant, 1 office/workroom for technician, 3 classrooms, 1 small lab with an office, 1 large lab with 1 office, 4 offices with closets, 1 former darkroom now being used for storage, 1 small storage closet, 1 large storage room for equipment, 1 presentation room, 1 computer science classroom, 1 large lab with 25 workstations, 1 small interior classroom, 1 Director's office, 1 small office with closet, 2 small, windowless offices, 1 CCSR presentation space, 1 Makerspace, 1 main library room for over 100 chairs, and 12 Mac workstations - one wall is all window facing the inner courtyard with high top tables and bean bag seating for students.
DINING & FOOD SERVICE	3	There are 3 cafeterias 1 Main Kitchen 3 Serving lines
MEDICAL SUITE	1	Medical Suite with nurses' office
Nurses' Office	6	1 main office with waiting area and administrative space, 1 storage space, 2 treatment spaces, 1 confidential nurse office, 1 bathroom with shower
ADMINISTRATION & GUIDANCE	47	3 House Office Suites include the following (3x10): • 1 AP office • 5 Counseling offices • 1 Storage Room • 1 Conference Room • 1 Administrative Assistant

ROOM TYPE	No. of Rooms (e.g. N/A, 1, 2, etc.)	Comments
		Space/Waiting Room • 1 Special Education/Director Office 1 Main Office that includes the following (1x11): • 1 Principal Office • 1 Associate Principal Office • 1 Security/Camera Office • 1 SRO Office • 1 Kitchenette • 1 Vault for record storage • 1 main waiting room with space for 2 administrative assistants • 1 Conference room • 1 Counseling office • 1 Office for Attendance Office.Engagement Specialist • 1 Director of Humanities Office 1 CTE Main Office that includes the following (1x6): • 1 CTE Director Office • 1 waiting room with space for 2 administrative assistants • 1 Grants office • 1 storage closet • 1 Special Education Office • 1 Counseling Office
OUTDOOR LEARNING	0	
AUDITORIUM	4	3 lecture halls, 1 large hall that has approximately 350 seats and serves as a performance auditorium despite having substandard electrical, seating, and theatrical performance options.
NATATORIUM	1	Medford High School has an 8-lane swimming pool. **(Also Listed Above)**
DESE APPROVED CHPT 74 SPACES	26	Auto Technology + Related Classroom, Biotechnology, Business Marketing, Carpentry + Related Classroom, Construction and Craft Laborers + Related Classroom, Cosmetology + Related Classroom, Culinary Arts + Related Classroom, Early Childhood Education + Related Classroom, Electrical + Related Classroom, Engineering and Robotics + Related Classroom,

ROOM TYPE	No. of Rooms (e.g. N/A, 1, 2, etc.)	Comments
		Graphic Design + Related Classroom, Health Assisting + Related Classroom, Media Technology + Related Classroom, Metal Fabrication, Programming and Web Design,
NON-CHPT 74 ENRICHMENT PROGRAM SPACES	0	
NON-SCHOOL DISTRICT SPACES	0	
OTHER (indicate type of program in the Comments column)	36	1 lab for Project Transition program as well as the Living Lab (mock apartment for Project Transition students ages 18-22), 6 classrooms for Kids' Corner: A district-provided daycare facility for school and municipal employees. (There are also spots for community children to attend.), 1 classroom for Make Way for Kids: A preschool program organized and run by the Medford High School Vocational Program servicing community children ages 2.8 to 5 years, 20 offices for Central Administration Office wing consists of: Finance Department, Human Resource Department, Buildings & Grounds Department, Communications Manager, Superintendent, 2 Assistant Superintendents, Director of Student Services, and our district Data Analyist, 2 conference rooms for central administration, 2 classrooms for Medford Family Network: (Organization that provides wrap-around services to community families and their children from birth to age 8), 4 offices for Medford Family Network

B. Describe how 1) core spaces, 2) specialty spaces, and 3) non-traditional spaces described above are currently used (e.g. multiple schools operating in a single building, the library also serves as Special Education pull out space, the cafeteria doubles as a gymnasium, etc.)

Medford High is adjacent to the Middlesex Fells Reservation, managed by the state Department of Conservation and Recreation, with nearly 1km of shared boundary of the natural environment, forming a vital element of the School's visual character. The School's elevated position also offers stunning views of the Boston skyline.

The Medford High School campus includes traditional core academic spaces (classrooms/laboratories), specialty spaces, and non-traditional spaces (lecture halls, a Gym with a Pool, and three student cafeterias that function as swing spaces when necessary). The campus also includes an integrated Career &

Technical Education/Vocational program that shares all common spaces.

Core spaces

Currently, core academic spaces are used by teachers who remain in their classrooms throughout the day. They do not travel to other spaces except for teachers who co-teach in general education classrooms/settings, as the campus lacks specialty teaching spaces. Medford High School offers college preparatory, honors, and advancement placement courses. Additionally, Medford High School partners with Bunker Hill Community College, where students can enroll in college-level courses for credits toward graduation.

Vocational teachers who lead an individual program occupy two spaces: their classroom and their related shop. Medford High School offers departmental courses based on the MassCore and the Massachusetts Chapter 74 Frameworks for Career Technical Programs.

Specialized spaces

- Theater: Medford High School does not have an auditorium or large enough space to gather students together as a single community. It does have a theater space that houses our theater and music programs and course offerings. The theater is used daily for classes and doubles as a meeting space as needed by Medford Public Schools. Despite its deficient technology, there is high community demand for the space when school is not in session.
- Athletics Complex: Amidst the forested backdrop of the Middlesex Fells Reservation, Medford High School currently offers indoor and outdoor athletic facilities for activities such as swimming, basketball, volleyball, soccer, and lacrosse. These facilities include an 8-lane, 25-yard-long indoor swimming pool, a 270 by 110-foot indoor gymnasium, and the outdoor Edgerly Sports Complex, a 7.5-acre turf field.
- Indoor Swimming Pool: During the school day, the pool is used during physical education classes, including certification of all students to meet a Medford graduation requirement, and for our swim team. This pool serves the entire community and supports many programs, including lifeguard training, swim lessons, lap swimming, water aerobics, private rentals, and neighboring community/private swim teams.
- Indoor Gymnasium: The 270 by 110-foot indoor gym is used throughout the day for Physical Education classes. It doubles as a space for school-incorporated movement breaks, which require the use of dividers to separate the space, including during lunch periods. It hosts High Schoolers and community activities year-round. The facility has a four-lane indoor track, but the surface has deteriorated and is no longer suitable for competitive use.
- Associated accessory facilities: These include boys' and girls' locker rooms/showers, a gymnastics room with a gymnastics floor, pommel horse, vault, beam, and other associated gymnastics equipment, three athletics offices, an athletic trainer room with examination tables, therapeutic whirlpools and storage facilities for equipment, two batting cages, and a fitness center weight room combination space. These spaces currently have a high energy use intensity factor (as indicated in the EH&E report, 2022).
- Edgerly Sports Complex: The Medford Field of Dreams is an outdoor complex with 2 regulation soccer/lacrosse turf fields and a grass football practice field. It does not contain an outdoor track. The turf field was installed in 2010 and is comprised of turf and crumb rubber. The facility is not accessible according to today's ADA standards.
- Media Center: The large and spacious library has been repurposed in many ways since it opened

in 1970 and now houses several additional specialized spaces. The Media center houses several district administrative offices, our Center for Citizenship and Social Responsibility (CCSR) program that encourages student-directed community service projects, our maker space, our district technology center, computer science classrooms, and a traditional library/media center space. It once housed a darkroom that has since become a storage closet. Media Center: The library is also used for the following purposes due to lack of space:
    - CTE classroom space due to the lack of space in the vocational wing
    - State and National assessment space for students to take tests

- Project Transition Living Lab: This is a mock apartment for students with disabilities ages 18-22 who are enrolled in Project Transition. The curriculum is focused on individual students' transition from school to adult life. This space allows students to learn and generalize daily living skills, community-building skills, and vocational skills required for when they exit the program at age 22.
- Kids' Corner: A joint effort by the district and city to provide a daycare program for the children of Medford's school and municipal employees. The program contains six classrooms (young infant, older infant, young toddler, older toddler, preschool, and PreK) for children aged 2 months to 5 years. We also ensure space is available for high school students who require childcare throughout the school year.
- Medford Early Education Program (MEEP): Originally housed in the Medford High School building, but due to various space constraints over the years, programming is now housed in each of our elementary schools. MEEP is our inclusive preschool program designed to serve students with and without disabilities. MEEP serves students ages 3 through 5 who are not yet eligible for kindergarten. There are up to 15 children in each class. Up to seven students in each class are students with disabilities whose IEP Teams have placed them in that specific classroom. Up to eight students in each class are students without disabilities who enter through the application process.

Non-traditional/Other Spaces

- Lecture Halls: Due to the lack of appropriate space, Lecture Halls are used to cover teacher absences because the district lacks adequate substitute teachers to cover all absences. Instead, the lecture halls are staffed, and multiple classes simultaneously report to the same space. There, students are expected to access Google Classroom and complete any work assigned by their teacher.
- Administrative Offices: The public school system's central office is housed within Medford High School. This includes the Superintendent, Assistant Superintendents, Finance and Payroll, Communications, Human Resources, Buildings and Grounds, Parent Information Center and Registration, Department Offices of English Learners, Special Education, Nursing and Health, and Curriculum Directors.
- Community Usage: Medford High School is actively used by the community via our rental program for our theater space, gymnasium, pool, cafeteria, and library space to hold meetings, practices, and performances, our foyer to host special events, and individual classrooms for group and club meetings. Rental fees cover the costs of maintenance and staffing to support the events. There are some evening programs that take advantage of our vocational shops and community interested in an expanded offering.
- Medford Family Network (MFN): MFN is a citywide organization housed at Medford High

School that provides wrap-around services to community families and their children from birth to age 8.

- Parent Information Center: The PIC serves as a central hub for the school district and provides a wide range of important services. It includes the registration office, EL Department, Special Education Department, Family and Community Engagement Office, and the Nursing Department. The Parent Information Center assists families and caregivers as they navigate their transition into the school system. It serves as a valuable resource for addressing any questions or needs that may arise, ultimately providing vital support to ensure a smooth and successful experience within the district.

C. Using the space below, provide information about Medford High School's current teaching methodology (e.g. technology integration, self-contained classroom, team teaching, project based, departmental, or cluster). Include class size policies and, if applicable, scheduling particulars.

Teaching Methodology

- General Education: Medford High School's current teaching methodologies resemble a more traditional approach to instruction due to the lack of modern classroom space and cooperative and project-based learning spaces. With the merger of Medford High School, which included the previously separate vocational school in 2017, the configuration and landscape of the building could not be integrated, and the current configuration is not conducive to collaboration between CTE and core academic classes. At this time, Medford High School supports and encourages project-based learning. However, this approach is currently restricted by the space available and isolated within traditional classroom spaces and the library. Lastly, departmental cohesion has been impacted by the location of classrooms, which impedes collaboration within departments.
- Special Education sub-separate and inclusion classes: Medford High School offers co-taught inclusion classes that include two teachers (a general education teacher and a special education teacher). Additionally, special education delivery services range from co-teaching and resource room classes to self-contained programs for students with disabilities in Grades 9-12. The self-contained classes include Learning Group, Language Based, Therapeutic Learning program, ACCESS, and Project Transition. Our Special Education methodology consists of the following:
    - Massachusetts Curriculum Frameworks adapted for instruction at the entry skill level. There is a focus on ILS, self-determination, vocational, community, and communication skills.
    - Small group/individual special education instruction outside the general education classroom with explicit instruction in all academic areas.
    - Periodic small group instruction to preview, review, clarify, and reinforce general education content through scaffolded, multi-sensory repetition and modeling, as well as structured assistance in organizing and managing materials and planning long-term assignments.
    - A therapeutic learning environment that utilizes an interdisciplinary approach toward learning, with therapeutic interventions and social skills training enmeshed within the curriculum and during day-to-day school activities. Access to in-the-moment intervention is available on an as-needed basis. Inclusion of a clearly defined classroom structure that incorporates individual self-management learning opportunities built on a positive behavior support structure

- English Learners: Each English Learner student is placed in our English Language Education

(ELE) program, designed to meet their English Language Proficiency (ELP) level, as determined by assessments in Reading, Writing, Listening, and Speaking in English.

- Our ELE model is a Sheltered English Immersion (SEI) structure that includes English as a Second Language instruction taught by a licensed ESL teacher and Sheltered Content Instruction taught by a dual-certified or SEI-endorsed content teacher.
- Medford High School has five ESL-level classes in addition to content classes in Life Science, Biology, World History, US History, and Integrated Mathematics for newcomer students. We also have literacy classes and a foundational math class for students who have had interruptions in their education.
- All English learner students participate in electives and exploratory classes with their peers and can participate in all extracurricular and sports activities.

Technology Integration

All Technology needs are integrated into classrooms ensuring the following:

- All students are 1:1 with a school-issued Chromebook
- All staff are issued a school MacBook Air
- Classrooms are equipped with a projector; some classrooms have promethean boards that are on mobile carts.
- Currently, Medford High School does not have interactive smartboards, sound system(s) in classrooms, or landline phones in individual classrooms.
- Due to the structure and age of the building, reliable access to the Internet is an ongoing issue across the campus.

Class Size Policies and Scheduling Practices

The collective bargaining agreement between Medford Public Schools and the Medford Teachers Association states that academic subjects have an average maximum amount of 25 students per teacher, while vocational teachers have an average maximum of 18 students.

Medford has long had two disparate schedules servicing the traditional high school and vocational schools. The schedules limit access to programming for vocational students in particular and restrict enrollment in the arts and foreign languages. We have completed an assessment of how to integrate the schedule and intend to adopt the new schedule in Fall 2025. The new schedule will maintain flexibility to allow co-op assignments for our Juniors and Seniors in particular vocational programs AND create access to the arts and foreign languages. We anticipate significant benefits for our students in traditional high school programming, including enhanced elective offerings.

SECTION THREE: Proposed Priority Statement of Interest School, Medford High School

A. Please complete the chart below indicating the number of each room type proposed, if known at this time. The District should modify the included grades in the 'Room Type' column to reflect any grade configuration(s) the District is interested in studying during Feasibility Study, as already presented to the MSBA in the 2023 Statement of Interest and as discussed during the District's Senior Study. In a case where the District is considering multiple grade configurations, the widest grade span should be included (i.e. if the District is interested in studying their current 1-4 configuration, a K-5 configuration, and a K-8 configuration, the 'Room Type' column should include all grades between Grade K and Grade 8).

ROOM TYPE	No. of Rooms (e.g. N/A, 1, 2, etc.)	Comments
CORE ACADEMIC SPACES		
Pre-Kindergarten (indicate full/ half day in the Comments column)	11	5 dedicated to full-day programs 6 dedicated to half-day programs
Kindergarten (indicate full/ half day in the Comments column)	N/A	
Grade 1	N/A	
Grade 2	N/A	
Grade 3	N/A	
Grade 4	N/A	
Grade 5	N/A	
Grade 6	N/A	
Grade 7	N/A	
Grade 8	N/A	
Math (Grades 9-12)	16	14 classrooms (instructional spaces) 2 storage spaces (curriculum, materials)
Science Instructional Space (Grades 9-12)	22	17 lab/ demonstration spaces 1 general science space 2 storage/staff prep space 2 storage spaces (curriculum, materials)
Social Studies (Grades 9-12)	16	14 classrooms (instructional spaces) 2 storage spaces (curriculum, materials)
English (Grades 9-12)	16	14 classrooms (instructional spaces) 2 storage spaces (curriculum, materials)
World Language (Grades 9-12)	12	10 classrooms (instructional spaces) 2 storage spaces (curriculum, materials)
Other (indicate program in the Comments column)	17	5 English Learner ELA, 1 English Learner Math, 1 English Learner Science, 1 English Learner Social Studies, 1 room for professional development/meetings, 8 IT closets (servers, switches & other IT Spaces)
SPECIAL EDUCATION	41	15 small group spaces (academic and related services included) 1 Learning Group 1 TLP 1 Access ** Project Transition listed below (Living Lab) 1 storage space for PT equipment 2 administrative offices 1 sensory room 19 classrooms
ART	7	3 classrooms (1 with kiln space, and 1 with adjoining dark room space- proper

ROOM TYPE	No. of Rooms (e.g. N/A, 1, 2, etc.)	Comments
		ventilation), 1 computer lab for graphic design, 1 gallery space, 2 large storage room(s)
MUSIC	15	3 Classrooms, 1 Studio with adjoining music library, 1 Music Tech Lab, 8 Instrument Storage Rooms 2 orchestra/choice practice spaces
Practice Rooms	16	
HEALTH & PHYSICAL EDUCATION		
Adaptive PE Spaces	1	
Gymnasium	18	2 gyms, 2 fields, 1 fitness center/weight room, 1 gymnastics room, 1 Athletic Director Office, 1 Assistant Athletic Director/Director of Physical Education and Health Office, 1 Administrative Assistant Office, 3 Health / Physical Education Classrooms, 2 Batting Cages, 1 Athletic Training Room, 1 - 8 Lane Swimming Pool, 1 Boys PE Locker Room, 1 Girls PE Locker Room
MEDIA CENTER	42	2 large workrooms with librarian's office, 3 small workrooms with 1 attached office, 3 storage closets/rooms, 1 office with a work area for an assistant, 1 office/workroom for technician, 3 classrooms, 1 small lab with an office, 2 large lab with 1 office, 4 offices with closets, 1 former darkroom now being used for storage, 1 small storage closet, 1 large storage room for equipment, 1 presentation room, 1 computer science classroom, 1 large lab with 25 workstations, 1 small interior classroom, 1 Director's office, 1 small office with closet, 2 small, windowless offices, 2 presentation spaces,

ROOM TYPE	No. of Rooms (e.g. N/A, 1, 2, etc.)	Comments
		1 Makerspace 6 small group spaces 1 main library room for over 100 chairs, and 12 Mac workstations - one wall is all window facing the inner courtyard with high top tables and bean bag seating for students.
DINING & FOOD SERVICE	6	1 comprehensive dining hall and 1 for a more quiet space for students, 2 administrative spaces, 1 dry storage room, 1 chemicals closet
MEDICAL SUITE	8	1 main office with 2 treatment rooms, 1 isolation room, 1 record room, 1 room for private caregiver meetings, 1 bathroom, and 1 waiting area
Nurses' Office; Health Center	8	Expanded space to house an on-site health center; if space can be located in the current building, the team will begin pursuing grant funding to begin the program in 2026. The new building should be configured to allow for programming to exist.
ADMINISTRATION & GUIDANCE	47	3 House Office Suites include the following (3x10): • 1 AP office • 5 Counseling offices • 1 Storage Room • 1 Conference Room • 1 Administrative Assistant Space/Waiting Room • 1 Special Education/Director Office 1 Main Office that includes the following (1x11): • 1 Principal Office • 1 Associate Principal Office • 1 Security/Camera Office • 1 SRO Office • 1 Kitchenette • 1 Vault for record storage • 1 main waiting room with space for 2 administrative assistants • 1 Conference room • 1 Counseling office • 1 Office for Attendance Office.Engagement Specialist • 1 Director of Humanities Office 1 CTE Main Office that includes the following (1x6):

ROOM TYPE	No. of Rooms (e.g. N/A, 1, 2, etc.)	Comments
		• 1 CTE Director Office • 1 waiting room with space for 2 administrative assistants • 1 Grants office • 1 storage closet • 1 Special Education Office • 1 Counseling Office
OUTDOOR LEARNING	4	
AUDITORIUM	25	1 full size auditorium, 5 storage/tech rooms, 3 rehearsal spaces, 1 ticketing area/lobby, 1 mini stage, 1 coat room, 6 dressing rooms, 1 green room, 1 sound booth, 1 lighting booth, 1 recording studio, 1 costume storage/wardrobe room 1 laundry facility for care and maintenance of costumes, 1 prop shop/scenery shop
NATATORIUM	1	
DESE APPROVED CHPT 74 SPACES	35	Auto Technology + Related Classroom, Biotechnology + Related Classroom, Business Marketing, Carpentry + Related Classroom, Construction and Craft Laborers + Related Classroom, Cosmetology + Related Classroom, Culinary Arts + Related Classroom, Early Childhood Education + Related Classroom, Electrical + Related Classroom, Engineering and Robotics + Related Classroom, Graphic Design + Related Classroom, Health Assisting + Related Classroom, Media Technology + Related Classroom, Metal Fabrication + Related Classroom, Programming and Web Design, Dental Assisting + Related Classroom, Veterinary Science + Related Classroom, Criminal Justice/Protective Services, Plumbing/HVAC + Related Classroom,

ROOM TYPE	No. of Rooms (e.g. N/A, 1, 2, etc.)	Comments
		Information Systems - OT/Networking - Cyber Security
NON-CHPT 74 ENRICHMENT PROGRAM SPACES	0	
NON-SCHOOL DISTRICT SPACES	0	N/A
OTHER (indicate type of program in the Comments column)	46	1 classroom for Project Transition program as well as 1 Living Lab (mock apartment for Project Transition students ages 18-22), 12 classrooms for Kids' Corner: A district-provided daycare facility for school and municipal employees. (There are also spots for community children to attend), 1 classroom for Make Way for Kids: A preschool program organized and run by the Medford High School Vocational Program servicing community children ages 2.8 to 5 years, 20 offices for the Central Administration Office wing consists of Finance Department, Human Resource Department, Buildings & Grounds Department, Communications Manager, Superintendent, 2 Assistant Superintendents, Director of Student Services, and our district Data Analyst, 2 conference rooms for central administration, 1 School Committee office, 1 School Committee conference room, 3 classrooms for Medford Family Network (Organization that provides wrap-around services to community families and their children from birth to age 8), 4 offices for Medford Family Network

B. Describe how 1) core spaces, 2) specialty spaces, and 3) non-traditional spaces described above are proposed to be used, if known at this time. Additionally, if there are proposed changes, indicate how they will impact space needs and what training to support teaching staff will/ may be provided.

In Medford's 2022 Statement of Interest, our district indicated that our two priorities are (1) replacement, renovation, or modernization of school facilities to increase energy conservation and decrease energy costs and (2) replacement or addition to obsolete building to provide a full range of programs consistent with state and approved local requirements. Our infrastructure needs to be modernized, made more efficient, and expanded to include a full range of programming within the scope of approved state and local requirements.

Medford is open to exploring several sites for the location of the new Medford High School, including the current site. We know that Medford is generally space-constrained and likely has only a few viable options for consideration, including Medford Square and Columbus Park.

If Medford High School remains in its current location, there is a particular concern about managing stormwater runoff from the adjacent Fells Reservation and designing a sustainable site that responsibly mitigates climate events that we have experienced at the current site. The design strategies employed could offer unique learning opportunities for students to engage with right outside their classrooms.

The City has prioritized improving open spaces through an Open Space Master Plan (OSMP) that strengthens Medford's climate change resilience through park and open space design and improves the ecological quality of the property. The Medford High School project should be leveraged to accomplish as many OSMP goals as possible. These include

1. "Green" parking lot to increase evapotranspiration and promote cooling
2. Porous pavement or ADA Accessible permeable pavers when replacing pavement
3. Vegetated bioswale or retention areas for traffic calming and stormwater management
4. Embankment stabilization with native plantings
5. Establishment and cultivation of connections to and along the City's natural resources
6. Expanded and diversified recreational programming for City residents

As discussions surrounding future programming and space utilization at Medford High School progress, several key areas have already been identified for further consideration. These include core spaces, specialty spaces, and non-traditional spaces, all of which have the potential to enhance and diversify the educational experience for students and address current needs within the school. These include but are not limited to:

Core Spaces

The ultimate goal of the core spaces is to create a dynamic and inclusive learning environment that meets the diverse needs of all students, supports academic and personal growth, and can be used flexibly in the years to come. We would like to explore larger classrooms for collaborative learning and create flexible spaces that could accommodate different teaching styles and group sizes in addition to small shared breakout spaces adjacent to classrooms for small-group instruction. We would like to bring additional common spaces to the facility to serve as multi-purpose spaces for both academic and social purposes and provide students with opportunities to engage and communicate with one another.

- General Education Classrooms: Medford High's general education spaces will promote diversity and inclusivity by focusing on grade-level standards and culturally affirming practices. The school embraces Universal Design for Learning (UDL) to provide equitable opportunities for all students while prioritizing technology integration and collaboration among faculty. Strategic grouping of core academic departments and designated meeting spaces within each department will promote collaboration among staff. Dedicated maker spaces encourage hands-on and creative learning, while unconventional instructional spaces foster innovative and engaging experiences for all students.
- Alternative High School Program: To address the various needs of students who are not progressing academically and socially, we seek to include alternative programming within Medford High School. The program will launch in the fall of 2024 in a retrofitted space. As we look forward, we believe this model would best be accomplished in a designated section/wing of the building with classroom spaces adjacent to one another. A community space for building relationships, housing meetings, and norm-setting is also needed. Having a dedicated bathroom for the program would be ideal.
- Vocational Programming: One key area of focus is the CTE offerings. The school aims to upgrade and enhance its 15 Chapter 74 programs to meet the industry's ever-changing standards.

This would involve creating additional space—including outdoor areas—to maximize enrollment and provide students with the necessary resources to excel in these programs. We are also looking into the possibility of expanding shop opportunities to create five new CTE programs (Animal/Veterinary Science, Criminal Justice/Protective Services, Dental Assisting, Plumbing/HVAC, and IT/Networking)

- Special Education Classrooms: Special education classrooms ensure compliance with legal requirements, such as the Individuals with Disabilities Education Act (IDEA) in the United States, which mandates that students with disabilities receive a free appropriate public education (FAPE) tailored to their individual needs. Special education classrooms are designed to provide a supportive and inclusive educational environment that empowers students with disabilities to achieve academic success, develop essential skills, and reach their full potential. They play a crucial role in ensuring equitable access to education and promoting the overall well-being of students with diverse needs.

  Special education classrooms are specifically designed to address the unique learning needs of students with disabilities or exceptionalities. Here are some key aspects they typically focus on:

  1. **Individualized Education Plans (IEPs):** Each student in special education has an IEP tailored to their specific needs, goals, and learning styles. This document guides the curriculum and instructional strategies.
  2. **Differentiated Instruction:** Teachers in special education classrooms use various teaching methods and materials to accommodate diverse learning styles and abilities. This could include visual aids, manipulatives, or adaptive technology.
  3. **Support Services:** These classrooms often provide additional support services such as speech therapy, occupational therapy, physical therapy, counseling, or behavioral interventions, depending on the students' needs.
  4. **Modifications and Accommodations:** Teachers make modifications (changes in what is being taught or expected) and accommodations (changes in how students access learning) to ensure that all students can participate meaningfully in the curriculum.
  5. **Emotional and Behavioral Support:** Many students in special education may require assistance with emotional regulation or behavior management. Special education classrooms provide strategies and support to address these needs.
  6. **Social Skills Development:** Teaching social skills and promoting social interactions among students is an important aspect of special education classrooms. This can include structured activities, peer modeling, and explicit teaching of social norms.
  7. **Transition Planning:** For older students, special education classrooms often focus on preparing them for life after school, including vocational training, independent living skills, and transition to post-secondary education or employment.
  8. **Parent and Family Involvement:** Special education classrooms often work closely with parents and families to ensure continuity of support and to incorporate home-based strategies into the educational plan.

  Overall, special education classrooms aim to create a supportive and inclusive environment where students with disabilities can learn, grow, and achieve their full potential academically, socially, and emotionally.

- English Learner Classrooms: The EL program requires modern classroom space and dedicated space for families to register and for student testing.

- Co-location of Curtis Tufts at Medford High School: Co-locating Curtis Tufts' therapeutic day program into the Medford High School setting can offer several advantages and benefits for students. We want to maximize accessibility to mental health services, strengthen stakeholder collaboration, and improve access to our vocational and extracurricular programs for the 20+ students who rely on this program. It has not previously been possible to co-locate this program because it relies on separate and dedicated space that is differently configured than Medford High School. We believe it's ideal to explore this at this time to both improve the student experience and reduce our reliance on an aging building that lacks modern and efficient infrastructure. The team that has explored this possibility and recommended to the School Committee that we student this as part of feasibility has outlined the following benefits:
    1. **Convenience and Accessibility**: By placing the therapeutic program within Medford High school, students can easily access mental health services without needing to leave the school premises. This reduces barriers to seeking help and increases the likelihood that students will utilize the services.
    2. **Integration with Academic Environment**: Co-location allows for seamless integration of therapeutic interventions with the academic curriculum and school activities. Therapists and counselors can collaborate with teachers and administrators to support students' overall development and well-being.
    3. **Immediate Support for Crisis Situations**: In cases of immediate need or crisis situations, having a therapeutic program on-site ensures that students can receive prompt intervention and support. This can prevent the escalation of issues and promote safety within the school community.
    4. **Support for At-Risk Students**: Therapeutic programs often cater to students at risk of academic failure, dropout, or other negative outcomes. By providing targeted support, these programs can help these students stay engaged in school and achieve their full potential.
    5. **Fostering a Supportive Atmosphere**: Co-location creates a supportive and inclusive school culture where mental health is prioritized. It sends a message that seeking help is normal and encouraged, thereby reducing the stigma associated with mental health challenges.
    6. **Collaboration and Coordination**: Co-locating allows for better coordination and collaboration between therapists, counselors, teachers, and other school staff. They can work together to identify students who may benefit from additional support and develop personalized plans to meet their needs.
    7. **Tailored Interventions**: Therapists in a co-located program can provide tailored interventions that address the specific needs of high school students, such as academic stress, social pressures, identity development, and family dynamics. This targeted approach can lead to more effective outcomes.
    8. **Educational and Emotional Growth**: The integration of therapeutic services within the school environment supports not only students' emotional growth but also their educational success. Students are better equipped to manage challenges and fully engage in their academic pursuits.
    9. **Parental Involvement and Support**: Co-location facilitates easier communication and parental or guardian involvement in their students' therapeutic journey. Parents or guardians can be more actively engaged in understanding and supporting their child's mental health needs.

10. **Cost and Resource Efficiency**: Co-location can optimize the use of resources and funding by leveraging existing school infrastructure and personnel. It may reduce costs associated with transportation or separate facilities while maximizing the impact of therapeutic services.
11. **Modeling Healthy Behaviors**: By integrating mental health services into the school setting, co-location models healthy behaviors and coping strategies for students, promoting lifelong wellness practices.
12. **Preparing for College and Career**: By promoting emotional and mental well-being, therapeutic programs prepare students to navigate the challenges they may face in higher education, the workforce, and adult life. They are better equipped to handle stress, setbacks, and transitions effectively.
13. **Building Life Skills**: Beyond academic knowledge, therapeutic programs equip students with essential life skills crucial for personal and professional success. These skills include resilience, communication, decision-making, and problem-solving abilities.

- Kids Corner: Medford has hosted the Kids Corner program for many years. School and city staff rely on the high-quality care provided at very competitive rates. Additional classroom space will allow us to increase tuition and open additional slots to community members. The lack of childcare in Medford is the subject of much discussion.
- Early Education and Childcare Center: The creation of space either freestanding structures on the same site or a small wing of the building) will allow us to centralize our early childhood programming into an Early Childhood Center and allow the possibility to expand our pre-K options We know that 40% of our kindergartners (~120 annually) come to Kindergarten without any prior formalized education We believe that this population could be served with expanded pre-K programming through our Medford Early Education Program programming that serves more full day enrollments. We cannot expand programming today because our elementary schools that currently house the programs are at or over capacity. Centralizing our Early Childhood portfolio will increase access to specialized services. We would also house our Medford Family Network program and our Parent Information Center in this center. Moving this programming to the campus will also alleviate space issues at our elementary schools to handle growing enrollment and a dire need for expanded after-school programming.

Specialized Spaces

- Performing arts. The performing arts are vital to Medford High School's educational framework. The new performing arts department space, equipped with a state-of-the-art auditorium that can host our entire student population and practice rooms, would significantly enhance the school's ability to cultivate these essential skills. Key features would modernize our existing capabilities, including:
    - Modern Auditorium: A spacious auditorium with tiered and accessible seating to ensure optimal viewing for all audience members.
    - Advanced Acoustics, Sound, and Lighting: Equipped with advanced acoustic engineering to ensure high-quality sound distribution, a comprehensive lighting system with programmable stage lights, spotlights, ambient lighting, and state-of-the-art audio equipment, including microphones, speakers, and soundboards, to ensure clear and powerful sound reproduction.
    - Flexible Stage Design and Backstage Facilities: A versatile stage that can accommodate

various types of performances, from drama and musicals to concerts and dance recitals, technology for digital backdrops, projections, and multimedia presentations, and ample backstage space with dressing rooms, makeup areas, green rooms, and storage for props and costumes.

- Rehearsal Spaces: Dedicated practice rooms and rehearsal studios equipped with mirrors, ballet bars, and sound systems.
- Lobby and Ticketing Area: This welcoming lobby features a ticketing area, concession stands, a coat room, and restrooms.
- Mini stage: A smaller stage to welcome guest speakers and smaller student performances.

- Athletic spaces
    - Indoor Pool
        - The swimming pool is a cornerstone element of the Medford Physical Education program. Following the accidental drowning of a graduate shortly following graduation in 2019, Medford Public Schools has implemented mandatory water safety and swimming courses for all students.
    - Indoor Gymnasium
        - Restore/replace the indoor track, which is no longer suitable for competition use.
        - Gymnasium climate control systems are outdated and require replacement whether the gymnasium remains in place or is replaced entirely.
    - Associated Spaces: Boys' and girls' locker rooms/showers, a gymnastics room with gymnastics floor, pommel horse, vault, beam, and other associated gymnastics equipment, 3 athletics offices, expanded athletic trainer rooms with examination tables, therapeutic whirlpools and storage facilities for equipment, two batting cages, and fitness center weight room combination space.
    - Adaptive PE space: This space will include wheelchair accessibility, sensory-friendly environments, and a variety of adaptive equipment, such as modified sports gear and adjustable gym apparatus. It will also have modern safety features and interactive technology to enable adaptive gaming options. Through collaborative areas and inclusive design principles, the space will promote social interaction and community.
    - Outdoor Athletic Fields: The current Edgerly turf field is at the end of its life and will require replacement with ADA-compliant accessibility and parking. In addition, exploring the creation of an outdoor track would increase access to track programming for students who must travel across the city to the city's athletic complex for practices. The current high school campus has ample opportunity to explore the creation of additional regulation fields for our athletics teams and/or overhauled practice fields. If Medford High School is relocated elsewhere in the city, additional planning and feasibility studies would be required to ensure no loss of athletics spaces.

- Media Tech: We envision a library media space that has access to outdoor space and includes a space large enough for at least 2 classes or faculty events/meetings that could be closed off by a moveable wall depending on the need for size or to accommodate more than one group, with presentation ability on both sides, several (2 or 3) fully automated labs for teaching library and technology classes, individual and small group spaces where students can work individually and not be distracted, containing a table and up to four chairs, preferably with a glass/clear wall for sightlines and modern technology, spaces for small groups to collaborate, study carrels,

traditional library space for books and reading, a maker space for science and technology activities. The space should also include adequate space for staff who manage the facility, including a large workroom with storage areas, meeting areas, and two circulation desks/workstations that are ADA compliant and are movable depending on need or for events.

Non-Traditional Spaces

- Connection to the Environment: The intention is for a future high school building to connect more meaningfully with its site and natural surroundings. This is of particular interest if the building remains in its current location given its unique position within the Middlesex Fells Reservation but would also apply if the High School were to move to another location. These connections can manifest as formal outdoor learning opportunities with direct access to and integration with the landscape, outdoor classroom spaces, and even simply a priority to provide views to nature from the interior and opportunities to break down the massing of the building with landscaped pockets to provide a respite from the built environment.
- Student-run cafe to bring access to our Chapter 74 Culinary Program to students who cannot normally take advantage of our Bistro 489 restaurant.

C. Using the space below, provide information about the Medford High School's proposed teaching methodology, if known at this time (e.g. technology integration, self-contained classroom, team teaching, project-based, departmental, or cluster). Include any changes to class size policies, if applicable.

Medford High School's teaching philosophy is centered on the belief that every student has the potential to learn and grow when given a supportive and engaging educational environment. Medford High School educators create a classroom atmosphere that is inclusive, respectful, and engaging, where students feel encouraged to ask questions, explore ideas, and take academic risks.

At Medford High School, we believe in a student-centered approach to teaching. Students are encouraged to explore through project-based learning, where the student leads their learning with support from the educator. The educator's role is to provide the tools, resources, space, and scaffolds to support students in building their knowledge and skills while promoting their autonomy, critical thinking, and problem-solving abilities. Additionally, Medford High School strives to make learning relevant and meaningful by connecting the curriculum to real-world examples and applications that resonate with students' interests, lives, and experiences.

Overall, the proposed teaching methodology for Medford High will embrace a more inclusive, collaborative, technologically advanced approach to secondary education. The district's work to align schedules is an important first step to creating an environment ready to take on updates on how we teach students. We've begun re-examining how time is maximized in the instructional block, and this work will continue after the schedule changes are implemented. We want to create and deliver learning experiences that equip students with knowledge, skills, and strategies that can be transferred to real-world applications beyond Medford High School. As we've done in our vocational programs, we want to explore an increase in project-based learning and look forward to having flexible space that allows us to consider how our programming in the Center for Citizenship and Social Responsibility (CSSR), which relies on project-based learning, can be integrated into the instructional day.

The district has discussed implementing Universal Design for Learning (UDL), a framework designed to maximize teaching and learning for all staff and students. At its core, UDL addresses the systemic barriers

that result in inequitable learning opportunities and outcomes for students. The UDL approach considers the needs of all learners, including students with disabilities. A less compartmentalized and more flexible building will boost our ability to implement UDL.

Faculty collaboration will be a critical component of achieving this vision of a 21st-century learning environment. We would like to explore how different building layouts will promote integrated learning with more collaborative meeting spaces, co-teaching, and planning spaces. We want all our departments to have the dedicated space needed to collaborate on shared lessons, common assessments, and interdisciplinary units of study.

Lastly, collaboration among educators is fundamental to our vision of a 21st-century learning environment. To facilitate this, we want to explore modern space configurations that make collaboration easier. We know that co-teaching and shared responsibility require dedicated time and space for collaboration on shared lessons and assessments. This will also allow peer coaching to become an integral part of our professional culture.

SECTION FOUR: Community Engagement

A. Describe the community outreach that has occurred to this point, and any future plans and goals related to engaging the community on the Medford High School project. If considering grade reconfiguration, consolidation of facilities, and/or a change to the current teaching methodology, describe the outreach and discussions that have occurred to this point and any future plans to engage the community on the proposed changes. Additionally, indicate whether the District has determined whether or not an override or debt exclusion might be required for full project funding.

Community Outreach

Community interest in this project is high. We received over 100 applications for 9 community member spots on the MHSBC. We plan to capitalize on this interest early and often, including as many voices as possible in the design process so that the new space can be a hub of activity for the entire community in the coming years. The establishment of the Communications and Community Engagement Subcommittee by the MHSBC is pivotal for ensuring transparent and inclusive communication throughout the project. Their plan includes proactive communication channels to keep the community informed, surveys in the summer of 2024 to gauge community questions and concerns and robust public input opportunities. We will separately reach out to the City's array of boards and commissions during the summer of 2024 to understand the perspective of each board/commission and how they'd like to be involved as the project progresses. Engagement strategies will vary, including town hall meetings and online forums. Transparency and accountability are emphasized, with a commitment to sharing updates openly. The committee remains adaptable to evolving community needs, aiming to foster trust and collaboration throughout the project.

Grade Reconfiguration and Facility Consolidation

The district is due to revisit its strategic plan in the coming years, and the School Committee's Subcommittee on Strategic and Capital Planning will work in concert with the Superintendent's office to ensure robust public input into that plan. We believe that our Educational Profile submission and the overarching vision of the SBC for the project provide ample opportunity to craft a visionary plan for teaching and learning at our high school.

Medford is interested in co-locating our Curtis-Tufts program, which currently has an enrollment of 20

from grades 9-12. In addition, the School Committee has held subcommittee meetings and invited community members, current and former students, and teaching staff to provide input to evaluate the potential to consolidate the Curtis-Tufts School within the campus of the future high school. There is overwhelming community support to make this transition with a re-envisioned space at the high school. The School Committee voted on June 3, 2024, to unanimously support exploring the co-location of the Curtis-Tufts onto the Medford High School campus.

The Curtis-Tufts High School is the in-district therapeutic day public high school program for students grades 9-12 with intensive specialized needs. The school supports and helps students acquire the communication, academic readiness, community, life skills, and social skills necessary to have a purposeful and independent life, and strives to help each student reach their fullest potential. The program designs and delivers specialized services that promote academic, social, and career independence in the most inclusive settings possible to meet the needs of students who struggle with academic achievement as well as social/emotional needs who require a smaller therapeutic setting.

Co-location of the Curtis-Tufts program at Medford High School would provide students with the social and emotional support within the program but also provide access to high school and vocational school academic classes, electives, CTE programming, extracurricular activities, and athletics. Overall, the co-location of our public therapeutic day program will provide an opportunity to improve accessibility, reduce stigma, promote integration, share resources, and garner the school community support, all of which are essential for providing effective and sustainable mental health services with academic rigor.

We are also interested in returning to a centralized model for our Medford Early Education Program to allow for program expansion, improve our ability to deliver services, and alleviate space concerns at our elementary schools, where programming was moved when space constraints were presented at the high school complex.

Teaching Methodology

Our work to integrate our two high school schedules is a critical first step to enabling a discussion about teaching methodology with our staff and then with our community. Scheduling discussions will happen during the FY25 school year, with an implementation planned for September 2025.

Override/Debt Exclusions Required

Medford is prepared to use free cash to fund its feasibility study requirements with the MSBA. On June 25, 2024, the Medford City Council voted 6 in favor and 1 absent to appropriate $3,000,000 in free cash to support the feasibility study. That funding will be allocated to a special appropriation account, and the project can proceed as soon as possible.

We know that this project will require a debt exclusion to fully fund it, and we understand that the communication plan that the SBC creates needs to provide ample opportunity for the community to provide input throughout the process.

SECTION FIVE: Attachments

A. Please attach to this completed Questionnaire any Executive Reports or Conclusions of reports or studies related to: Coordinated Program Review, Master Plan/ Facilities Plan (if not already on file), and NESDEC/NEASC reports (if not already on file). Below, list all documents attached (as applicable).

Documents attached:

- Tiered Focused Monitoring Report
- Comprehensive Review District Report (AIR) - DESE
- Targeted Focused Monitoring Report - EL
- NEASC - 10 years old/5 year follow up

Should you have any questions as you complete this document, please contact your Project CoordiN/Ator, Allison Sullivan, at:
Massachusetts School Building Authority
617-720-4466
Allison.Sullivan@massschoolbuildings.org

CONTRACT FOR DESIGNER SERVICES
(BASE CONTRACT FOR DESIGN BID BUILD OR CM at RISK PROJECT)

This Contract is made as of this _____ day of _____ in the year _____between
(day) (month) (year)
the _____, _____
(Owner) (street)
_____ , Massachusetts , _____
(City) (State) (Zip Code)
hereinafter called "the Owner" and _____
(Designer)
_____

_____ , _____ , _____ , _____
(street) (city) (State) (Zip Code)
hereinafter called the "Designer" for the Designer to provide the designer services required to complete the Basic and Extra Services described herein at _____
(name/description of Project)
_____
_____
_____

The Designer is authorized to perform the services required by this Contract through the Feasibility Study Phase and, pending receipt of a written Approval to proceed from the Owner, through the Schematic Design Phase. At the Owner's option, the Designer may be authorized to perform services for subsequent design phases and/or the Construction Phases and Completion Phase, at which time a mutually agreed upon amendment to this Contract will be executed between the Owner and the Designer. If the Owner elects to construct the Project using the CM at Risk ("CM-R") construction delivery method pursuant to M.G.L. c. 149A, this Contract shall be amended using the Authority's Standard Amendment for CM-R, as it may be amended from time to time by the Authority. If the Owner elects to construct the Project using the Design-Bid-Build ("DBB") construction delivery method pursuant to M.G.L. c. 149, this Contract shall be amended using the Authority's Standard Amendment for DBB, as it may be amended from time to time by the Authority.

For the performance of the services required under this Contract for the Feasibility Study Phase and the Schematic Design Phase, and excluding those services specified under Articles 7.5, 7.6, 7.7, 7.8, 7.9, 7.10, and 8.3, the Designer shall be compensated by the Owner for Basic Services in accordance with the Payment Schedule included as Attachment A.

Designer's Project Architect/Engineer: _____

The Subconsultants to provide services, either as Basic or Extra Services, to the Designer under this contract may include the following, as identified on the RFS:

	Name of Firm	**Name of Principal**	**MBE/ WBE**
Civil Engineering			
Landscape Architecture			
Structural Engineering			
Fire Protection Engineering			
Plumbing Engineering			
HVAC Engineering			
Electrical/Lighting/			
Data/Communications			

Environmental Permitting			
Geotechnical Engineering			
Hazardous Materials			
Cost Estimating			
Kitchen/Food Service Consultant			
Laboratory Consultant			
Acoustical Consultant			
Specifications Consultant			
Library/Media/Audio Visual Consultant			
Technology Consultant			
Theatrical Consultant			
Sustainable/Green Design/Renewable Energy Consultant			
Code Consultant			
Accessibility Consultant			
Traffic Consultant			
Furniture, Fixtures and Equipment Consultant			
Site Surveying			
Security Consultant			

IN WITNESS WHEREOF, the Owner and the Designer hereby agree to the terms of the Contract and have caused this Contract to be executed by their respective authorized officers or other authorized representatives.

OWNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date_____

DESIGNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date _____

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ARTICLE 1: DEFINITIONS

All terms that this Contract defines may be used with or without initial capital letters. Other terms, abbreviations and references are defined as they appear herein. Words and abbreviations that are not defined in the Contract Documents but which have recognized technical or trade meanings are used in accordance with those meanings.

APPLICABLE LAWS – All applicable laws, statutes, ordinances, by-laws, codes, rules and regulations, of the Commonwealth of Massachusetts, its political subdivisions, and the Federal Government applicable to the Project.

APPROVAL -- A written communication from the Owner approving the work of the current Phase, as identified on Attachment A, or authorizing the Designer to proceed to the next Phase or approving the scope and compensation for either Extra Services or Reimbursable Expenses.

AUTHORITY – Massachusetts School Building Authority or its authorized representative, created by St. 2004, c. 208.

BASIC SERVICES – The scope of services to be provided by the Designer under this Contract, unless the Contract is otherwise terminated pursuant to Article 12, as described in Article 7 of this Contract, and as it may be amended pursuant to Article 18.4.

CERTIFICATE OF FINAL COMPLETION – The form prescribed by the Authority which contains the certification of the Designer, OPM and the Owner that the Project has reached Final Completion.

CERTIFICATE OF SUBSTANTIAL COMPLETION – The certificate prepared by the Designer and approved by the Owner to the effect that the Work has reached Substantial Completion.

CHANGE ORDER – A written instrument prepared by the Designer and signed by the Owner, Owner's Project Manager, Contractor or CM at Risk, and Designer, stating their agreement on a change in the Construction Contract Documents, including, but not limited to, a change in the Contract Sum and/or Contract Time, and/or any other specification in the Construction Contract Documents.

COMMISSIONING CONSULTANT – A person or firm engaged by the Authority to provide building commissioning services, including advisory services during design and construction.

CONSTRUCTION CONTRACT DOCUMENTS – The Construction Contract Documents consist of the Owner-Contractor or Owner-CM at Risk Agreement, Advertisement, Instructions to Bidders, Bidding Documents, Contract Forms, Conditions of the Contract, Drawings, Plans, Technical Specifications, all addenda issued prior to execution of the Construction Contract, and other documents approved after execution of the Owner-Contractor or Owner-CM at Risk Agreement relating thereto.

CONSTRUCTION MANAGEMENT AT RISK or CONSTRUCTION MANAGEMENT AT RISK SERVICES or CONSTRUCTION MANAGEMENT AT RISK DELIVERY METHOD or CM at RISK DELIVERY METHOD - a construction method described in

M.G.L. c. 149A wherein a Construction Management at Risk firm provides a range of preconstruction services and construction management services which may include cost estimation and consultation regarding the design of the building project, the preparation and coordination of bid packages, scheduling, cost control, and value engineering, acting as the general contractor during the construction, detailing the Trade Contractor scope of work, holding the trade contracts and other subcontracts, prequalifying and evaluating Trade Contractors and subcontractors, and providing management and construction services, all at a Guaranteed Maximum Price, which shall represent the maximum amount to be paid by the public agency for the building project, including the cost of the work, the general conditions and the fee payable to the Construction Management at Risk Firm.

CONSTRUCTION MANAGER AT RISK, CONSTRUCTION MANAGEMENT at RISK FIRM or CM at RISK – the individual, corporation, partnership, sole proprietorship, joint stock company, joint venture or other entity with whom the Owner has contracted pursuant to M.G.L. c. 149A, §§ 6 & 7, to provide Construction Management at Risk Services.

CONTRACT – This Contract, inclusive of all Attachments, between the Owner and the Designer; all written amendments to this Contract; and all Approvals issued pursuant to this Contract.

CONTRACTOR OR GENERAL CONTRACTOR – The person or firm with whom the Owner has contracted pursuant to M.G.L. c. 149, §§ 44A-44M to perform the construction for this Project.

CONTRACTOR APPLICATION AND CERTIFICATE FOR PAYMENT – The form prescribed by the Owner which contains the Contractor's or CM at Risk's application or requisition for periodic or final payment for Work performed in accordance with the Construction Contract Documents and the Designer's certificate for payment as approved by the OPM and the Owner.

DESIGNER – The individual, corporation, partnership, sole proprietorship, joint stock company, joint venture or other entity identified as such on page one of this Contract performing architecture, landscape architecture, and/or engineering services under this Contract and which meets the qualifications set forth in M.G.L. c. 7C § 44.

DESIGNER SERVICES – The services to be performed by the Designer and its Subconsultants under this Contract including developing and providing all data, designs, drawings, specifications and estimates required for the Project.

DISTRICT – see "OWNER."

EXTRA SERVICES – Services requested by the Owner to be performed by the Designer but which are additional (or "extra") to the services performed as Basic Services.

FEASIBILITY STUDY AGREEMENT – The agreement between the Owner and the Authority that sets forth the terms and conditions pursuant to which the Authority will collaborate with the

Owner in conducting a feasibility study, which agreement shall include the budget, scope and schedule for the feasibility study.

FEE FOR BASIC SERVICES – The fee to be paid to the Designer for satisfactorily performing the Basic Services required under this Contract, exclusive of the compensation to which the Designer may be entitled pursuant to Articles 8 (Extra Services) and 9 (Reimbursable Expenses).

FINAL COMPLETION – The Work has been completed in accordance with the Construction Contract Documents and the educational specifications, schematic plans and drawings and the Project Funding Agreement approved by the Authority.

FINAL DESIGN PROGRAM – A description of the programmatic, functional, spatial, and environmental requirements of the Project in written and graphic form indicating the scope of work and design requirements of the Project.

GENERAL LAWS – The Massachusetts General Laws as amended, including any rules, regulations and administrative procedures implementing said laws.

GUARANTEED MAXIMUM PRICE or GMP - The agreed total dollar amount for the Construction Management at Risk services, including the cost of the Work, the general conditions and the fees charged by the Construction Management at Risk firm.

GUIDELINES AND STANDARDS – Documents published by the Authority including regulations and procedures that supplement the tasks of Designers contracting with Owners for projects receiving any funding from the Authority, as they may be amended from time to time by the Authority.

MATERIALS – The designs, drawings, project manual specifications, and other materials prepared by the Designer as defined in Article 16.1.

MBE/WBE – A minority-owned business (MBE) or a women-owned business (WBE) certified by the Supplier Diversity Office (SDO).

NOTICE TO PROCEED – The written communication issued by the Owner to the Contractor or CM at Risk authorizing him to proceed with the construction contract and establishing the date for commencement of the contract time.

OWNER – The entity identified as such on page one of this Contract, or its authorized representative, that is the owner of the property that is the site of the Project, or has or will have exclusive control over the site for at least the duration of the useful life of the school facility that is the subject of the Project, and is responsible for administering this Contract.

OWNER-CONTRACTOR AGREEMENT or OWNER – GENERAL CONTRACTOR AGREEMENT – The contract between the Owner and one or more General Contractors and/or goods or services providers for construction of a whole or part of the Project, including approved change orders.

OWNER-CM at RISK AGREEMENT – The contract between the Owner and the CM at Risk, including, but not limited to, the GMP Amendment, for the provision of Construction Management at Risk Services for the Project**.**

OWNER'S PROJECT MANAGER or OPM – The individual, corporation, partnership, sole proprietorship, joint stock company, joint venture or other entity with whom the Owner has contracted to perform the Project Management Services for this Project, and who meets the qualifications of M.G.L. c. 149, § 44A ½ and has been approved by the Authority.

PHASE – A distinct portion of the work of this Contract and its associated duration, as identified on Attachment A. Prior Approval to proceed for each Phase is required from the Owner.

PRINCIPALS – The owner(s) and/or officer(s) of the Designer or Subconsultant who are in responsible charge of the Project.

PROJECT – All work that pertains to the study, planning, programming, design, construction, reconstruction, installation, demolition, maintenance and repair, if any, as described in the Project Scope and Budget Agreement and Project Funding Agreement.

PROJECT ARCHITECT AND/OR PROJECT ENGINEER – The individual designated by the Designer as its Project Architect or Project Engineer. Such Project Architect or Project Engineer shall be a registered architect, engineer or landscape architect as required by the Request For Designer Services, shall be the person who shall oversee the performance of all services provided on the Project and shall be certified in the Massachusetts Certified Public Purchasing Official Program as administered by the Inspector General of the Commonwealth of Massachusetts.

PROJECT CONSTRUCTION BUDGET – That portion of the Total Project Budget that enumerates the cost of constructing the Project inclusive of all designed construction, demolition, and renovation work, all supportive and preparatory construction work required for the Project, the General Contractor or the CM at Risk and all subcontractors, suppliers, materials, equipment, general conditions, insurance, overhead and profit and all other expenditures that are ordinarily considered as construction cost allocations. The Project Construction Budget includes the design contingency, bidding contingency, and price escalation contingency, as appropriate to the phase of the Project.

PROJECT FUNDING AGREEMENT – the Project Funding Agreement described in the 963 CMR 2.02 and executed by the Authority and the Owner.

PROJECT SCHEDULE – A complete list of all activities, time and sequence required to complete the Project, as defined in the Project Scope and Budget Agreement or Project Funding Agreement.

PROJECT SCOPE AND BUDGET AGREEMENT – the Agreement described in 963 CMR 2.10(10) and executed by the Authority and the Owner.

RECORD DRAWINGS – The drawings prepared by the Designer and its Subconsultants pursuant to Article 7.10.5 of this Contract which incorporate the design changes made during the construction period and which incorporate information on the marked-up prints, as-built drawings and other data furnished by the General Contractor or CM at Risk and any subcontractors.

REIMBURSABLE EXPENSES – Costs and expenses incurred by the Designer that are reimbursable pursuant to the provisions of Article 9 of this Contract.

REQUEST FOR DESIGNER SERVICES or RFS – The written document appended hereto as Attachment B specifying various requirements including the project goals and general scope, project site, scope of services, submission requirements, schedule, and construction budget.

STANDARD OF CARE – The generally accepted professional standard of care ordinarily used by design professionals performing a similar scope of services in the same geographic area on projects of comparable size and complexity.

SUBCONSULTANT – The Subconsultants listed on page 1 of this Contract, together with any additional Subconsultants engaged by the Designer from time to time, which shall be an individual, company, firm, or business having a direct contractual relationship with the Designer, who provides services on the Project.

SUBCONTRACTOR – The person or entity having a direct contractual relationship with the Contractor, or CM at Risk who has the contract to perform the construction of the Project, except as otherwise specifically provided or required herein or by law. Subcontractor when used also means "Trade Contractor" except when otherwise specified.

SUBSTANTIAL COMPLETION – The Work, as evidenced by the Certificate of Substantial Completion, is fully complete or substantially complete so that the value of the Work remaining to be done is, in the estimate of the Owner, less than one percent of the original contract price, or (2) the Contractor substantially completes the work and the Owner takes possession for occupancy, whichever occurs first.

TOTAL PROJECT BUDGET – A complete and full enumeration of all costs of the Project, as defined in the Project Scope and Budget Agreement or Project Funding Agreement.

TRADE CONTRACTOR – a subcontractor having a direct contractual relationship with a Contractor or CM at Risk to perform one or more so-called sub-bid classes of work listed in M.G.L. c.149, §44F, and any other sub-bid classes of work selected by the Owner for the Project in accordance with the provisions of either M.G.L. 149, §44F(1)(a) or M.G.L. c. 149A, §8(a).

WORK – The entire construction required to be furnished under the Construction Contract Documents. Work includes performing and furnishing any and all services, obligations, duties, responsibilities, labor, materials, equipment, temporary facilities, and incidentals necessary to complete the construction assigned to, or undertaken by the Contractor or the CM at Risk pursuant to the Construction Contract Documents.

ARTICLE 2: RELATIONSHIP OF THE PARTIES

2.1 The Owner's Project Manager shall act as an independent contractor of the Owner in providing certain project management services required for the Project required for the project except where the OPM is an existing public employee of the Owner as described in M.G.L. c. 149, § 149A1/2.

2.2 The Designer is solely responsible for providing the design for the Project and for performing in accordance with this Contract.

2.3 The Contractor or CM at Risk, as the case may be, shall be solely responsible for construction means, methods, techniques, sequences and procedures, the Contractor's or CM at Risk's schedules, and for safety precautions and programs in connection with the Project and for performing in accordance with the Owner-Contractor or Owner - CM at Risk Agreement. The Designer shall be responsible for the Designer's negligent acts or omissions but shall not have control over or charge of acts or omissions of the Contractor or CM at Risk, Subcontractors, or the agents or employees of the Contractor or CM at Risk or Subcontractors, the Owner's Project Manager, the Authority or its Commissioning Consultant or other technical consultants.

2.4 Nothing in this Contract shall be construed as an assumption by the Designer of the responsibilities or duties of the Contractor or CM at Risk or the Owner's Project Manager. It is the intention of the parties that the Designer's services shall be rendered in a manner compatible with and in coordination with the services provided by the Owner's Project Manager and the Commissioning Consultant. It is not intended that the services of the Designer and the Owner's Project Manager or the Commissioning Consultant be competitive or duplicative, but rather complementary. The Designer shall be entitled to rely upon the Owner's Project Manager, Commissioning Consultant and Contractor or CM at Risk for the proper performance of their obligations pursuant to their respective contracts with the Owner.

ARTICLE 3: RESPONSIBILITIES OF THE OWNER

3.1 The Owner shall have the right to approve the Designer's work.

3.2 The Owner shall designate an individual who shall have the authority to act on behalf of the Owner under this Contract and who shall be responsible for day-to-day communication between the Owner and the Designer.

3.3 Upon satisfactory completion of services performed, the Owner shall make payments to the Designer as provided in Articles 6, 7, 8 and 9, 10 and 11.

3.4 To the extent such data is available, the Owner shall furnish to the Designer existing surveys of the site, building plans, borings, test pits, structural, mechanical, chemical or other test data, tests for air and water pollution and for hazardous materials, photographs, reports and utility information. The Designer shall be entitled to reasonably rely upon the sufficiency

and accuracy of the information furnished to the Designer under this Article 3.4 and under Article 4.11, provided that the Designer shall coordinate its services with the services of the Owner's consultants and shall notify the Owner in writing of any deficiencies in such data of which the Designer becomes aware.

3.5 Except as otherwise provided in this Contract, or when direct communications have been specially authorized, the Owner shall endeavor to communicate with the Contractor or CM at Risk and the Designer's consultants through the Designer about matters arising out of or relating to the Construction Contract Documents. The Owner shall promptly notify the Designer of any direct communications that may affect the Designer's services.

3.6 The Owner shall provide the Designer access to the Project site prior to commencement of the Work and shall obligate the Contractor or CM at Risk to provide the Designer access to the Work wherever it is in preparation or progress.

3.7 If the Owner requests the Designer to execute any certificates that are not readily available as of the effective date of this Contract, the proposed language of such certificates shall be submitted to the Designer for review at least 14 days prior to the requested dates of execution. The Designer shall not be required to execute certificates or consents that would require knowledge, services or responsibilities beyond the scope of this Contract.

3.8 The Owner shall deliver to the Designer in a timely manner written copies of all Approvals required by this Contract. If Approval is withheld, the Owner shall notify the Designer in a timely manner in writing why such Approval is being withheld.

3.9 The Owner shall not unreasonably withhold, delay, condition, or deny any approval, acceptance, or consent required under this Contract, including any Approval.

ARTICLE 4: RESPONSIBILITIES OF THE DESIGNER

4.1 The Designer shall perform the Designer Services in accordance with the requirements of this Contract, and in accordance with the Standard of Care. The Designer shall exercise due care and diligence in the rendition of all services under this Contract in accordance with such professional standards and shall exercise the Standard of Care to provide the services required under this Contract in conformity with all Applicable Laws.

4.2 The Designer shall be responsible for the Designer Services including any changes to such Services that may be required in accordance with this Contract. The Designer shall furnish appropriate competent professional services for each of the Phases in accordance with the Standard of Care. Any changes, corrections, additions or deletions requested by the Owner and the Authority shall be incorporated into the design of the Project unless detailed objections thereto are issued in writing by the Designer, subject to Article 8.2.2. Nothing herein shall be construed as an assumption by the Owner or the Authority of the responsibilities or duties of the Designer.

4.3 The Designer Services shall be performed as expeditiously as is consistent with orderly progress of the work, consistent with the agreed upon project design schedule as established under Article 7.4.2 and as it may thereafter be amended by the parties from

time to time. In the event of delays due to causes outside of the Designer's control, the project design schedule may be extended as necessary, and Designer's compensation may be equitably adjusted pursuant to Article 6.6 to the extent that Designer incurs additional direct costs caused by the delay. Time is of the essence for the duration of this Contract.

4.4 The Designer shall provide the scope of services required by this Contract, as described in more detail in the RFS and Attachment A.

4.5 The Designer shall comply with the terms and conditions of all project agreements executed between the Owner and the Authority and any and all administrative directives issued by the Authority, now in effect or hereafter promulgated during the term of this Contract, without any additional compensation, that are applicable to Designer's Services under this Contract and that have been provided or are readily available to Designer prior to such Services being performed. The Owner shall reasonably compensate the Designer for complying with any term or condition of a project agreement executed between the Owner and the Authority or any administrative directive issued by the Authority, that was not provided to or was not readily available to the Designer prior to such Services being performed and that materially impacts the Designer's scope or other aspect of its Services, Fee, schedule, or any obligations and responsibilities under this Contract.

4.6 The Designer acknowledges the importance that the Owner attributes to the abilities and qualifications of the key members of the Designer's team, including Subconsultants, and the continuity of key members' participation in the services to be provided under this Contract. This Contract has been entered into in reliance on the Designer's representation that the individuals, consultants, assignments and responsibilities will be maintained throughout the duration of this engagement. No substitution or replacement of individuals or change in the Subconsultants, listed on pages 1-2 of this Contract, shall take place without the prior written approval of the Owner and the Authority, except when necessitated by causes beyond the Designer's control (such causes shall include if an individual leaves or is no longer associated with the Designer's firm). If the Designer proposes to replace one of the members of the Designer's team, the Designer shall propose a person or consultant with qualifications at least equal to the person or firm the Designer proposes to replace. The Owner and the Authority shall have the right to approve any substitution or replacement or change in status for the persons or Subconsultants listed on page 1-2 of this Contract and such approval shall not be unreasonably withheld. At the request of the Owner, the Designer shall consult with the Owner to resolve any situation in which the Owner determines that a member of the Designer's team is failing to perform services in an acceptable manner to the Owner. The Owner shall have the right to direct the removal of any such person or consultant. The Owner shall work in good faith with the Designer to resolve any material problems identified by the Owner in writing regarding performance of the Designer's obligations under this Contract. No act or omission of the Owner or the Authority made or permitted under this Article shall relieve the Designer of its responsibility for the performance of the services specified in this Contract.

4.7 The Designer shall compile and distribute a job directory which includes all names, addresses, phone and fax numbers, and e-mail addresses of the representatives of the Designer and their Subconsultants. This shall be distributed upon commencement of the services, and shall be updated and redistributed as project participants and/or contact information change.

4.8 The Designer shall employ at all times adequate professional and support personnel with requisite expertise and adequate numbers to assure the complete, timely performance of the obligations of the Designer. The Designer shall acquaint its employees and Subconsultants with all provisions of the General Laws governing public construction projects, including but not limited to M.G.L. c. 149, M.G.L. 149A, and M.G.L. c. 30, that are relevant to the performance of Designer's obligations under this Contract. When directed by the Owner, the Designer shall fully cooperate with the Owner in obtaining the Criminal Offender Record Information (CORI) of the Designer and its employees and of any Subconsultants and their employees in accordance with the provisions of M.G.L. c. 71, § 38R, M.G.L. c. 6, §§ 167-178B (the so-called CORI Law), any other applicable law, and District policy. All contracts between the Designer and each Subconsultant shall include appropriate provisions requiring the Subconsultant to fully cooperate with the Owner in obtaining the Criminal Offender Record Information (CORI) of the Subconsultant and its employees as aforesaid.

4.9 The Designer shall be and shall remain liable to the Owner for all damages incurred by the Owner as a result of the failure of the Designer or its Subconsultants to perform in conformance with the terms and conditions of this Contract.

4.10 Design Within the Project Construction Budget

4.10.1 The Designer shall prepare cost estimates for the Project as described in Article 7 of this Contract or at more frequent intervals as required in the RFS. Unless otherwise specified in the RFS, the cost estimates shall be considered Basic Services and the Designer is not eligible for any additional compensation for preparing the same. The format for cost estimates shall be in accordance with the requirements of the Authority.

4.10.2 The Designer shall produce a design for the Project meeting the requirements of the scope of work described in the RFS to be constructed within the Project Construction Budget, provided that the Designer shall be permitted to recommend to the Owner such adjustments to the Project's design, consistent with the Project Funding Agreement, as the Designer reasonably believes may be required to adhere to the Project Construction Budget. In the event the Designer's cost estimate for the Project (as reconciled in accordance with the provisions of this Contract) exceeds the Project Construction Budget, the Owner may require the Designer to revise the design, drawings and specifications to keep the cost estimate for the Project within the Project Construction Budget. The Designer shall not be entitled to extra compensation for making such revisions to contain costs within the Project Construction Budget.

4.10.3 In a Project constructed pursuant to M.G.L. c. 149, §§ 44A-M, if the Project Construction Budget is exceeded by the lowest bona fide, responsible bid by any amount, the Owner shall direct the Designer to review and compare the Project Construction Budget with the bids received to identify the variances. Upon completion of this review and submission of the Designer's report to the Owner and Authority, the Owner shall, with the approval of the Authority:

(a) direct the Designer to revise the Final Design Program, Project scope and quality as required to reduce the estimated construction costs to be within the Project Construction Budget, in accordance with Article 4.10.5 of this Contract; or

(b) give written approval to the Designer of an increase in the Project Construction Budget; or

(c) authorize rebidding of the Project within a reasonable time; or

(d) terminate this Contract in accordance with Article 12.3; or

(e) implement any other mutually accepted alternative that the Owner and the Designer may agree on.

4.10.4 In a Project constructed pursuant to M.G.L. c. 149A, the Designer shall be responsible for managing the design of the Project to stay within the Project Construction Budget. If the GMP proposal submitted by the CM at Risk exceeds the Project Construction Budget, the Designer shall review and compare the Project Construction Budget with the GMP proposal submitted by the CM at Risk to identify the variances. Upon completion of this review, if directed by the Owner, the Designer shall assist the Owner in negotiating a GMP within the Project Construction Budget in accordance with Article 7.7.9. If a GMP cannot be successfully negotiated between the Owner and the CM at Risk within the Project Construction Budget, the Owner shall, with the approval of the Authority:

(a) direct the Designer to participate with the Owner, OPM, and CM at Risk in design reviews and revise the design, including appropriate revisions to drawings and specifications, as necessary in order to reach an agreement on a GMP within the Project Construction Budget; in accordance with Article 4.10.5; or

(b) give written approval to the Designer of an increase in the Project Construction Budget and resume negotiating a GMP with the CM at Risk; or

(c) terminate this Contract in accordance with Article 12.3; or

(d) implement any other mutually accepted alternative that the Owner and the Designer may agree on.

4.10.5 (a) If the Owner chooses to proceed under Article 4.10.3(a) or 4.10.4(a), the Designer and its Subconsultants, without receiving additional compensation, except if fewer than three bona fide, responsible bids were received (in the case of a Project constructed pursuant to M.G.L. c. 149, §§ 44A-44M) or (in the case of a Project constructed pursuant to G.L. c. 149A) if fewer than three bona fide responsible Trade Contractor or so-called non-trade contractor bids for each category of work were received, or if 4.10.5(b) and/or (c) applies, shall cooperate in revising the designs, drawings and specifications as may be required to reduce or modify the quality or scope or both, of the Project so that they will comply with the Project Construction

Budget as approved at the conclusion of the Construction Documents Phase or as amended. Any changes to the educational program or the approved space summary shall be subject to the written approval of the Authority. Upon completion of these revisions, the Designer shall also be required to produce a revised cost estimate demonstrating that the estimated cost of the Project does not exceed the Project Construction Budget. Revising the designs, drawings, and specifications and updating the cost estimate shall be the sole obligation on the part of the Designer with respect to 4.10.3(a) or 4.10.4(a); (b) If the Owner elects to proceed with revisions that significantly increase the complexity either of the Construction Contract Documents themselves or the Construction Administration Phase services that the Designer will have to provide, then the Designer shall be entitled to an equitable adjustment in its Fee to reflect the impact on its services; (c) If the bid or proposal referenced in 4.10.3 or 4.10.4 above was submitted on a date that is more than three (3) months after approval of the Construction Contract Documents then such revisions shall be Extra Services.

4.10.6 The Designer must receive written approval of the Owner and the Authority before the Project Construction Budget shall be considered amended.

4.11 Additional Tests and Surveys: The Designer shall be responsible for reviewing the surveys, investigations, testing and reports completed by the Owner and as provided under Article 3.4, and determining the types of additional or expanded surveys, investigations, or testing required for the Project. Such services shall be provided by qualified specialty Subconsultants as necessary. Both the types of services and the Subconsultants shall be approved by the Owner. In the event that the Designer employs the services of a Subconsultant to provide such services, the Designer shall employ such Subconsultants who have the professional liability insurance coverage described in paragraph 15.8.1 covering such services, to the extent that such insurance coverage is generally available to Subconsultants. The Designer shall, upon the Owner's written request, assign to the Owner the Designer's contractual right to pursue a claim against such Subconsultants. Such services shall be paid for as provided in Article 8 – Extra Services unless such services are specifically included as Basic Services in the RFS. Such services may include but need not be limited to:

4.11.1 Site surveys;

4.11.2 Structural tests and materials tests;

4.11.3 Geotechnical and geoenvironmental investigations and reports, including existing buildings hazardous material reports, boring tests, test pits, observation wells, testing and chemical analysis of site substrate conditions;

4.11.4 Traffic studies.

ARTICLE 5: SUBCONSULTANTS

5.1 The Designer may engage Subconsultants, subject to the prior written approval of the Owner and subject to Article 9.3, in order to perform services under this Contract. If Subconsultants are engaged, the person responsible for, and in control of, the Subconsultant

services to be provided must be professionally registered or licensed in Massachusetts in the necessary disciplines for the services if such registration or licensing is required under the applicable General Laws. The engagement of Subconsultants shall not in any way relieve the Designer from its duties and responsibilities for its work, including, without limitation, coordinating all Designer Services furnished under this Contract by the Subconsultants.

5.2 Upon request, the Designer shall provide the Owner with copies of its agreements with Subconsultants, including any amendments thereto and copies of the Subconsultant's applicable certificates of insurance.

5.3 No substitution of Subconsultants and no use of additional Subconsultants or assignment of services shall be made without prior written approval of the Owner, which approval shall not be unreasonably withheld.

ARTICLE 6: COMPENSATION

6.1 For the satisfactory performance of all services required pursuant to this Contract, excluding those services specified under Articles 8 and 9, the Designer shall be compensated by the Owner in the amounts specified in Attachment A as that Fee may be amended by written amendment to this Contract.

6.2 When the Designer receives payment from the Owner, the Designer shall promptly make payment to each Subconsultant whose work was included in the work for which such payment was received unless payment has been theretofore made. The Owner shall have the contractual right to investigate any breach of performance of a Subconsultant and to initiate corrective measures it determines are necessary and in the best interest of the Owner. All contracts between the Designer and its Subconsultants shall include a provision in which the Owner's rights to initiate corrective action shall be stipulated.

6.3 Payment Schedule

6.3.1 Payments for Basic Services shall be made monthly and, where applicable, shall be in proportion to services performed within each Phase. The amount of fees attributable to each Phase shall be as set out in the schedule in Attachment A. Payment for approved Reimbursable Expenses and/or Extra Services shall be made monthly upon receipt of an approved invoice from the Designer.

6.3.2 The Owner shall make payments to the Designer within 30 days of the Owner's approval of an invoice from the Designer. The Owner's payment for any services provided under this Contract shall not be construed to operate as a waiver of any rights under the Contract or any cause of action arising out of performance of the Contract. The Owner shall not withhold payments to offset costs alleged to have been incurred by the Owner on account of allegedly negligent acts, errors or omissions unless the Designer agrees or has been found liable for specific amounts in a binding agreement or court judgment, or unless the Designer fails to maintain the professional liability insurance required under paragraphs 15.7.1 and 15.7.2. The Owner may withhold approval of invoice items the Owner reasonably believes have not been performed in accordance with this Contract, including adjustments to payment amounts in instances where required submittals to the Authority may be found to be

missing or incomplete. If Owner and Designer continue to disagree, the disagreement shall be immediately submitted to mediation in accordance with paragraph 18.5(b).

6.4 Installment Payments During Construction

6.4.1 During the construction Phase, the Designer shall be paid the Fee for Basic Services stipulated in Attachment A.

6.4.2 Payments to the Designer during the construction Phase shall be made in equal monthly installments for the duration of the construction Phase. The amount of each payment shall be determined by dividing 95% of the fee for Construction Phase/Final Completion as stipulated in Attachment A by the number of months between the Notice to Proceed and the scheduled issuance of the Certificate of Substantial Completion as indicated in the Project Schedule as approved by the Owner. The Designer shall be entitled to Extra Services in accordance with Article 8.3 should the Project be delayed beyond the 60-day period described in Article 8.3 for reasons beyond the control of the Designer.

6.5 Final Installment: The Designer shall be paid the unpaid balance of the fee for Construction Phase/Final Completion as stipulated in Attachment A (as that fee may be amended), upon compliance with the following requirements:

6.5.1 Approval of the Certificate of Final Completion of construction (such Certificate to be in the form developed by the Authority). In cases where a Certificate of Partial Release of Retainage is approved, the Designer shall be paid up to an amount commensurate with the percent of retainage released until a Certificate of Final Completion is approved; and

6.5.2 Delivery by the Designer to the Owner of the Record Drawings required by this Contract; and

6.5.3 Verification of payment to MBE/WBE Subconsultants or Subconsultants identified on Attachment C and as required by Article 17.4; and

6.5.4 A written evaluation of the General Contractor or CM at Risk by the Designer from which the Owner shall be able to complete its submission of the Contractor Evaluations as required by M.G.L. c.149 § 44D(7).

6.5.5 In the event that the Designer is unable to comply with items 6.5.1 and 6.5.2 above due to reasons beyond the Designer's control, as determined by the Owner, Final Installment shall not be unreasonably withheld or delayed beyond 60 days after the date of Substantial Completion, provided that the Designer has complied with all other requirements.

6.6 Substantial Change

6.6.1 If there is a substantial change in the services described in the RFS to be provided by the Designer under this Contract, the Designer and the Owner will mutually agree to a

written amendment describing the services and an amended Fee for Basic Services to reflect the change and reasonable cost of such change. Such changes shall be designated on Attachment F and shall be executed by the Designer and the Owner.

6.6.2 Should the Designer and the Owner be unable to negotiate a mutually acceptable amendment to the Fee for Basic Services when there has been a substantial change in the specified services, the Owner shall unilaterally and promptly determine, in good faith and supported by a written explanation in sufficient detail, a reasonable maximum dollar amount for the services as amended and process payments to the Designer subject to said maximum amount, until an amendment to the Fee for Basic Services for such change is set by later agreement between the parties, provided, that the Designer's acceptance of such payments shall not be considered a waiver by the Designer of its right to pursue a claim for additional compensation related to the change in services, and provided that such disagreement shall be immediately submitted to mediation in accordance with paragraph 18.5(b). In no event shall the Designer stop work under this Contract due to a disagreement with the Owner regarding an amendment in the Designer's Fee for Basic Services, provided that the Owner complies with its payment obligations under this Article 6.6.

6.6.3 Notwithstanding the foregoing, the amendment to this Agreement described in paragraph 7.4.8 shall be negotiated and executed by both parties prior to the start of the subsequent Phase.

ARTICLE 7: BASIC SERVICES

7.1 The Designer shall discuss with the Owner and the Authority the requirements for each Phase before beginning work on that Phase.

7.2 The Owner and the Authority will promptly review and approve the Designer's submittals. Upon completion of its review, the Owner shall promptly and in writing:

(a) approve the submittal as made; or

(b) approve that part of the submittal that is acceptable and reject the remainder; or

(c) reject the submittal; or

(d) require the Designer to submit additional information or details in support of its submittal.

7.2.1 The description of Designer Services required during the various Phases as described in the RFS and hereinafter may include specification of the number of submittals the Designer will be required to make and estimates of the approximate number of meetings that the Designer will be required to prepare for and attend during each Phase.

7.2.2 As a part of Basic Services, the Designer shall provide six copies of each submittal to the Owner; two copies of each submittal to the Authority, and, if the Owner elects to proceed with the CM at Risk construction delivery method, one copy of each

submittal to the CM at Risk. Drawings submitted to the Authority shall be reproduced at half full size. A graphic scale shall be placed upon all such drawings prior to construction documents phase submittals. If the Designer is required to make submittals in excess of the number specified or if the Designer is required to prepare for and attend meetings in excess of the number specified for a Phase, the Designer shall be entitled to compensation for Extra Services, provided, however, that the Designer shall not be entitled to such compensation if and to the extent the Owner or the Authority shall have reasonably determined that the additional submittals or the additional meetings were required due to either the Designer's lack of preparation, or other fault due to deficiencies or omissions in documents prepared by the Designer.

7.2.3 All document submittals shall be in the form of neatly bound printed material, and delivered to the location or locations as indicated by the Owner and Authority. One or more document submittal components may be submitted in an approved electronic format, subject to specific authorization by the Owner and/or Authority.

7.2.4 Electronic Submittals: In addition to all other submittals called for by this Article 7 and elsewhere in the Contract, including but not limited to hard copies and reproducibles of all submittals, the Designer shall submit two (2) electronic copies on compact disks for all required submissions of Deliverables called for by this Contract ("Electronic Submittals"). All Electronic Submittals shall be deemed to be Materials that are subject to all provisions of Article 16. The Electronic Submittals shall be provided on CD electronic format as approved by the Owner and Authority and as follows:

(a) All drawings shall be provided in standard AutoCAD software (release number and version to be established at time of contract execution) or in a compatible electronic CADD (.dxf) format or other industry-standard format as approved by the Owner and acceptable to the Authority. Electronic file naming convention shall be acceptable to the Owner and the Authority.

(b) All other documents shall be provided in pdf format, Microsoft Word, Excel, Project, or PowerPoint, as applicable to the particular submittal.

(c) All submittals shall be labeled identifying project name and number, file name, drawing title, software and release, and layering system.

(d) The Owner reserves the right to require the Designer to provide all electronic media as may be required at any time during the duration of this Contract due to technology upgrades and/or changes to the electronic systems used by the Owner or Authority, provided that if such requirement demands that the Designer purchase new software or train existing employees for the application of media or software such costs shall be a Reimbursable Expense but only to the extent that such purchase of

new software or training of existing employees is unique or exclusive to the particular requirements of the Owner or the Authority for this particular Project.

(e) The Designer's compliance with the terms of this Article shall be performed as part of the Basic Services under the Contract, and the Designer shall not receive any additional compensation for providing the Electronic Submittals, (including but not limited to conversions or copies of software), except as specified herein. The Designer shall not be responsible for any use of Electronic Submittals on hardware or software for which it was not intended. Creation of a Building Information Model is excluded from the definition of Electronic Submittals; if the Owner requests the Designer to create such a Model, the parties shall execute a separate agreement and Designer shall receive Extra Services for its creation.

7.2.5 In reviewing and preparing all documents for evaluation as part of the Feasibility Study and/or any other design phase for which the Designer may be authorized, the Designer shall determine gross area and net areas in the following manner in order to maintain uniformity in computation and consistency of both gross and net square foot areas of buildings:

Gross Area: The area included within the outside faces of the exterior walls for all stories. Custodial areas such as janitor closets, building maintenance and building employees' locker rooms, circulation areas such as corridors, lobbies, stairs, and elevators, and mechanical areas such as those designated to house mechanical and electrical equipment, utility services, and non-private toilets shall be considered as part of the gross area, but not part of the net area.

Net Areas: In general, those areas which have a specific assignment and functional program use as determined by the facility, including, but not limited to, areas such as cafeterias, auditoriums, libraries, administrative and classrooms. These shall be measured from the inside finish of permanent outside walls to the inside finish of corridor walls, and to the inside finish of intermediate partitions.

7.3 Feasibility Study Phase:

7.3.1 The Designer shall familiarize itself with the Authority's Guidelines and Standards for feasibility studies that further specify the work to be performed by the Designer during this Phase and shall perform its Feasibility Study Phase services in accordance with such Guidelines and Standards and the provisions of this Contract. The Designer shall meet with the Owner to arrive at a mutual understanding of the requirements of the Feasibility Study. The Designer shall submit a proposed work plan including anticipated tasks and submittals.

7.3.2 The Owner is required to ascertain the Authority's input and approval throughout the study process; therefore, the Designer shall develop and prepare the documentation required by the Feasibility Study to assist the Owner in securing the Authority's concurrence and/or approval at the following milestones before proceeding to the next milestone (Note that some of the approvals to move to the next milestone require a vote of the Authority's Board of Directors):

(a) Preliminary design program;

(b) Budget Statement for Educational Objectives, as defined by 963 CMR 2.02;

(c) Development of alternatives to be studied;

(d) Preliminary evaluation of alternatives;

(e) Final Evaluation of Alternatives;

(f) Recommendation to the Authority's Board of Directors of the preferred alternative that will be advanced to schematic design.

7.3.3 The Designer shall cooperate with the Owner and the Authority to define and develop a few reasonable, educationally sound, cost effective, and practical solutions for the Owner and Authority's evaluation that satisfy the Owner's educational program requirements that were provided by the Owner to the Designer. The alternatives considered shall address the following as a minimum:

(a) Analysis of school district student school assignment practices and available space in other schools in the district; and

(b) Tuition agreements with adjacent school districts (per M.G.L. c.70B §8); and

(c) Rental or acquisition of existing buildings that could be made available for school use. (per M.G.L. c.70B §8); and

(d) Renovation and/or addition to existing building(s) and related facilities or fields, if appropriate to the Project; and

(e) No-build or status quo option, to be used as a benchmark for comparative analysis of all other alternatives; and

(f) In some cases, it may also be appropriate to consider construction of new building and the evaluation of potential locations.

7.3.4 Feasibility Study submittals shall be provided pursuant to Article 7.2.2 and shall be subject to the written Approval of the Owner.

7.3.5 The Designer shall present and explain the Feasibility Study to the Owner and the Authority and at a local public meeting, if any such meeting is scheduled, or in conference.

7.3.6 The Designer shall meet with the Owner every other week during this Phase.

7.4 Schematic Design Phase

7.4.1 Upon receipt of an Approval to proceed to Schematic Design Phase, the Designer shall meet with the Owner to arrive at a mutual understanding of the requirements of the Final Design Program approved in writing by the Owner and the Authority.

7.4.2 The Designer shall submit a proposed design work plan pursuant to this Contract including anticipated tasks and submittals. The Designer shall also submit to the Owner a proposed schedule consistent with any Project Schedule included in the RFS (Attachment B) modified as required by any subsequent schedule changes or delays outside of Designer's control. The schedule shall contain dates for submittals, deliverables, actions, milestones, design workshops, meetings and the critical path through all design service activities. It shall include time for the Owner's and the Authority's review and approval of submittals and for necessary submissions for permits in connection with the Project. The work plan shall also include a work plan schedule of values consistent with Attachment A, which shall be the basis for which payments of the Fee for Basic Services within each Phase shall be made. The work plan schedule of values shall identify deliverables within each Phase and percentages of the phase fee payable upon completion of such deliverable. When approved by the Owner as provided in Article 7.4.8, the work plan schedule of values shall govern the timing of payments of the Fee for Basic Services upon completion of deliverables within each Phase and as each Phase progresses.

7.4.3 The Designer shall: Prepare a preliminary evaluation of the Recommended Preferred Solution from the Feasibility Study, the Final Design Program, and Proposed Total Project Budget; collect and study all available drawings, reports, maintenance reports, and other existing data pertaining to the Project; conduct a thorough on-site review of conditions relating to the Project; assure that the "Recommended Preferred Solution" complies with all applicable codes and regulations, including any special design standards supplied by the Authority and its Commissioning Consultant; and meet with local building officials to identify and confirm applicable standards, codes and any project specific criteria.

7.4.4 The Designer shall develop the Recommended Preferred Solution to a full schematic design level. Schematic design level documentation shall be based on the Final Design Program, shall incorporate Owner and Authority comments and shall include each of the following, to the extent applicable to the Recommended Preferred Solution:

(a) Traffic Analysis - analyze the impact of anticipated vehicular and pedestrian traffic, including impacts to existing infrastructure, to determine efficient and safe site access.

(b) Environmental and Existing Building Assessment – Provide additional site and building assessments as may be required to quantify presence of unsuitable materials and scope of possible remediation efforts.

(c) Geotechnical and Geoenvironmental Analysis – Provide additional geotechnical analysis as may be required to describe soil conditions, remediation requirements and appropriate foundation.

(d) Program Analysis - a space measurement analysis for the design which shall verify that the sum of all program floor areas plus all other floor areas equal the gross floor area of the Final Design Program.

(e) Code Analysis – Determine the impact of all applicable federal, state, regional and local codes, regulations and ordinances, including a listing of permitting and other regulatory filing requirements.

(f) Utility Analysis – Determine the availability and capacity of all required building utilities. Provide soils analysis and preliminary design for on-site septic/sewage treatment facilities, if required.

(g) Massing Study – an analysis of the building's integration into its surroundings and neighborhood with drawings, models, or photographs.

(h) MA-CHPS or LEED-S Scorecard – Pursuant to the Authority's Sustainable Building Design Guidelines complete a MA-CHPS or LEED-S for Schools Scorecard and describe sustainable design features and each high performance green school prerequisite and credit included in the proposed design and a plan for implementation or inclusion of any appropriate public utility energy conservation design programs.

(i) Accessibility - an analysis of the design's compliance with the Americans with Disabilities Act (ADA) and the Massachusetts Architectural Access Board requirements (MAAB).

(j) Building Systems Descriptions – Describe in narrative and on schematic plans basic information relative to:

1. Building Structure - a written narrative of the design approach to the structural systems including discussion of the feasible options for foundations and superstructure as well as treatment of special situations such as unusual soils conditions or long spans.

2. Plumbing and HVAC - written narratives of the basic systems and proposed fuel source(s) and a preliminary life cycle cost analysis pursuant to the criteria of M.G.L. c. 149 § 44(m). Provide schematic plans indicating basic distribution concepts and the location of major equipment items such as boilers, water heaters, cooling towers, chillers, air handling units, heat recovery units, exhaust stacks, and special systems (e.g. fume exhausts).

3. Fire Protection - written narratives of the basic systems and design criteria. Provide schematic plans indicating basic distribution concepts and the

location of major equipment items such as fire pumps, standpipes, and fire department connections.

4. Electrical (including power, lighting, communications, fire alarm, video/CATV, security/surveillance) - written narratives of the proposed electrical and communications systems resources, needs, and proposed scope. Provide schematic plans indicating basic distribution concepts and the location of major equipment items such as switchgear, standby generator, and control centers/panels.

5. Information Technology - written narratives of the proposed information technology system resources, needs, and proposed scope. Provide schematic plans indicating basic distribution concepts, and location of major equipment items such as switches and hubs.

(k) Outline specifications in accordance with applicable CSI Divisions that clearly define the scope of construction, identify the sub-trades pursuant to M.G.L. c. 149 § 44F, establish the quality of materials, finishes, products, equipment and workmanship, and the special or unique conditions of construction.

(l) Project Schedule - Provide a reasonable level of design-related input to the OPM such that the OPM can prepare a draft schedule for the proposed project for the Owner in the form of a graphic representation (Gantt Chart) of the duration of all tasks, activities and phases of the design and construction processes against the progression of time up to a proposed occupancy date. Dependencies between activities and tasks will be delineated. Individual tasks and activities will be rolled up to the major project milestones. Provide input to the OPM regarding priority actions and activities that may have a major impact on the schedule. The OPM, not the Designer, is responsible for preparing and maintaining the draft and updated project schedule document, except as it pertains to the project design schedule developed under Article 7.4.2.

(m) Construction cost estimate - in Uniformat II Level 3 format with aggregated unit rates and quantities supporting each item. If independent cost estimates are prepared for the Owner by the OPM in this or subsequent phases, then the Designer shall work with the OPM to resolve such any differences in a cost reconciliation process and shall involve any relevant parties in such process.

(n) Siting analysis, including content, traffic and access, topographic and utilities recognition.

(o) Site Development Plan – Site plan shall be at a minimum scale of 1 inch equals 40 feet and include property lines with bearings and distances, building setbacks, site acreage, wetlands information, proposed and existing topography, proposed and existing buildings and site features, floor and roof

elevations for all buildings, proposed and existing utilities and utility connections, and emergency equipment access.

(p) Schematic Building Floor Plans of all floors and roof at a minimum scale of 1/16" =1'-0" showing all elements of the building including overall dimensions, gross square footage of each floor and net square footage of each space, response to functional requirements of program, major and minor access, circulation, and room data sheets.

(q) Schematic Exterior Building Elevations for all sides and orientations indicating all exterior finishes and fenestration.

7.4.5 Schematic design phase drawings, specifications, construction cost estimates and other submittals shall be subject to the written Approval of the Owner, which Approval shall not be unreasonably delayed, withheld, conditioned, or denied. Unless a lesser number is requested by the Owner, the Designer shall submit to the Owner for approval six (6) copies of schematic design drawings, specifications, cost estimates, and other submittals. Two (2) additional copies shall be submitted to the Authority by the Designer.

7.4.6 The Designer shall present and explain the Schematic Design to the Owner, the OPM and the Authority and at a local public meeting, if any such meeting is scheduled, or in conference.

7.4.7 The Designer shall meet with the Owner every other week during the Schematic Design Phase.

7.4.8 Prior to the issuance of an Approval to proceed to the Design Development Phase, the Designer and the Owner shall meet to finalize the design work plan, project schedule, and schedule of values described in Article 7.4.2, and they shall if necessary execute an amendment to the Contract to include all required modifications to govern the subsequent phases of the Designer's services.

7.4.9 <u>Construction Delivery Method Evaluation and Selection</u>

(a) The Designer shall assist the Owner in determining the appropriate construction delivery methodology for the Proposed Project. In providing such assistance, the Designer, in conjunction with the Owner's Project Manager, shall advise the Owner on the relative advantages and disadvantages associated with each of the construction delivery methods provided in M.G.L. Chapters 149 and 149A. The decision to pursue a particular construction delivery method shall be within the sole discretion of the Owner, subject to the approval of the Inspector General as provided in M.G.L. c. 149A, §4. The services provided by the Designer in assisting and advising the Owner in its determination of the appropriate construction delivery methodology shall be included in Basic Services.

(b) If the Owner elects to construct the Project using the CM at Risk construction delivery method pursuant to M.G.L. c. 149A, and has obtained the approval of the Office of the Inspector General to do so, with the Approval of the Owner, this Contract shall be amended using the Authority's Standard Amendment for CM-R which includes Articles 7.5 through 7.10. If the Owner elects to construct the Project using the Design-Bid-Build ("DBB") construction delivery method pursuant to M.G.L. c. 149, with the Approval of the Owner, this Contract shall be amended using the Authority's Standard Amendment for DBB, which includes Articles 7.5 through 7.9.

7.5 INTENTIONALLY OMITTED

7.6 INTENTIONALLY OMITTED

7.7 INTENTIONALLY OMITTED

7.8 INTENTIONALLY OMITTED

7.9 INTENTIONALLY OMITTED

7.10 INTENTIONALLY OMITTED

ARTICLE 8: EXTRA SERVICES

8.1 General

8.1.1 Extra Services are those services requested by the Owner to be performed by the Designer but which are additional (or "extra") to the services performed as Basic Services. Such services are not included in the Fee for Basic Services and shall be invoiced and paid for separately. Extra services shall not be deemed authorized until a written Approval is received from the Owner, which Approvals shall not be unreasonably delayed, withheld, denied, or conditioned.

8.1.2 The proposed cost, scope and schedule of all Extra Services shall be presented and approved by the Owner in writing prior to the performance of any Extra Services.

8.1.3 Cost proposals for Extra Services shall be computed in accordance with Attachment A.

8.2 Unless specifically stated elsewhere and only with the prior written Approval of the Owner, the Designer shall perform any of the following services as Extra Services:

8.2.1 preparing measured drawings and detailed construction investigations documentation for existing buildings when such documentation does not exist;

8.2.2 substantially revising previously approved reports, drawings, specifications or other documents to address changes authorized or requested by the Owner, including substantial changes in its size, quality, complexity, design, Budget, and/or bidding method or bid packages, and changes in Applicable Laws;

(a) Notwithstanding the provisions of 8.2.2, revisions prepared by the Designer to keep construction costs within the Project Budget that are required pursuant to

Article 4.10 of this Contract to be without additional compensation, or to correct incorrect items for which the Designer has responsibility, shall not be Extra Services;

8.2.3 preparing documents for bidding alternates requested by the Owner, except for a reasonable number and extent of alternates to keep construction costs within the Project Budget which shall be Basic Services;

8.2.4 revising Construction Contract Documents which have been initially submitted and approved in their final and complete form, if general bids (Chapter 149) or subcontractor bids (Chapter 149 or 149A) for work required thereunder are not advertised based on such Construction Contract Documents within four months after initial submission;

8.2.5 services in connection with rebidding if the need to rebid is not attributable to the Designer;

8.2.6 attending meetings with the Owner, Owner's Project Manager, the Authority, Department of Labor and Workforce Development, the Office of Attorney General, the Office of the Inspector General, or the CM at Risk (if the project is constructed pursuant to M.G.L. c. 149A) in matters of dispute if attendance is required by the Owner, provided such dispute did not arise due to the fault of the Designer;

8.2.7 furnishing other services in excess of Basic Services made necessary by the default or failure of performance of the General Contractor or CM at Risk or Subcontractors;

8.2.8 providing consultation with respect to replacement of work damaged by fire or other casualty during construction;

8.2.9 preparing change orders and supporting data in accordance with Article 10, or modifying the Construction Documents in response to an unreasonable amount of substitutions proposed by the Contractor or CM at Risk, or responding to unreasonable and excessive requests for information (RFIs) by the Contractor or CM at Risk, where such information is available from a careful study and review of the Construction Documents;

8.2.10 assisting the Owner in litigation or claims arising out of the Owner-Contractor Agreement or Owner-CM at Risk Agreement, provided such litigation or claims did not arise due to the fault of the Designer;

8.2.11 performing services during a construction period extended beyond the additional 60 calendar day period, specified in Article 8.3;

8.2.12 performing professional services which are not otherwise required under this Contract as Basic Services;

8.2.13 providing services in connection with partial completion or partial systems completion inspections at the time of Substantial Completion of the Work or of a

project construction phase and/or separate bidding package due to delay by the Contractor or CM at Risk in completing the Work on schedule;

8.2.14 providing services in connection with Contractor, CM at Risk or Bidder disputes or questions arising out of the bidding process, unless such protest is a result of an act or omission of the Designer. Such services include research and preparation for and appearance at bid protest hearing and similar proceedings.

8.3 Construction Phase Services Provided after the Original Construction Completion Date

8.3.1 If construction of the Work, or of a project construction phase and/or separate bidding package has not reached substantial completion within the original construction period (as set forth in the Owner-Contractor or Owner-CM at Risk Agreement and as agreed to by the Designer), there shall be added to said construction period a period of sixty (60) calendar days, during which period the Designer shall continue to provide construction phase services for which no extra compensation shall be paid for the services described in Article 7.9 and 7.10.1 through 7.10.4 in a CM at Risk Project or for the services described in Articles 7.8 and 7.9.1 through 7.9.4 in a DBB Project.

8.3.2 If construction has not reached Substantial Completion after the 60 additional calendar days, the Designer shall thereafter be entitled to Extra Services compensation for providing the services described in Articles 7.10.3 (which are fully defined under Article 7.9.2) and 7.10.4 in a CM at Risk Project or for the services described in Articles 7.9.3 (which are fully defined under Article 7.8.2) and 7.9.4 in a DBB Project. The Designer may also be entitled to Extra Services compensation for tasks performed beyond the added sixty (60) calendar days period for tasks related to Article 7.9.1 (d) through (i) in a CM at Risk Project or 7.8.1(d) through (i) in a DBB Project. In any event, the Designer is required to identify and present the anticipated Extra Services contemplated under Article 8.3.2 in accordance with Article 8.1. In no event shall the Designer be entitled to any additional compensation on account of an extended construction period if and to the extent that a binding agreement or decision that results from a dispute resolution proceeding determines that the Designer's acts or inactions caused the construction period to be extended.

8.4 In the event of an emergency the Designer may proceed to perform Extra Services as required to meet the emergency after obtaining the verbal approval of the Owner. The Designer shall provide a written report to the Owner, as soon after the emergency arises as possible, and such report shall describe the emergency and the Extra Services that were performed.

8.5 Invoices for Extra Services shall be accompanied by a breakdown listing the name, payroll title, date, number of hours by day, hourly rate and extended amount, per specified task of Extra Services performed. Hourly rates shall be in accordance with the Hourly Rate Schedule in Attachment A.

ARTICLE 9: REIMBURSABLE EXPENSES

9.1 For coordination and responsibility for the services, materials and costs described in 9.1.1 through 9.1.6, the Designer shall be reimbursed its actual costs and those of its Subconsultants, supported by invoices or receipts, plus 10%. The following are reimbursable expenses, when authorized by the Owner:

9.1.1 The actual cost to the Designer for Subconsultants and for additional tests under 4.11 provided, however, that reimbursement for such costs shall not be made unless the rates of compensation, the total estimated cost of the services and the scope of work for said services shall have been previously approved in writing by the Owner.

9.1.2 The cost of printing more than nine (9) sets of design submittals for a CM at Risk project, or more than eight (8) sets of design submittals for a project pursuant to G.L.c. 149, or more than two electronic versions thereof per design submission deliverable phase or sub-phase.

9.1.3 The cost of printing the bid documents and the related copying, postage, and handling services during a prequalification or bid period.

9.1.4 The cost of reproducing the mylar reproducibles of the construction drawings for use by the General Contractor or CM at Risk in preparing the record drawings.

9.1.5 Out of pocket expenses paid by the Designer such as filing fees, testing, and permit fees if such fees would be normally paid by the Owner.

9.1.6 Renderings, models, mock-ups, photographs and any other presentation materials.

9.1.7 Other expenses deemed necessary or appropriate by the Owner in writing.

9.2 Non-Reimbursable Expenses: The Owner shall not reimburse the Designer or its Subconsultants for travel expenses, sustenance, telephone, copying, facsimiles, electronic mails, postage and delivery expenses or cost estimating, unless specifically required elsewhere in this Contract.

9.3 The Designer shall not be entitled to compensation under this Article for the services of Subconsultants hired to perform Basic Services under this Contract.

ARTICLE 10: COMPENSATION AND RESPONSIBILITY FOR CHANGE ORDERS

10.1 The Designer shall be entitled to Extra Services compensation for preparing Change Orders initiated by the Owner except as provided in Article 10.3.

10.2 The Designer shall not be entitled to Extra Services compensation for preparing Change Orders to adjust the scope of construction work which arises from existing conditions for which unit prices have been specified in the Construction Contract Documents.

10.3 The Designer shall not be entitled to Extra Services compensation for preparing Change Orders necessary to address errors or omissions by the Designer.

10.4 Change Orders for which the Designer is not entitled to compensation are to be referred to as "no fee change orders."

10.5 The fact that the Designer is not entitled to compensation for preparing a Change Order shall not limit any legal remedies which the Owner may have for recovering its additional costs necessitated by the Change Order.

ARTICLE 11: RELEASE AND DISCHARGE

11.1 The acceptance by the Designer of the last payment under the provisions of Article 6.5 or Article 12 in the event of termination of the Contract, shall in each instance, operate as and be a release to the Owner and the Authority and their employees and officers, from all claims of the Designer and its Subconsultants for payment for services performed and/or furnished, except for those written claims submitted by the Designer to the Owner with, or prior to, the last invoice.

ARTICLE 12: ASSIGNMENT, SUSPENSION, TERMINATION, NO AWARD

12.1 Assignment:

12.1.1 The Designer shall not assign or transfer any part of its services or obligations under this Contract (other than as specified in this Article 12), without the prior written approval of the Owner and the Authority. Likewise, any successor to the Designer must first be approved by the Owner and the Authority before performing any services under this Contract. Such written consent shall not in any way relieve the Designer or its assignee from its responsibilities under this Contract. The Owner shall not assign this Contract without the written consent of the Designer.

12.2 Suspension:

12.2.1 The Owner may, at any time, effective upon fifteen (15) business days written notice to the Designer, suspend this Contract. If the Owner provides such written notice, the Designer shall be compensated for Services satisfactorily performed in accordance with the Contract terms prior to the effective date of such suspension; invoices for such Services shall be properly submitted, but may be submitted after the date of such notice up to the effective date of suspension.

12.2.2 If a written notice of suspension issued pursuant to sub-paragraph 12.2.1 lasts for more than 90 consecutive calendar days, the Designer may, upon resumption of the Contract, be entitled to additional compensation for actual costs incurred due to such suspension provided that the suspension was not attributable to the Designer's fault.

12.3 Termination:

12.3.1 (a) By written notice to the Designer, the Owner may terminate this Contract effective on five (5) calendar days notice without cause. All compensation and reimbursement due to the Designer in accordance with the Contract terms, for services satisfactorily performed up to the date of termination, including proportionate payment for portions of the services started but incomplete at the time of termination, shall be paid to the Designer, provided no payment shall be made for services not yet performed or for

anticipated profit on unperformed services. (b) Owner may terminate this Contract effective on five (5) calendar days notice for cause, and no further payment shall be due to the Designer to the extent the Owner can reasonably identify damages in specific amounts for which the Designer is liable under this Contract; Owner shall pay other amounts otherwise due and owing to the Designer.

12.4 Suspension or Termination by Designer: By written notice to the Owner and the Authority, the Designer may suspend or terminate (at Designer's sole option) this Contract:

12.4.1 if the Owner, within thirty (30) days following written notice from the Designer of any material default by the Owner under the Contract (including failure to pay in accordance with the Contract), shall have failed to cure such default; or

12.4.2 if, after the Designer has performed all services required during any Phase prior to construction and at least three (3) months have elapsed without receipt by the Designer of Approval to proceed with the next Phase of the Project, provided the delay was not the fault of the Designer. This provision shall not apply to a Designer who has received a notice of suspension pursuant to 12.2.

12.4.3 Upon a proper termination by the Designer, the Designer shall be compensated as provided in 12.3.1 above regarding termination without cause.

12.5 No Award of Owner-Contractor Agreement: If the Project is constructed pursuant to M.G.L. c. 149, §§ 44A-44M, the Owner-Contractor Agreement is not awarded by the Owner within one hundred twenty (120) days after the receipt of general bids for the Project and the bids have not been rejected and the Project has not been suspended, the Designer shall be paid through the Bidding Phase as if a contract for construction were awarded according to the payment schedule provided in Attachment A. This Article 12.5 does not apply, however, if the Designer has been directed to perform design revisions pursuant to 4.10.2, for the purposes of bringing the design of the Project within the Project Construction Budget.

ARTICLE 13: NOTICES

13.1 Any notices required or permitted to be given hereunder shall be given in writing and shall be delivered (a) in person (b) by certified mail, postage prepaid, return receipt requested (c) by facsimile or (d) by a commercial overnight courier that guarantees next day delivery and provides a receipt, and such notices shall be addressed as follows:

If to_[_____]_;

If to_[_____]__;

If to_[_____]___;

or to such other address as the Owner, Authority and Designer may from time to time specify in writing. Any notice shall be effective only upon delivery, which for any notice given by facsimile shall mean notice that has been received by the party to whom it is sent as evidenced by confirmation slip that bears the time and date of request.

ARTICLE 14: INDEMNIFICATION

14.1 For claims arising out or relating to negligent errors and omissions in the performance of professional services rendered by the Designer, to the fullest extent permitted by law, the Designer shall indemnify and hold harmless the Owner and its officers and employees from and against all claims, damages, liabilities, injuries, costs, fees, expenses, or losses, including, without limitation, reasonable attorney's fees and costs of investigation and litigation, whatsoever which may be incurred by the Owner to the extent caused by the negligence of, or the breach of this Contract by, the Designer or a person employed by the Designer, or Subconsultant for whom the Designer is responsible under this Contract.

14.2 For all other claims, to the fullest extent permitted by law, Designer shall defend, indemnify and hold harmless the Owner and the Authority and their officers and employees from and against all claims, damages, liabilities, injuries, costs, fees, expenses, or losses, including, without limitation, reasonable attorney's fees and costs of investigation and litigation, whatsoever which may be incurred by the Owner or the Authority to the extent they result from the performance of its services provided that such claims, damages, liabilities, injuries, costs, fees, expenses, or losses are attributable to bodily injury or death or injury to or destruction of tangible property and are caused by an act or omission of the Designer or a person or Subconsultant for whom the Designer is responsible under this Contract.

ARTICLE 15: INSURANCE

15.1 The Designer shall obtain and maintain at its sole expense all insurance required by law and as may be required by the Owner and by the Authority under the terms of this Contract. The insurance required hereunder shall be provided at the sole expense of the Designer or its Subconsultant, as the case may be, and shall be in full force and effect for the full term of the Contract between the Owner and the Designer or for such longer period as required under this Contract.

15.2 All policies shall be issued by companies lawfully authorized to write that type of insurance under the laws of the Commonwealth of Massachusetts with a financial strength rating of "A" or better as assigned by A.M. Best Company, or an equivalent rating assigned by a similar rating agency acceptable to the Owner and the Authority.

15.3 The Designer, and any of its Subconsultants, shall submit to the Owner originals of the required certificates of insurance simultaneously with the execution of this Contract. Certificates of insurance evidencing the coverage required hereunder, together with evidence that all premiums for such insurance have been fully paid, shall be filed with the Owner and shall be made available to the Authority upon request. Certificates shall show each type of insurance, insurance company, policy number, amount of insurance, deductibles/self-insured retentions, and policy effective and expiration dates. The Designer shall submit updated certificates to the Owner prior to the expiration of any of the policies referenced in the certificates so that the Owner shall at all times possess certificates indicating current coverage and said certificates shall be made available to the Authority

upon request. Failure by the Designer to obtain and maintain the insurance required by this Article, to obtain all policy renewals, or to provide the respective insurance certificates as required shall constitute a material breach of the Contract and shall be just cause for termination of the services of the Designer under this Contract.

15.4 Termination, cancellation, or modification or reduction of coverage or limits by endorsement of any insurance required by this Contract, whether by the insurer or the insured, shall not be valid unless written notice thereof is given to the Owner and the Authority at least thirty days prior to the effective date thereof, which shall be expressed in said notice.

15.5 The Designer or its Subconsultant, as the case may be, is responsible for the payment of any and all deductibles under all of the insurance required below. Neither the Owner nor the Authority shall be responsible for the payment of deductibles, self-insured retentions or any portion thereof.

15.6 Workers' Compensation, Commercial General Liability, Automobile Liability, and Valuable Papers

15.6.1 The Designer shall purchase and maintain at its own expense during the life of this Contract, or such other time period as provided herein, the following types and amounts of insurance, at a minimum:

(a) Workers' Compensation Insurance in accordance with General Laws Chapter 152. The policy shall be endorsed to waive the insurer's rights of subrogation against the Owner and the Authority.

(b) Commercial General Liability Insurance (including Premises/Operations; Products/Completed Operations; Contractual; Independent Contractors; Broad Form Property Damage; and Personal Injury) with a minimum limit of $1,000,000 per occurrence, $2,000,000 aggregate. The Designer shall maintain such insurance in full force and effect for a minimum period of one year after final payment and shall continue to provide evidence of such coverage to the Owner and the Authority. The Owner and the Authority shall be included as an additional insured in this policy. The policy shall be endorsed to waive the insurer's rights of subrogation against the Owner and the Authority.

(c) Automobile Liability Insurance (including owned, non-owned and hired vehicles) at limits of not less than $1,000,000 combined single limit per accident.

(d) Valuable Papers insurance in an amount sufficient to assure the restoration of any plans, drawings, computations, field notes, or other similar data relating to the work covered by the Agreement between the Owner and the Designer in the event of loss or destruction while in the custody of the Designer until the final fee payment is made or all data is turned over to the Owner, and this

coverage shall include coverage for relevant electronic media, including, but not limited to, documents stored in computer-aided design drafting (CADD) systems.

15.7 Professional Liability

15.7.1 The Designer shall maintain professional liability insurance covering negligent errors and omissions and negligent acts of the Designer and of any person or entity for whose performance the Designer is legally liable at all times while services are being performed under this Contract and for a period of six years thereafter (as calculated in accordance with the terms below in this 15.7.2). The minimum amount of such insurance shall be $2,000,000 per claim/$2,000,000 annual aggregate.

15.7.2 If the policy is in a "claims made" format, it shall include a retroactive date that is no later than the effective date of this Contract, and an extended reporting period of at least six years after the earlier of: (1) the date of official acceptance of the completed Project by the Owner; (2) the date of the opening of the Project to public use; (3) the date of the acceptance by the general contractor or the CM at Risk of a final pay estimate prepared by the Owner pursuant to M.G.L. chapter 30; or (4) the date of substantial completion of the Owner-Contractor Agreement or Owner-CM at Risk Agreement and the taking of possession of the Project for occupancy by the Owner, which requirement can be met by providing renewal certificates of professional liability insurance to the Owner as evidence that this coverage is being maintained.

15.8 Subconsultants

15.8.1 The Designer shall require by contractual obligation, and shall exercise due diligence to enforce, that any professional engineering or landscape architecture Subconsultant hired in connection with the services to be provided under this Contract shall, unless otherwise agreed in writing by the Owner, obtain and maintain all insurance required by law and as may be required by the Owner under the terms of this Contract, except that the limit of Subconsultant's professional liability insurance shall be not less than $2,000,000 per claim/$2,000,000 annual aggregate.

15.8.2 All professional liability policies obtained by Subconsultants shall be issued by companies lawfully authorized to write that type of insurance under the laws of the Commonwealth of Massachusetts with a financial strength rating of "A" or better as assigned by A.M. Best Company, or an equivalent rating assigned by a similar rating agency acceptable to the Owner and the Authority.

15.8.3 If the Subconsultant's insurance policy is in a "claims made" format, it shall include a retroactive date that is no later than the effective date of its contract with the Designer, and an extended reporting period of at least six years after the earlier of: (1) the date of official acceptance of the completed Project by the Owner; (2) the date of the opening of the Project to public use; (3) the date of the acceptance by the General Contractor or CM at Risk of a final pay estimate prepared by the Owner pursuant to M.G.L. chapter 30; or (4) the date of substantial completion of the

Owner-General Contractor Agreement or the Owner-CM at Risk Agreement and the taking of possession of the Project for occupancy by the Owner, which requirement can be met by providing renewal certificates of professional liability insurance to the Owner as evidence that this coverage is being maintained.

15.8.4 Other nonprofessional Subconsultants shall be required to maintain insurance in the types and amounts that they routinely carry in the course of their practice.

15.9 Liability of the Designer

Insufficient insurance shall not release the Designer from any liability for breach of its obligations under this Contract. Without limitation, the Designer shall bear the risk of any loss if its valuable papers insurance coverage is insufficient to cover the loss of any work covered by this Contract.

15.10 Asbestos and Hazardous Materials

15.10.1 Unless otherwise provided in the RFS, the Designer shall have no responsibility for the discovery, presence, handling, removal or disposal of or for the exposure of persons to oil or hazardous materials in any form at the Project, including but not limited to asbestos-containing materials or other hazardous materials, as defined in MGL c.21E §2.

15.10.2 In the event that the Designer employs the services of a sub-consultant to provide services related to either the testing for asbestos-containing materials or oil or hazardous materials or related to the specification of methods and procedures for the removal or remediation of such asbestos-containing materials or oil or hazardous materials, the Designer shall employ such Subconsultants who have liability insurance coverage covering such services, to the extent that such insurance coverage is generally available to Subconsultants. Upon the Owner's written request, the Designer shall assign to the Owner the Designer's contractual right to pursue a claim against such Subconsultants. Such services shall be paid for as provided in Article 9 - Reimbursable Expenses unless such services are specifically included as Basic Services in the RFS.

ARTICLE 16: OWNERSHIP OF DOCUMENTS

16.1 Unless provided otherwise by law, ownership and possession of all information, data, reports, studies, designs, drawings, specifications, materials, computer programs, documents, models, inventions, equipment, and any other documentation, product of tangible materials to the extent authored or prepared, in whole or in part, by the Designer pursuant to this Contract (collectively, the "Materials"), other than the Designer's administrative communications, records, and files relating to this Contract, shall be the sole property of, and shall vest in, the Owner and the Authority as "works made for hire" or otherwise, provided that the Owner complies with its payment obligations under this

Contract. The Owner and the Authority will own the exclusive rights, worldwide and royalty-free, to and in all Materials prepared and produced by the Designer pursuant to this Contract, including, but not limited to, United States and International patents, copyrights, trade secrets, know-how and any other intellectual property rights, and the Owner and the Authority shall have the exclusive, unlimited and unrestricted right, worldwide and royalty-free, to publish, reproduce, distribute, transmit and publicly display all Materials prepared by the Designer. The Owner and the Authority shall provide appropriate credit to the Designer, in terms agreed upon by the Design, in any publicity about or plaque at the Project. The Designer shall have a license to publish and publicly display all Materials prepared by the Designer in its normal marketing and related professional and academic activities. The Designer shall have a license to use the typical or standard details and all other replicable elements of the Materials for this Project on other future projects. At the completion or termination of the Designer's services required pursuant to this Contract, copies of all original Materials shall be promptly turned over to the Owner and the Authority.

16.2 The Owner and the Authority agree to waive any and all claims against the Designer and, to the fullest extent permitted by law, to jointly and severally defend, indemnify and hold the Designer harmless from and against any and all claims, losses, liabilities and damages incurred by the Owner or asserted by any other entity or individual arising out of or resulting from any use of the Materials on other projects, modifications of the Materials made by the Owner or others and used on this Project, or any reuse or modification of the Materials or any of Designer’s designs, drawings and specifications. The Authority shall be a party to this Contract solely for the purposes of enforcing its rights and obligations under this Article 16.

ARTICLE 17: STATUTORY REQUIREMENTS

17.1 Agent for Service of Process: If the Designer's principal place of business is outside of the Commonwealth of Massachusetts, the Designer shall appoint an agent for the service of process as provided in M.G.L. c.227, §5. The power of attorney reflecting such appointment shall be filed with the Secretary of State as provided in M.G.L. c.227, §5. Copies of the power shall be provided to the Owner. There shall be no lapse in such agency for as long as the Designer may have potential liability.

17.2 Truth-in-Negotiations Certificate (M.G.L. c.7C, §51)

17.2.1 If the Designer's fee has been negotiated, the Designer must file a truth-in-negotiations certificate prior to execution of this Contract by the Owner. The certificate shall contain the following certifications:

(a) that wage rates and other costs used to support the Designer's compensation are accurate, complete, and current at the time of contracting; and

(b) that the Contract price and any additions to the Contract may be adjusted within one year of completion of the Contract to exclude any significant

amounts if the Owner determines that the fee was increased by such amounts due to inaccurate, incomplete or noncurrent wage rates or other costs.

17.3 Certification Pursuant to M.G.L. c.7C §51 (d): In accordance with M.G.L. c.7C §51(d), the person signing this contract certifies, as a duly authorized signatory of the Designer, that the Designer has not given, offered or agreed to give any person, corporation, or other entity any gift, contribution or offer of employment as an inducement for, or in connection with, the award of this Contract; no Consultant to or Subconsultant for the Designer has given, offered or agreed to give any gift, contribution or offer of employment to the Designer, or to any other person, corporation, or entity as an inducement for, or in connection with, the award to the Designer or Subconsultant of a contract by the Designer; and no person, corporation or other entity, other than a bona fide full-time employee of the Designer, has been retained or hired by the Designer to solicit for or in any way assist the Designer in obtaining this Contract upon an agreement or understanding that such person, corporation or other entity be paid a fee or other consideration contingent upon the award of this Contract.

17.4 Minority-Owned and Woman-Owned Business Participation: Pursuant to M.G.L. c. 7C, § 6, the Designer shall subcontract with minority-owned business enterprises (MBE) and women-owned business enterprises (WBE), as certified by the Supplier Diversity Office, 1 Ashburton Place, Room 1017, Boston, MA 02108; such participation goals shall be based on the listed services defined and required in the RFS. If the Designer is an SDO-certified MBE or WBE, the Designer must bring a reasonable amount of program participation goals for minority-owned businesses and women-owned businesses that hold the certification which is not held by the prime Designer on the project.

17.4.1 The Designer shall complete and submit at the time of contract execution a completed Participation Schedule which is attached to this contract as Attachment C in order to be in compliance with Article 17.4 above.

17.5 Accounting Requirements: The Designer shall cause to be maintained complete, accurate and detailed records of all time devoted to the Project by the Designer and each Subconsultant employed by the Designer. The Owner, the Authority, and the Commonwealth's Inspector General may at all reasonable times audit such records that directly pertain to this Contract. On a Contract where the Fee for Basic Services exceeds $100,000 the Designer shall comply with M.G.L. c.30 §39R which requires the Designer to:

17.5.1 Maintain accurate and detailed accounts for a six-year period after the final payment;

17.5.2 File with the Owner annual audited financial statements or statements from their accountants that their reviews are consistent with state laws.

17.5.3 File with the Owner a statement of management on internal accounting controls on its letterhead as prescribed in Attachment D and a statement from an independent certified public accountant (CPA) on its letterhead as prescribed in Attachment E to this Contract.

17.6 Revenue Enforcement and Protection Program (REAP): Pursuant to M.G.L. c. 62C §49A, the undersigned certifies under the penalties of perjury that to the best of his/her knowledge and belief that the firm and/or individuals in the firm are in compliance with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

17.7 Interest of Designer: The Designer hereby certifies that it is in compliance with the provisions of M.G.L. c. 268A whenever applicable. The Designer covenants that 1) neither he/she nor any member of the Designer firm presently has any financial interest and shall not acquire any such interest direct or indirect, which would conflict in any manner or degree with the services required to be performed under this Contract or which would violate M.G.L. Chapter 268A, as amended from time-to-time; 2) in the performance of this Contract, no person having any such interest shall be employed by the Designer; and 3) no partner or employee of the Designer firm is related by blood or marriage to any officer, official, or employee of the Owner.

17.8 Equal Opportunity: The Designer shall not discriminate in employment against any person on the basis of race, color, religion, national origin, sex, sexual orientation, age, genetics, ancestry, disability, marital status, veteran status, membership in the armed forces, presence of children or political beliefs. Each shall comply with all provisions of Title VII of the Civil Rights Act of 1964 and MGL c.151B.

17.9 Certification of Non-Collusion: The signatory certifies under penalties of perjury that the Designer's proposal has been made in and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

17.10 Minority and Women Workforce Participation: Pursuant to M.G.L. c. 7C, s. 6 and M.G.L. c. 149, s. 44A(2)(G) the Designer shall be required to provide regular reports of the gender and race/ethnicity of employees engaged in work under this contract, for both prime and subconsultants, in the form and format required by the District, including but not limited to, by electronic reporting through the requested means and with the frequency required by the District.

ARTICLE 18: MISCELLANEOUS

18.1 Governing Law: This Contract shall be governed by the laws of the Commonwealth of Massachusetts.

18.2 Venue: Any suit by either party arising under this Contract shall be brought only in the Superior Court in the county where the Project is located. The parties hereto waive any argument that this venue is improper or that the forum is inconvenient.

18.3 Non-Waiver: Neither the Owner's review, approval, or acceptance of, nor payment for any of the services furnished under this Contract shall be construed to operate as a waiver

of any rights under the Contract or any cause of action arising out of the performance of the Contract.

18.4 Entire Agreement: This Contract represents the entire and integrated agreement between the Owner and the Designer and, except as otherwise provided herein, supersedes all prior negotiations, representations or agreements, either written or oral. This Contract may be amended only by written agreement signed by both the Owner and the Designer, and approved by the Authority, which approval shall not unreasonably be delayed, denied, conditioned, or withheld.

18.5 Dispute Resolution: If a dispute arises between the parties related to this Contract, the parties agree to use the following procedures to resolve the dispute: (a) Negotiation. A meeting shall be held between representatives of the parties with decision-making authority regarding the dispute to attempt in good faith to negotiate a resolution of the dispute; such meeting shall be held within fourteen calendar days of a party's written request for such a meeting; (b) Mediation. If the parties fail to negotiate a resolution of the dispute, they shall submit the dispute to mediation as a condition precedent to litigation and shall bear equally the costs of the mediation. The parties shall jointly appoint a mutually acceptable mediator; they shall seek assistance from an independent third party in such appointment if they have been unable to agree upon such appointment within 30 days of the meeting just noted in (a) above; (c) Litigation. If the parties fail to resolve the dispute through mediation, then either party may file suit in accordance with Article 18.2; and (d) This Article of dispute resolution provisions shall survive termination of this Contract.

18.6 Waiver of Subrogation: (a) To the extent damages are covered by property insurance, the Owner and the Designer waive all rights against each other and against the General Contractor or CM at Risk, Subcontractors, consultants, agents, and employees of the other for damages caused by fire or other causes of loss, except such rights as they may have to the proceeds of such insurance as set forth in the Owner-Contractor Agreement or Owner CM at Risk Agreement. The Owner shall require of the General Contractor or CM at Risk, Subcontractors, Owner's Project Manager, consultants, Subconsultants, and agents and employees, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged. (b) Nothing in this Contract shall create a contractual relationship with or create a cause of action in favor of a third party against the Owner or the Designer.

ATTACHMENT A

PAYMENT SCHEDULE

Payments shall be made in accordance with the provisions outlined in the Contract and with the following schedule:

Basic Services

Feasibility Study Phase .....

Schematic Design Phase .....

Design Development Phase .....

Construction Documents Phase .....

Early Bid Packages…….

Bidding Phase.....

Construction Administration Phase .....

Completion Phase .....

TOTAL.....

Extra Services

Extra Services provided pursuant to Article 8 shall be compensated as determined by the Owner (a) by a lump sum fee agreed upon in advance in writing by the Owner and the Designer, or (b) on an hourly basis in accordance with the rate schedule set forth below for time expended, up to a not to exceed amount.

Hourly Rates:

ATTACHMENT B

REQUEST FOR DESIGNER SERVICES (RFS)

The District must use the MSBA's Designer RFS Template, which can be found here:

https://www.massschoolbuildings.org/building/team/dsp

ATTACHMENT C

PARTICIPATION SCHEDULE FOR DESIGNER CONTRACTS BY SDO CERTIFIED MINORITY/WOMEN BUSINESS ENTERPRISES

This form shall be submitted to the Owner by the Designer upon execution of the Contract for Designer Services attached hereto.

Owner _____

Project No: _____

Name of Company	Description of Work	M/WBE	Dollar Value Participation
1. _____	_____	____	$ _____
2. _____	_____	____	$ _____
3. _____	_____	____	$ _____
4. _____	_____	____	$ _____
5. _____	_____	____	$ _____
6. _____	_____	____	$ _____

Dollar Value of MBE Commitment: $ _____

Dollar Value of WBE Commitment: $ _____

Total Dollar Value Commitment: $ _____

Original Fee for Basic Services Amount $ _____

DESIGNER CERTIFICATION

The undersigned certifies under the penalties of perjury that (1) it intends to subcontract with the above listed firms for the identified work and dollar amounts and (2) certifies that he/she has read the terms and conditions of the Designer Contract with regards to MBE/WBE participation and is authorized to bind the Designer to the commitment set forth above.

Date _____

_____
Name of Architect/Engineer

_____
Authorized Signature

_____
Address

_____
City, State & Zip Code

ATTACHMENT D

M.G.L. c.30 §39R - INTERNAL ACCOUNTING CONTROLS
APPLIES TO CONTRACTS OF $100,000 OR MORE
SAMPLE LETTER TO BE PREPARED ON DESIGNER'S LETTERHEAD

Date

CEO
Owner
123 Reservoir Street
Enfield, MA 01234

RE: Enfield High School

Dear:

This Statement of Internal Accounting Controls is being submitted in accordance with Article 17.5.3 of the Contract for Design Services for the above captioned project. Please be advised that our firm, the Designer under the Contract, has a system of internal accounting controls which assures that:

1. transactions are executed in accordance with management's general and specific authorization;

2. transactions are recorded as necessary, to permit preparation of financial statements in conformity with generally accepted accounting principles, and to maintain accountability for assets;

3. access to assets is permitted only in accordance with management's general or specific authorization; and

4. the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

Sincerely,

ATTACHMENT E

MGL c.30 §39R – INTERNAL ACCOUNTING CONTROLS
APPLIES TO CONTRACTS OF $100,000 OR MORE
SAMPLE LETTER TO BE PREPARED ON CPA's LETTERHEAD

CEO
Owner
123 Reservoir Street
Enfield, MA 01234

RE:

Dear

Please be advised that we have reviewed the Statement of Internal Accounting Controls prepared by the _____ in connection with the
Name of Designer
above-captioned project. This statement is required under M.G.L. c.30 §39R. In our opinion, representations of management are consistent with our evaluations of the system of internal accounting controls. In addition, we believe that they are reasonable with respect to transactions and assets in the amount which would be material when measured in relation to the firm's financial statements.

Sincerely,

(CPA)

ATTACHMENT F

CONTRACT FOR DESIGNER SERVICES

AMENDMENT NO. _____

WHEREAS, the _____ ("Owner") and _____, (the "Designer") (collectively, the "Parties") entered into a Contract for Designer Services for the _____ Project (Project Number _____) at the _____ School on _____. "Contract"; and

WHEREAS, effective as of _____, the Parties wish to amend the Contract:

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained in this Amendment, and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. The Owner hereby authorizes the Designer to perform services for the Design Development Phase, the Construction Phases, and the Final Completion Phase of the Project, pursuant to the terms and conditions set forth in the Contract, as amended.

2. For the performance of services required under the Contract, as amended, the Designer shall be compensated by the Owner in accordance with the following Fee for Basic Services:

Fee for Basic Services:	Original Contract	After this Amendment
Feasibility Study Phase	$ _____	$ _____
Schematic Design Phase	$ _____	$ _____
Design Development Phase	$ _____	$ _____
Construction Document Phase	$ _____	$ _____
Bidding Phase	$ _____	$ _____
Construction Phase	$ _____	$ _____
Completion Phase	$ _____	$ _____
Total Fee	$ _____	$ _____

This Amendment is a result of: _____
_____
_____

3. The Construction Budget shall be as follows:

   Original Budget: $_____

   Amended Budget $_____

4. The Project Schedule shall be as follows:

   Original Schedule: $_____

   Amended Schedule $_____

5. This Amendment contains all of the terms and conditions agreed upon by the Parties as amendments to the original Contract. No other understandings or representations, oral or otherwise, regarding amendments to the original Contract shall be deemed to exist or bind the Parties, and all other terms and conditions of the Contract remain in full force and effect.

IN WITNESS WHEREOF, the Owner, with the prior approval of the Authority, and the Designer have caused this Amendment to be executed by their respective authorized officers.

OWNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date_____

DESIGNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date _____

CONTRACT FOR DESIGNER SERVICES
(BASE CONTRACT FOR DESIGN BID BUILD OR CM at RISK PROJECT)

This Contract is made as of this _____ day of _____ in the year _____between
(day) (month) (year)

the _____, _____
(Owner) (street)

_____ , Massachusetts , _____
(City) (State) (Zip Code)

hereinafter called "the Owner" and _____
(Designer)

_____

_____ , _____ , _____ , _____
(street) (city) (State) (Zip Code)

hereinafter called the "Designer" for the Designer to provide the designer services required to complete the Basic and Extra Services described herein at _____
(name/description of Project)

_____

_____

_____

The Designer is authorized to perform the services required by this Contract through the Feasibility Study Phase and, pending receipt of a written Approval to proceed from the Owner, through the Schematic Design Phase. At the Owner's option, the Designer may be authorized to perform services for subsequent design phases and/or the Construction Phases and Completion Phase, at which time a mutually agreed upon amendment to this Contract will be executed between the Owner and the Designer. If the Owner elects to construct the Project using the CM at Risk ("CM-R") construction delivery method pursuant to M.G.L. c. 149A, this Contract shall be amended using the Authority's Standard Amendment for CM-R, as it may be amended from time to time by the Authority. If the Owner elects to construct the Project using the Design-Bid-Build ("DBB") construction delivery method pursuant to M.G.L. c. 149, this Contract shall be amended using the Authority's Standard Amendment for DBB, as it may be amended from time to time by the Authority.

For the performance of the services required under this Contract for the Feasibility Study Phase and the Schematic Design Phase, and excluding those services specified under Articles 7.5, 7.6, 7.7, 7.8, 7.9, 7.10, and 8.3, the Designer shall be compensated by the Owner for Basic Services in accordance with the Payment Schedule included as Attachment A.

Designer's Project Architect/Engineer: _____

The Subconsultants to provide services, either as Basic or Extra Services, to the Designer under this contract may include the following, as identified on the RFS:

	Name of Firm	Name of Principal	MBE/ WBE
Civil Engineering			
Landscape Architecture			
Structural Engineering			
Fire Protection Engineering			
Plumbing Engineering			
HVAC Engineering			
Electrical/Lighting/			
Data/Communications			

Environmental Permitting			
Geotechnical Engineering			
Hazardous Materials			
Cost Estimating			
Kitchen/Food Service Consultant			
Laboratory Consultant			
Acoustical Consultant			
Specifications Consultant			
Library/Media/Audio Visual Consultant			
Technology Consultant			
Theatrical Consultant			
Sustainable/Green Design/Renewable Energy Consultant			
Code Consultant			
Accessibility Consultant			
Traffic Consultant			
Furniture, Fixtures and Equipment Consultant			
Site Surveying			
Security Consultant			

IN WITNESS WHEREOF, the Owner and the Designer hereby agree to the terms of the Contract and have caused this Contract to be executed by their respective authorized officers or other authorized representatives.

OWNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date_____

DESIGNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date _____

ATTACHMENT A

PAYMENT SCHEDULE

Payments shall be made in accordance with the provisions outlined in the Contract and with the following schedule:

Basic Services

Feasibility Study Phase.....

Schematic Design Phase.....

Design Development Phase.....

Construction Documents Phase.....

Early Bid Packages…….

Bidding Phase .....

Construction Administration Phase.....

Completion Phase .....

TOTAL.....

Extra Services

Extra Services provided pursuant to Article 8 shall be compensated as determined by the Owner (a) by a lump sum fee agreed upon in advance in writing by the Owner and the Designer, or (b) on an hourly basis in accordance with the rate schedule set forth below for time expended, up to a not to exceed amount.

Hourly Rates:

ATTACHMENT C

PARTICIPATION SCHEDULE FOR DESIGNER CONTRACTS BY SDO CERTIFIED MINORITY/WOMEN BUSINESS ENTERPRISES

This form shall be submitted to the Owner by the Designer upon execution of the Contract for Designer Services attached hereto.

Owner _____

Project No: _____

Name of Company	Description of Work	M/WBE	Dollar Value Participation
1._____	_____	____	$_____
2._____	_____	____	$_____
3._____	_____	____	$_____
4._____	_____	____	$_____
5._____	_____	____	$_____
6._____	_____	____	$_____

Dollar Value of MBE Commitment: $ _____

Dollar Value of WBE Commitment: $ _____

Total Dollar Value Commitment: $ _____

Original Fee for Basic Services Amount $ _____

DESIGNER CERTIFICATION

The undersigned certifies under the penalties of perjury that (1) it intends to subcontract with the above listed firms for the identified work and dollar amounts and (2) certifies that he/she has read the terms and conditions of the Designer Contract with regards to MBE/WBE participation and is authorized to bind the Designer to the commitment set forth above.

Date _____

_____
Name of Architect/Engineer

_____
Authorized Signature

_____
Address

_____
City, State & Zip Code

ATTACHMENT D

M.G.L. c.30 §39R - INTERNAL ACCOUNTING CONTROLS
APPLIES TO CONTRACTS OF $100,000 OR MORE
SAMPLE LETTER TO BE PREPARED ON DESIGNER'S LETTERHEAD

Date

CEO
Owner
123 Reservoir Street
Enfield, MA 01234

RE: Enfield High School

Dear:

This Statement of Internal Accounting Controls is being submitted in accordance with Article 17.5.3 of the Contract for Design Services for the above captioned project. Please be advised that our firm, the Designer under the Contract, has a system of internal accounting controls which assures that:

1. transactions are executed in accordance with management's general and specific authorization;

2. transactions are recorded as necessary, to permit preparation of financial statements in conformity with generally accepted accounting principles, and to maintain accountability for assets;

3. access to assets is permitted only in accordance with management's general or specific authorization; and

4. the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

Sincerely,

ATTACHMENT E

MGL c.30 §39R – INTERNAL ACCOUNTING CONTROLS
APPLIES TO CONTRACTS OF $100,000 OR MORE
SAMPLE LETTER TO BE PREPARED ON CPA's LETTERHEAD

CEO
Owner
123 Reservoir Street
Enfield, MA 01234

RE:

Dear

Please be advised that we have reviewed the Statement of Internal Accounting Controls prepared by the _____ in connection with the
Name of Designer
above-captioned project. This statement is required under M.G.L. c.30 §39R. In our opinion, representations of management are consistent with our evaluations of the system of internal accounting controls. In addition, we believe that they are reasonable with respect to transactions and assets in the amount which would be material when measured in relation to the firm's financial statements.

Sincerely,

(CPA)

ATTACHMENT F

CONTRACT FOR DESIGNER SERVICES

AMENDMENT NO. _____

WHEREAS, the _____ ("Owner") and _____, (the "Designer") (collectively, the "Parties") entered into a Contract for Designer Services for the _____ Project (Project Number _____) at the _____ School on _____. "Contract"; and

WHEREAS, effective as of _____, the Parties wish to amend the Contract:

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained in this Amendment, and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. The Owner hereby authorizes the Designer to perform services for the Design Development Phase, the Construction Phases, and the Final Completion Phase of the Project, pursuant to the terms and conditions set forth in the Contract, as amended.

2. For the performance of services required under the Contract, as amended, the Designer shall be compensated by the Owner in accordance with the following Fee for Basic Services:

Fee for Basic Services:	Original Contract	After this Amendment
Feasibility Study Phase	$ _____	$ _____
Schematic Design Phase	$ _____	$ _____
Design Development Phase	$ _____	$ _____
Construction Document Phase	$ _____	$ _____
Bidding Phase	$ _____	$ _____
Construction Phase	$ _____	$ _____
Completion Phase	$ _____	$ _____
Total Fee	$ _____	$ _____

This Amendment is a result of: _____
_____
_____

3. The Construction Budget shall be as follows:

   Original Budget: $_____

   Amended Budget $_____

4. The Project Schedule shall be as follows:

   Original Schedule: $_____

   Amended Schedule $_____

5. This Amendment contains all of the terms and conditions agreed upon by the Parties as amendments to the original Contract. No other understandings or representations, oral or otherwise, regarding amendments to the original Contract shall be deemed to exist or bind the Parties, and all other terms and conditions of the Contract remain in full force and effect.

IN WITNESS WHEREOF, the Owner, with the prior approval of the Authority, and the Designer have caused this Amendment to be executed by their respective authorized officers.

OWNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date_____

DESIGNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date _____

CONTRACT FOR DESIGNER SERVICES
(BASE CONTRACT FOR DESIGN BID BUILD OR CM at RISK PROJECT)

This Contract is made as of this _____ day of _____ in the year _____between
(day) (month) (year)
the _____, _____
(Owner) (street)
_____ , Massachusetts , _____
(City) (State) (Zip Code)
hereinafter called "the Owner" and _____
(Designer)
_____

_____ , _____ , _____ , _____
(street) (city) (State) (Zip Code)
hereinafter called the "Designer" for the Designer to provide the designer services required to complete the Basic and Extra Services described herein at _____
(name/description of Project)
_____
_____
_____

The Designer is authorized to perform the services required by this Contract through the Feasibility Study Phase and, pending receipt of a written Approval to proceed from the Owner, through the Schematic Design Phase. At the Owner's option, the Designer may be authorized to perform services for subsequent design phases and/or the Construction Phases and Completion Phase, at which time a mutually agreed upon amendment to this Contract will be executed between the Owner and the Designer. If the Owner elects to construct the Project using the CM at Risk ("CM-R") construction delivery method pursuant to M.G.L. c. 149A, this Contract shall be amended using the Authority's Standard Amendment for CM-R, as it may be amended from time to time by the Authority. If the Owner elects to construct the Project using the Design-Bid-Build ("DBB") construction delivery method pursuant to M.G.L. c. 149, this Contract shall be amended using the Authority's Standard Amendment for DBB, as it may be amended from time to time by the Authority.

For the performance of the services required under this Contract for the Feasibility Study Phase and the Schematic Design Phase, and excluding those services specified under Articles 7.5, 7.6, 7.7, 7.8, 7.9, 7.10, and 8.3, the Designer shall be compensated by the Owner for Basic Services in accordance with the Payment Schedule included as Attachment A.

Designer's Project Architect/Engineer: _____

The Subconsultants to provide services, either as Basic or Extra Services, to the Designer under this contract may include the following, as identified on the RFS:

	Name of Firm	**Name of Principal**	**MBE/ WBE**
Civil Engineering			
Landscape Architecture			
Structural Engineering			
Fire Protection Engineering			
Plumbing Engineering			
HVAC Engineering			
Electrical/Lighting/			
Data/Communications			

Environmental Permitting			
Geotechnical Engineering			
Hazardous Materials			
Cost Estimating			
Kitchen/Food Service Consultant			
Laboratory Consultant			
Acoustical Consultant			
Specifications Consultant			
Library/Media/Audio Visual Consultant			
Technology Consultant			
Theatrical Consultant			
Sustainable/Green Design/Renewable Energy Consultant			
Code Consultant			
Accessibility Consultant			
Traffic Consultant			
Furniture, Fixtures and Equipment Consultant			
Site Surveying			
Security Consultant			

IN WITNESS WHEREOF, the Owner and the Designer hereby agree to the terms of the Contract and have caused this Contract to be executed by their respective authorized officers or other authorized representatives.

OWNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date_____

DESIGNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date _____

ATTACHMENT A

PAYMENT SCHEDULE

Payments shall be made in accordance with the provisions outlined in the Contract and with the following schedule:

Basic Services

Feasibility Study Phase .....

Schematic Design Phase .....

Design Development Phase .....

Construction Documents Phase .....

Early Bid Packages…….

Bidding Phase.....

Construction Administration Phase .....

Completion Phase .....

TOTAL.....

Extra Services

Extra Services provided pursuant to Article 8 shall be compensated as determined by the Owner (a) by a lump sum fee agreed upon in advance in writing by the Owner and the Designer, or (b) on an hourly basis in accordance with the rate schedule set forth below for time expended, up to a not to exceed amount.

Hourly Rates:

ATTACHMENT C

PARTICIPATION SCHEDULE FOR DESIGNER CONTRACTS BY SDO CERTIFIED MINORITY/WOMEN BUSINESS ENTERPRISES

This form shall be submitted to the Owner by the Designer upon execution of the Contract for Designer Services attached hereto.

Owner _____

Project No: _____

Name of Company	Description of Work	M/WBE	Dollar Value Participation
1. _____	_____	____	$ _____
2. _____	_____	____	$ _____
3. _____	_____	____	$ _____
4. _____	_____	____	$ _____
5. _____	_____	____	$ _____
6. _____	_____	____	$ _____

Dollar Value of MBE Commitment: $ _____

Dollar Value of WBE Commitment: $ _____

Total Dollar Value Commitment: $ _____

Original Fee for Basic Services Amount $ _____

DESIGNER CERTIFICATION

The undersigned certifies under the penalties of perjury that (1) it intends to subcontract with the above listed firms for the identified work and dollar amounts and (2) certifies that he/she has read the terms and conditions of the Designer Contract with regards to MBE/WBE participation and is authorized to bind the Designer to the commitment set forth above.

Date _____

_____
Name of Architect/Engineer

_____
Authorized Signature

_____
Address

_____
City, State & Zip Code

ATTACHMENT D

M.G.L. c.30 §39R - INTERNAL ACCOUNTING CONTROLS
APPLIES TO CONTRACTS OF $100,000 OR MORE
SAMPLE LETTER TO BE PREPARED ON DESIGNER'S LETTERHEAD

Date

CEO
Owner
123 Reservoir Street
Enfield, MA 01234

RE: Enfield High School

Dear:

This Statement of Internal Accounting Controls is being submitted in accordance with Article 17.5.3 of the Contract for Design Services for the above captioned project. Please be advised that our firm, the Designer under the Contract, has a system of internal accounting controls which assures that:

1. transactions are executed in accordance with management's general and specific authorization;

2. transactions are recorded as necessary, to permit preparation of financial statements in conformity with generally accepted accounting principles, and to maintain accountability for assets;

3. access to assets is permitted only in accordance with management's general or specific authorization; and

4. the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action was taken with respect to any difference.

Sincerely,

ATTACHMENT E

MGL c.30 §39R – INTERNAL ACCOUNTING CONTROLS
APPLIES TO CONTRACTS OF $100,000 OR MORE
SAMPLE LETTER TO BE PREPARED ON CPA's LETTERHEAD

CEO
Owner
123 Reservoir Street
Enfield, MA 01234

RE:

Dear

Please be advised that we have reviewed the Statement of Internal Accounting Controls prepared by the _____ in connection with the
Name of Designer
above-captioned project. This statement is required under M.G.L. c.30 §39R. In our opinion, representations of management are consistent with our evaluations of the system of internal accounting controls. In addition, we believe that they are reasonable with respect to transactions and assets in the amount which would be material when measured in relation to the firm's financial statements.

Sincerely,

(CPA)

ATTACHMENT F

CONTRACT FOR DESIGNER SERVICES

AMENDMENT NO. _____

WHEREAS, the _____ ("Owner") and _____, (the "Designer") (collectively, the "Parties") entered into a Contract for Designer Services for the _____ Project (Project Number _____) at the _____ School on _____. "Contract"; and

WHEREAS, effective as of _____, the Parties wish to amend the Contract:

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained in this Amendment, and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. The Owner hereby authorizes the Designer to perform services for the Design Development Phase, the Construction Phases, and the Final Completion Phase of the Project, pursuant to the terms and conditions set forth in the Contract, as amended.

2. For the performance of services required under the Contract, as amended, the Designer shall be compensated by the Owner in accordance with the following Fee for Basic Services:

Fee for Basic Services:	Original Contract	After this Amendment
Feasibility Study Phase	$ _____	$ _____
Schematic Design Phase	$ _____	$ _____
Design Development Phase	$ _____	$ _____
Construction Document Phase	$ _____	$ _____
Bidding Phase	$ _____	$ _____
Construction Phase	$ _____	$ _____
Completion Phase	$ _____	$ _____
Total Fee	$ _____	$ _____

This Amendment is a result of: _____
_____
_____

3. The Construction Budget shall be as follows:

   Original Budget: $_____

   Amended Budget $_____

4. The Project Schedule shall be as follows:

   Original Schedule: $_____

   Amended Schedule $_____

5. This Amendment contains all of the terms and conditions agreed upon by the Parties as amendments to the original Contract. No other understandings or representations, oral or otherwise, regarding amendments to the original Contract shall be deemed to exist or bind the Parties, and all other terms and conditions of the Contract remain in full force and effect.

IN WITNESS WHEREOF, the Owner, with the prior approval of the Authority, and the Designer have caused this Amendment to be executed by their respective authorized officers.

OWNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date_____

DESIGNER

_____
(print name)

_____
(print title)

By _____
(signature)

Date _____

7.5 CM at Risk Construction Delivery Method

7.5.1 CM at Risk Prequalification & Selection

(a) The Designer shall participate as a member of the Owner's CM at Risk Prequalification Committee and CM at Risk Selection Committee pursuant to M.G.L. c. 149A, §§ 5 & 6.

(b) The Designer shall, when authorized by the Owner, prepare for reproduction and distribution all project design documents, that are required for the solicitation and receipt of qualifications and proposals from CM at Risk firms pursuant to M.G.L. c. 149A, §§ 5(b) & 6(a). The Designer shall prepare all addenda (to include questions from CM at Risk firms and Designer responses), subject to the approval of the Owner. The Designer shall attend a pre-proposal conference, and existing site and building tour if either or both are to be scheduled, taking note of all questions asked. Relevant questions submitted in writing shall be answered by the Designer in conjunction with the OPM by means of written addenda to the RFQ or RFP described below, as required.

(c) As a member of the Owner's CM at Risk prequalification committee, the Designer shall review and evaluate in conjunction with the Prequalification Committee, the Statements of Qualifications received from CM at Risk firms on the basis of the evaluation criteria established in the RFQ and shall make appropriate recommendations regarding the selection of qualified CM at Risk firms to receive a request for proposals from the Owner in accordance with the provisions of M.G.L. c. 149A, § 5(f).

(d) As a member of the Owner's CM at Risk selection committee, the Designer shall review and evaluate the RFP's received from prequalified CM at Risk firms on the basis of the evaluation criteria included in the RFP. The Designer shall make appropriate recommendations regarding the evaluation and ranking of RFP's and the conducting of interviews, if any, in accordance with the provisions of M.G.L. c. 149A, § 6(d), and the applicable regulations and procedures promulgated by the Inspector General. If the Selection Committee elects to conduct interviews of the CM at Risk firms, the Designer shall participate in conducting interviews.

(e) As member of the Owner's CM at Risk Selection Committee, the Designer shall assist the CM at Risk Selection Committee in non-fee negotiations with the CM at Risk until the Selection Committee has reached an acceptable contract with one of the prequalified CM at Risk firms in accordance with M.G.L. c. 149A § 6(e).

(f) If, at any time, the Owner terminates the Owner-CM at Risk contract, the Designer shall continue to provide the Designer Services required under this Contract with

any substitute CM at Risk procured by the Owner. If, as provided by law, the Owner elects to proceed with the Project pursuant to the provisions of M.G.L. c. 149 (design-bid-build), the Designer may continue to provide Designer Services pursuant to a mutually agreeable amendment to this Contract subject to the approval of the Authority.

7.5.2 Design Review for the CM at Risk Construction Delivery Method

(a) The Designer shall provide Designer Services in a manner consistent with the CM at Risk Delivery Method, as defined herein, in all Phases of the Project and shall work cooperatively with the CM at Risk, as well as the Owner, OPM, Commissioning Consultant and the Authority to achieve timely completion of the Project within the Project Construction Budget.

(b) Upon execution of the Owner-CM at Risk Agreement, the Designer shall:

1. meet with the Owner, the OPM and the CM at Risk to discuss issues and to establish procedures for efficient interaction in a cooperative and mutually supportive manner that will permit all parties to perform their contractual obligations. These procedures shall include, but not be limited to: arrangements for the collaboration and coordination between the Designer and the CM at Risk in the preparation and submission of all design phase documents to the Owner; arrangements for discussions concerning all design phase document submittals among the Owner, OPM, CM at Risk and Designer; and arrangements for frequent and productive interactions between the Owner, OPM, CM at Risk and Designer during all the design phases.

2. provide copies of the schematic design drawings, specifications, cost estimates and other submittals to the CM at Risk, to assist the CM at Risk in fulfilling its responsibilities to the Owner. The Designer shall consult with the CM at Risk and provide the CM at Risk with an opportunity to review and comment upon deliverables developed by the Designer during the Schematic Design Phase.

(c) The Designer shall attend and participate in meetings as necessary with the CM at Risk, the Owner and the OPM to resolve all issues.

(d) The Designer shall consult with the Owner, the OPM, and the CM at Risk regarding the sequence of delivery of design services; the selection of materials, building systems and equipment; alternative solutions recommended by the CM at Risk when design details affect construction feasibility, schedules, cost or quality; other value engineering comments and recommendations made by the CM at Risk; comments and recommendations concerning the design documents with respect to clarity, consistency, constructability,

maintainability/operability and coordination among the trades, coordination between the specifications and drawings, compliance with M.G.L. c. 149A for procurement, installation and construction, and sequence of construction, including recommendations designed to minimize adverse effects of labor or material shortages.

(e) The Designer may be required, as a part of Basic Services if previously agreed with the Owner, to prepare plans and specifications for discrete portions of the Work that can be incorporated into separate bid packages for the various Subcontractors who will construct the Project. Such contracts may be awarded concurrently with other contracts or individually, or at different points in time, which may result in the Designer completing portions of the design after commencement of construction of the Project and/or providing Construction Phase services before completion of all design phase services. The design for each separate bid package shall separately be subject to all requirements applicable to the various phases set forth in this Contract and shall be performed in a manner consistent with the provisions of the Project Funding Agreement, including, but not limited to, the Project Construction Budget and Project Schedule.

(f) The Designer shall consult with the CM at Risk concerning the ordering and delivery of products and assemblies and shall identify and describe any long lead products or assemblies that need to be priced and pre-ordered to meet the Project Schedule.

(g) The Designer shall identify and describe any multiple bid packages or fast-tracked construction that will be used and any separate bid packages that will be required.

7.6 Design Development Phase

7.6.1 The Designer shall provide the CM at Risk with an opportunity to review and comment upon design documents developed by the Designer during the Design Development Phase. The Designer shall work cooperatively with the CM at Risk throughout the Design Development Phase of the Project to obtain the benefit of the knowledge and experience of the CM at Risk with respect to design review, value engineering, constructability analysis, cost estimating, cost control, scheduling, coordination of bid packages, phasing, and other services and, with the approval of the Owner, the Designer shall thereupon incorporate recommended and mutually accepted changes into its design documents.

7.6.2 Upon receipt of an Approval to proceed to the Design Development Phase, the Designer shall meet regularly and as necessary with the Owner, the OPM, the CM at Risk and the Authority. This shall include meeting at least once every other week with the Owner, the OPM and the CM at Risk during this Phase.

7.6.3 Upon receipt of an Approval to proceed to the Design Development Phase, the Designer shall update and refine items submitted during the Schematic Design Phase, and shall submit to the Owner, CM at Risk, and the Authority, on or before the date specified in the Project Schedule, and on the basis of the approved Schematic Design Phase Documents, the following deliverables as they are defined in this Article 7.6.3 and as they are further defined in Articles 7.6.4, 7.6.5, 7.6.6, 7.6.7, and 7.6.8:

(a) a list of all filings and permits within Designer's scope of services and professional expertise required to implement the design and a schedule of target dates for the procurement of such permits, which list and schedule shall be regularly updated during the term of this Contract;

(b) information and documentation within the technical expertise of the Designer and that is necessary for the Owner to file local basic zoning and environmental permits. The Designer, as Extra Services, shall provide information and documentation for the Owner to file Environmental Notification Forms, Environmental Impact Reports, and any other filings for permits that must be filed during the design development phase;

(c) soils exploration data, geotechnical and geoenvironmental reports, showing exploratory locations relative to siting of proposed structures;

(d) complete design development drawings; outline specifications indicating any filed sub-bid sections and sub-sub trades based on the cost of the work and other documents necessary to specify the size and character of the Project as to siting, landscape, architectural, structural, fire protection, plumbing, heating, ventilating and air conditioning, electrical, ADA/MAAB, product requirements, and other features;

(e) quality control documentation demonstrating, without limitation, coordination of: ceiling clearances, mechanical room size, and shaft sizes; specifications and drawings; filed sub-bid work or sections; scheduling; equipment and power; existing and new construction; and phasing;

(f) design development drawings which the Designer shall submit for review to the local building official;

(g) a life cycle cost analysis to determine which design decisions related to all energy and water consuming devices and overall building operation and maintenance are the most cost effective [M.G.L. c. 149, s. 44M];

(h) a construction cost estimate for the design in Uniformat II Level 3 format, with unit rates and quantities supporting each item and reconciled with the detailed construction cost estimate and any updated cost estimates in accordance with Article 7.6.7. The estimate cost shall be projected, to the mid point of the construction period;

(i) a space measurement analysis for the design verifying that the sum of all program areas in the Project plus all other floor areas in the Project equals the gross floor area of the Project;

(j) a written summary or summaries comparing the project design, as represented in the design development drawings, specifications and cost estimates with the Final Design Program requirements, and explaining any deviations in writing.

7.6.4 Design Development Drawing Requirements: The Design Development drawings shall illustrate and describe the refinement of the design of the Project to a level of detail that is customary and standard, establishing the scope, relationships, forms, size and appearance of the Project by means of plans, sections and elevations, typical construction details, and equipment layouts. Drawings shall delineate locations and elements of Work which may be proposed to be assigned to project construction phases and/or separate bidding packages. Documents shall include, but not be limited to, the following:

(a) Site and utility drawings showing;

1. Existing and proposed contours and locations of the proposed building or addition(s). Show entry level elevation and key exterior grades at perimeter. Indicate all retaining walls. Include benchmarks of site if survey is available.
2. All utilities existing and proposed, indicating location, elevation, composition and size e.g., manholes, sewers, hydrants, light standards. Include work by others, e.g., gas and electric utility providers.
3. Roads, laid out parking areas, walks, recreation areas, terraces and other site improvements.
4. Building locations fixed and referenced from main survey baseline, if available.
5. Plant materials with preliminary schedule.

(b) Building drawings and other graphic and written requirements with floor plans showing: (minimum scale 1/8" = 1'0");

1. building perimeter with exterior wall thicknesses and overall dimensions;
2. structural grid;
3. plan requirements of mechanical and electrical systems;
4. building core; elevators, stairs, shafts, toilet rooms;
5. interior partitions; appropriate thicknesses and dimensions to fix basic organizations; indicate fire separations, ratings;
6. door swings;
7. floor elevations;

8. built-in furniture and equipment; and
9. furniture layout concept drawings.

(c) Roof plans showing:

1. proposed systems type;
2. pitch and drainage patterns;
3. roof drains, gutters and scuppers;
4. skylights, stairs through roof, penthouses, major equipment, chimneys.

(d) Building sections: One transverse and one longitudinal section. Indicate floor to ceiling heights and floor-to-floor heights. Label all spaces;

(e) Building elevations showing:

1. full height elevations including roof structures, e.g., mechanical equipment, chimneys, and penthouses;
2. floor elevations, floor-to-floor heights, and overall height related to benchmarks on site plans;
3. all fenestration;
4. column centerlines;
5. principal finish materials indicating major control and expansion joints, and divisions of materials where required;
6. louver and equipment enclosure systems; and
7. exterior grades and topographical features in context.

(f) Full height wall sections for main elevations and at special conditions. Show foundation and perimeter treatment, wall construction including insulation and supporting structure, fenestration and mechanical penetrations, and floor construction;

(g) Interior elevations: Major spaces, e.g. library, lobby; and all typical spaces, e.g. classrooms;

(h) Reflected ceiling plans: show prototypical structural, fire protection, mechanical and electrical information for classrooms and major spaces, including lighting layouts with ceiling heights and material changes;

(i) Colored interior elevations and perspectives of major and typical spaces;

(j) Schedules:

1. finish schedule by room types;
2. door schedule by room;
3. window schedule;

4. equipment schedules, e.g., food service, instructional media.

(k) Structural Concepts:

1. Foundation plan showing sizes and locations of typical components.
2. Framing plans: typical floor framing, roof framing, special framing, show framing at major openings and sizes of members.
3. Column locations.
4. Preliminary details including floor and roof deck, statements as to methods of lateral bracing and how requirements of earthquake code will be met.
5. Details for special and/or incidental structural features, e.g. tunnels, connecting bridges and unique architectural features.
6. Connection to existing buildings at foundation and at key points at existing structure if applicable.

(l) Fire Protection: floor plans indicating wet or dry type systems, hose racks or cabinets and fire department tie-ins. Indicate whether a fire pump will be required and, if so, show location within the building. Show typical sprinkler head layout;

(m) Plumbing and sanitary systems: floor plans indicating locations of all plumbing fixtures and special features, and approximate location and size of all piping systems and principal items of equipment;

(n) Heating, Ventilating and Air Conditioning Systems;

1. Show locations and approximate sizes of piping systems, air handling systems and principal items of equipment such as compressors or cooling towers.
2. Indicate space requirements of major equipment and their location in mechanical rooms and fan rooms. Major shafts.

(o) Electrical Systems;

1. Calculations showing total electrical load.
2. All services including those for special purposes shall be located and indicated.
3. Lighting shall be indicated as to type, location and intensities in foot-candles for each special and typical space.
4. Switchgear and emergency generator.
5. Fire alarm system drawings showing all initiation and signaling devices, control panels, annunciator panels, etc.
6. Security system drawings.
7. Communications drawings showing chases, major equipment locations and any special distribution requirements.

8. CATV/CCTV drawings showing chases, major equipment locations and any special distribution requirements.
9. Information Technology drawings showing chases, major equipment locations and any special distribution requirements.

7.6.5 Other Consultant's Drawings and Other Graphic and Written Requirements: For special consultants, e.g., kitchen, elevator, library, media room, equipment where appropriate, provide drawings that locate and define the scope of the work. Coordinate with other disciplines. Provide cuts of all major pieces of equipment.

7.6.6 Project Manual Requirements (Specifications):

(a) Outline Specifications that are to accompany Design Development Drawings shall be prepared to a level of detail that is standard and customary and shall include, but not be limited to, a comprehensive description of the Project and the materials proposed for use in the work. No detailed specifications of materials or workmanship procedures need be included; however, the general scope shall be indicated by CSI MasterFormat as applicable to proposed construction.

1. The Design Development Outline Specification shall also include a comprehensive "BASIS OF DESIGN." The "BASIS OF DESIGN" shall be a narrative description of the Project and shall include all applicable architectural, civil, structural, mechanical and electrical programs and/or systems. Identify all proposed filed sub-bid categories.
2. Project Manual shall include a statement to define Work which is proposed to be included in separate construction phases and/or bid packages.

(b) The following is a list of items that shall at a minimum be identified or outlined in this Phase.

1. Site work; clearing, drives, walks, parking areas, fences, excavation, backfill, planting.
2. Footings; on earth, rock, piles, caissons, proposed bearing pressures, boring logs.
3. Foundation walls; type of concrete, reinforcing, type and extent of waterproofing.
4. Footing drains; type, disposal of drainage.
5. Exterior walls: superstructure, type, materials, brick type, alternate cladding, back-up materials, dampproofing material and extent, special features.
6. Roofs; types, vapor barrier, insulation, flashings, all materials.
7. Flashings; general types, all materials, weights, where each type is to be used.
8. Sheet metal; gutters, leaders, others uses, except flashings.
9. Windows; general types, materials, sub-frames, finish, glazing, screens.

10. Doors, exterior and interior; types.
11. Steps, exterior; including platforms and landings' materials.
12. Stairs, interior; including platforms, landings, walls, materials and finishes.
13. Framing; wood, concrete or metal systems in accordance with general design.
14. Partition construction related to room type;
15. Cabinet and casework; types and materials.
16. Food Service Equipment; types and materials.
17. Furring; lathing, plastering, materials and locations.
18. Insulation thermal; types, thicknesses, methods of application and locations.
19. Acoustical treatments; types, thicknesses, methods of application and location.
20. Interior finishes; materials for floors, walls, bases, wainscots, trim, ceilings, ceiling heights.
21. Fire Protection; standpipe systems, sprinkler systems, fire pumps and accessories.
22. Water supply; source; location of main to which connection will be made; type of pipe for service main; load requirements; load factors and pressures.
23. Sanitary sewers; sewage disposal system, pipe and other materials.
24. Storm sewers; storm drainage disposal system (institution or local facility), pipe and other materials.
25. Gas main; material, size, location. Interface with utility company.
26. Plumbing; systems such as wastes, vents, hot water, cold water, gas, air, oxygen, vacuum, main source of supply, materials for each, water heaters, pumps, thermal insulation fixture quality, all special features.
27. Heating, ventilating and air conditioning; type of heating and refrigeration plants, type and capacity of boilers and cooling equipment, fuel, type of burners, fuel storage, heaters, feed water pumps and heaters, thermal insulation, type of heating medium, supply and return piping, radiation, unit heaters, radiant heating, principal air conditioning equipment types, special features, supply, return and exhaust ductwork.
28. Electric work; service connection, location, institution or public utility, overhead or underground, transformers including type and location, types of conduit and wiring, types of fixtures, location of main switchboard, radio, fire alarm, telephone, public address, emergency lighting and wiring, emergency or other generators, special features, including Master TV, information retrieval and/or data processing system.

29. Elevators, dumbwaiters and platform lifts; capacities, speed, travel in feet, landings, operation, controls, platform sizes, machine type and location, car and entrance finishes, signals.

30. Other built-in equipment, types and materials.

31. Special features.

7.6.7 Construction Cost Estimate Requirements – The Designer shall provide a construction cost estimate in Uniformat II Level 3 format with aggregated unit rates and quantities supporting each item referenced in Article 7.6.6(b). The estimate cost shall be projected, to the mid point of the construction period.

The Designer shall review its construction cost estimate in comparison with the detailed construction cost estimate, and any updated cost estimates, provided by the CM at Risk and/or OPM and shall work in good faith and in cooperation and coordination with the CM at Risk and/or OPM to reconcile any differences between the construction cost estimates, to clarify assumptions upon which the cost estimates are based and to address any concerns or questions with the cost estimates that are raised by the Owner, the OPM, the CM at Risk, or the Authority. If the Designer is unable to reconcile all differences between the two construction cost estimates with the CM at Risk, then the Designer shall provide a detailed explanation of the differences to the Owner. If, in any case, the agreed-upon, reconciled construction cost estimate exceeds the Project Construction Budget, the Designer shall cooperate with the Owner, the OPM, and the CM at Risk in identifying, specifying and recommending changes in materials, equipment, component systems and types of construction, or other adjustments in the scope or materials selections for the Project, including contingencies or alternative bid items, so as to facilitate revision of the design of the Project to reduce the cost of construction so as to comply with the authorized Project Construction Budget.

Cost estimate data shall be organized to identify elements of project work which may be proposed to be advanced under separate construction phases and/or separate bidding packages. When so proposed, estimates shall develop cost data relative to corresponding bidding and work execution dates established in project schedules.

7.6.8 Reports, drawings, specifications, cost estimates and other design development submittals shall be subject to the written approval of the Owner and the Authority. Unless a lesser number is requested by the Owner, the Designer shall submit to the Owner for approval six (6) copies of Design Development drawings, specifications, cost estimates, and other submittals. Two (2) copies shall be submitted to the Authority by the Designer. The Designer submit to the CM at Risk one copy (1) of Design Development drawings, specifications, cost estimates and other submittals to assist the CM at Risk in fulfilling its responsibilities to the Owner.

7.6.9 The Designer shall present and explain the Design Development submittal to the Owner and the Authority and at a local public meeting scheduled by the Owner, if any such meeting is scheduled or in conference.

7.6.10 The Designer and its Subconsultants shall collaborate with the Authority's Commissioning Consultant to develop design criteria which will support the purposes of building commissioning and energy/resources conservation concepts as commonly understood and as prescribed by the Commissioning Consultant.

7.7 Construction Documents Phase:

In addition to the requirements specified in the RFS (Attachment B), upon receipt of an Approval to proceed with the Construction Documents Phase of the Project from the Owner, the Designer shall do the following:

7.7.1 The Designer shall provide the CM at Risk with an opportunity to review and comment upon design documents developed by the Designer during the Construction Documents Phase. The Designer shall work cooperatively with the CM at Risk throughout the Construction Documents Phase of the Project to obtain the benefit of the knowledge and experience of the CM at Risk with respect to design review, value engineering, constructability analysis, cost estimating, cost control, scheduling, coordination of bid packages, phasing, and other services and, with the approval of the Owner, the Designer shall thereupon incorporate recommended and mutually accepted changes into its design documents.

7.7.2 The Designer shall meet regularly and as necessary with the Owner, the Authority, the OPM, the CM at Risk and the Commissioning Consultant. This shall include meeting with the Owner at least twice per month (or more frequently if needed) during this Phase.

7.7.3 Based on the submittals approved in the Design Development Phase of the Project, the Designer shall update and refine the items previously submitted and shall submit the following to the Owner, the CM at Risk, and the Authority on or before the date and time specified in the Project Schedule:

(a) Construction documents progress submittals as follows:

1. a 60% Construction Documents Submittal, with deliverables as defined in Article 7.7.4;
2. a 90% Construction Documents Submittal, with deliverables as defined in Article 7.7.5;
3. a Final Construction Documents Submittal, with deliverables as defined in Article 7.7.6;
4. a Bid Documents Submittal, with deliverables as defined in Article 7.7.7

(b) As a part of each of the submittals required under Articles 7.7.4, 7.7.5, and 7.7.6, an updated work plan and recommended updates for incorporation into the Project Schedule by the OPM;

(c) As a part of each of the submittals required under Articles 7.7.4, 7.7.5, and 7.7.6, a report on the status of environmental, zoning, planning, building code, and ADA/MAAB approvals and permitting processes and a certified list of all required testing and all required permits identified in 7.6.3 (a).

(d) All submittals by the Designer shall be subject to the written approval of the Owner, which approval shall not be unreasonably delayed, withheld, conditioned, or denied. Unless a lesser number is requested by the Owner or is specifically provided hereinafter, the Designer shall furnish to the Owner for approval six (6) sets of the drawings, specifications, construction cost estimates and all other submittals. Unless a lesser number is specifically provided hereinafter, the Designer shall furnish two (2) sets of said drawings, specifications, construction cost estimates and all other submittals to the Authority and shall furnish one (1) set thereof to the CM at Risk. The Designer shall also furnish to the Owner, the Authority, and the CM at Risk electronic media copies of the foregoing drawings and documents in such form as may be required by the Authority.

7.7.4 The 60 Percent Construction Documents Submittal:

(a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a 60 % Construction Documents Submittal (60% CD Submittal), which shall include:

1. Construction Documents and other deliverables, as defined in this Article 7.7.4 and as further defined in Articles 7.7.3, 7.7.8, 7.7.9, and 7.7.10, advanced to a level of intermediate (60 percent) completion, and incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.

2. In instances where the Designer takes exception to the Authority's previous review comments on the Design Development submittal, a written statement explaining its position.

3. The Basis of Design that accompanied the Outline Specifications in the Design Development Phase shall be updated and expanded to include all proposed architectural, structural, fire protection, plumbing, mechanical, electrical, civil, and landscape design concepts for the Project.

4. A space summary, in the form and format prescribed by the Authority, that sets forth the current space calculations and totals and certifies that said space calculations and totals are in compliance with those previously authorized by the Authority in the Project Funding Agreement.

5. Keying of graphics shall be sufficient to allow a reviewer to make his or her way through the set.

6. A list of all drawings related to the Project.

7. A materials selection statement identifying typical interior and exterior surfaces and their materials.

8. A color theory statement indicating proposed paint colors and material selections for typical and special spaces and why they have been selected and how these selections relate to surrounding materials and colors.

9. Large scale plans of all mechanical and electrical spaces with major equipment indicated.

10. Project Manual, including all sections to be included in final technical specifications, developed to include a list of all materials in the building with their manufacturers. Identify all specifications sections which need to be filed sub-bid.

11. Identify all proposed bid alternates by inclusion in a project manual section to be titled "Alternates." Alternates shall be listed in sequence as approved by the Owner. Work required under bid alternates shall be described and/or drawn, as appropriate, to clearly define the design criteria and extent of work involved for implementation of the bid alternate. In each instance, the existing conditions and/or new design criteria for base bid work shall also be described and indicated in documents.

12. Code analysis: Provide a building code analysis. Any deviation from methods of compliance described in earlier submittals shall be indicated. Code analysis shall identify its preparer, code edition referenced, and include a comprehensive description of operative building code provisions, with floor plans showing fire separation types, area calculations, egress capacity for exits and exitways, and any special features required to comply.

(b) As a requirement of the 60% CD Submittal, and in accordance with the provisions of this paragraph and Article 7.7.10, the Designer shall provide a construction cost estimate prepared using the Uniformat II Classification to Level 3, the CSI MasterFormat 6-digit format to Level 3 and MGL c.149 §44F (filed sub-bid) format including quantities of all materials and unit prices of labor, equipment, and materials as well as a cost estimate for each item of work, for review by the Owner, the CM at Risk and Authority. The Designer shall submit said construction cost estimate separately, as a supplement to the 60% CD

Submittal, no later than twenty-one days after the submission of the 60% CD Submittal described in Article 7.7.4(a). The development of said construction cost estimate shall under no circumstances delay the timely submission of the remainder of the 60% CD Submittal.

7.7.5 The 90 Percent Construction Documents Submittal:

(a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a 90 % Construction Documents Submittal (90% CD Submittal), which shall include:

1. Construction documents and other deliverables as defined in this Article 7.7.5 and as further defined in Articles 7.7.3, 7.7.8, 7.7.9, and 7.7.10, advanced to a level of substantial (90 percent) completion, and incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.

2. A space summary, in the form and format prescribed by the Authority, that sets forth the current space calculations and totals and certifies that said space calculations and totals are in compliance with those authorized by the Authority in the Project Funding Agreement.

3. Interior Materials Color Boards, including samples of principal interior materials, labeled and mounted to indicate locations.

4. Final structural and energy design calculations.

5. A statement confirming that the Owner has been provided with structural design drawings, specifications, and calculations sufficient to enable execution of an independent structural peer review process, as defined in the Massachusetts Building Code, as amended (this requirement is applicable, to satisfy Authority requirements for all school construction projects having a floor area in excess of 10,000 square feet). The Designer shall have advised the Owner of this requirement in writing not less than sixty (60) days prior to delivery of the 90% CD Submittal in order for the Owner to arrange for the services of an Independent Structural Peer Reviewer. Upon reaching 90 percent completion of construction documents, Designer's structural engineering consultant shall have reached a level of 100 percent completion of its construction documents to enable advancement of the independent structural peer review.

6. The Designer and its consultants shall fully cooperate with the Independent Structural Peer Reviewer in the process. The Designer shall obtain a copy of the Independent Structural Engineering Review report and submit same to the

Owner and the Authority at the time of completion of the remainder of the construction documents at the level of final completion.

7. In instances where the Designer takes exception to any of the Authority's 60% CD Submittal review comments, a written position statement explaining the Designer's position on its exceptions to said review comments.

7.7.6 Final Construction Documents Submittal:

(a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a Final Construction Documents Submittal, which shall include:

1. Construction documents and other deliverables as defined in this Article 7.7.6 and as further defined in Articles 7.7.3, 7.7.8, 7.7.9, and 7.7.10, advanced to a level of final (100 percent) completion, and incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.

2. a final construction cost estimate, in accordance with the provisions of this paragraph and Article 7.7.10, based on 90% Construction Documents, including cost estimates for general conditions, overhead and profit, insurance, bonds, and all other items; and allowances expressed as percentage rates for design contingencies and construction contingencies and escalation to the bid date; and other mutually agreed upon contingencies. The final construction cost estimate shall be prepared in Uniformat II Elemental Classification to Level 3 (Sections A-G inclusive), the CSI MasterFormat to Level 3 and M.G.L. c.149, §44F (filed sub-bid) format and shall be complete with a single line description for each item with the detailed unit rate or item cost buildup provided in each case.

3. complete construction drawings and specifications, certified by the Designer as having satisfied the firm's quality control review process as previously confirmed with the Owner, in sufficient detail to permit fixed-price bids in open competition for construction of the Project when documents have been approved for issuance for bidding.

4. no later than at the 100% stage of completion of the final drawings and specifications, two sets of the final drawings and specifications that shall be provided to the local building official to be signed and stamped "Approved" by the local building official; two sets of plumbing drawings and specifications that shall be provided to the local plumbing inspector to be signed and stamped "Approved" by the local plumbing inspector; two sets of the fire protection, HVAC, and electrical construction documents that shall be provided to the local fire official to be signed and stamped "Approved" by the local fire official; two sets of the electrical construction documents that shall

be provided to the local electrical inspector to be signed and stamped "Approved" by the local electrical inspector. Notwithstanding the foregoing, the Owner acknowledges that building officials, department inspectors, and fire officials have varying policies on approvals and submittal procedures, and the only obligation of the Designer in this regard is to promptly make the submittals described herein and assist the Owner or CM at Risk in receiving the approvals to the extent available.

5. at the 100 percent stage of completion of final drawings and specifications, a written summary comparing the final construction drawings and specifications and final estimated construction cost with the Final Design Program requirements and submittals made during the Design Development Phase and earlier in the Construction Documents Phase, explaining any significant deviations.

6. In instances where the Designer takes exception to any of the Authority's 90% CD Submittal review comments, a written position statement explaining the Designer's position on its exceptions to said review comments.

7. The Independent Structural Engineering Peer Review Report obtained from the Independent Structural Engineering Peer Reviewer referenced in Article 7.7.5(a)5. The Designer shall include a certification statement from the project structural engineer designer of record to acknowledge receipt of the Report and to indicate response actions pursuant thereto. The Designer shall also forward a copy of said Report to the Building Inspector

8. A certification that all applicable local, state and utility officials have been contacted by the Designer regarding each utility connection and that the persons responsible for permits or connection approval have agreed to the systems' use.

7.7.7 Bid Documents Submittal:

(a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a Bid Documents Submittal which shall include:

1. Construction documents and other deliverables as defined in this Article 7.7.7 and as further defined in Articles 7.7.3, 7.7.8, and 7.7.9, incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.

2. From the construction drawings and specifications approved by the Owner, incorporating such changes as the Owner or the Authority requires, a set of reproducible black and white drawings and original specifications on high quality white bond paper, single-sided, properly packaged, suitable for

reproduction, stamped and signed by all disciplines, that shall be prepared by the Designer and transmitted to the Owner; which documents shall become the property of the Owner as provided under Article 16. Other suitable reproducible media, having the same content shall be substituted, when so directed or authorized by the Owner.

3. Upon receipt of Owner authorization to advance to reproduction the approved documents for distribution to bidders and, upon reproduction thereof, the Designer shall promptly submit complete sets of bid documents to the Owner (two sets), the CM at Risk (one set) and the Authority (one set - half size for Drawings). Any subsequent addenda shall be promptly submitted to the Owner, the CM at Risk, and the Authority.

7.7.8 Drawing Requirements:

The documents prepared during the Construction Documents Phase shall set forth the requirements for construction of the Project to a level of detail that is customary and standard and shall include, but not be limited to:

(a) General information showing drawing index, symbols, abbreviations, notes, location map.

(b) Site drawings shall be complete to define the extent and detail of site work. Show the following:

1. Layout and location of all proposed work including buildings, structures, retaining walls, parking, walls and all other site improvements, with details.
2. Existing and proposed grades and contours including floor elevations, existing structures and topography, survey base line, bench marks and boring locations.
3. Landscaping and planting.
4. All utility service lines, systems and structures for electricity, gas, oil, water, steam, telephone, CATV, fire alarm, sanitary and storm drainage including size, composition, grades and directions of flow.
5. Contract Limit Line and Storage Area for construction materials.
6. All existing foundations, obstructions and other physical characteristics of the site which may affect the construction work.
7. Site survey.
8. Cuts of benches, light standards.

(c) Demolition drawings and temporary work required.

(d) Architectural drawings shall include at a minimum:

1. Floor plans of each floor, including basement and lofts or attic with room and corridor dimensions, wall thicknesses, column locations, floor elevations, mechanical and electrical openings, door and window designations, partition types, floor materials, built in furniture and equipment, keyed to other architectural drawings. All rooms numbered.
2. Large scale floor plans where required to illustrate detailed requirements of rooms.
3. Large scale plans showing key areas e.g. lobby, special spaces. Indicate surface materials. (minimum scale ¼" = 1'- 0")
4. Roof plans showing openings, drainage, slopes, expansion joints and all projections, including equipment.
5. Key plans on all floor plans and section drawings, where appropriate.
6. Building Sections as required to show spatial organization of building but no less than one longitudinal and one transverse.
7. Building elevations. All building elevations shall be fully developed, and hidden elevations shall be shown. Elevations shall be shown in a sequence as unfolded from a certain point.
8. Full height wall sections indicating dimensions, flashing, anchorage, reinforcing, coursing, cladding, and all other conditions at wall, roof, foundation, interior floors.
9. Exterior details, for roofing, flashing, expansion control and construction joints, waterstops and other details showing all conditions both vertical and horizontal, including schedules.
10. Door, window, entrance, and storefront, schedules, and details.
11. Vertical circulation plans, sections and details including stairs, elevators, conveyors, dumbwaiters.
12. Interior elevations of all significant and typical spaces.
13. Interior details including casework, paneling surfacing and acoustical treatment.
14. Reflected ceiling plans coordinated with fire protection, mechanical and electrical drawings, and ceiling details.
15. Schedules (clearly define new or existing)
    a. Doors
    b. Equipment, e.g. for services
    c. Partitions
    d. Finishes

(e) Structural drawings shall indicate the following:

1. Indicate or refer to location of geotechnical exploration data and reports related thereto.
2. Foundation plans with bottom grades showing layout of all footings, walls, slabs on grade including reinforcing, grade beams, and columns; include design soil bearing pressures and live loads.

3. Floor and roof plans of structural systems including framing, grades of finished floors and depressed areas, with locations and dimensions for all openings. Also indicate design floor loads.
4. Complete foundation wall elevation and typical sections, with reinforcing indicating location, dimensions and grades for all footings, steps and wall openings.
5. Complete details and sections with dimensions for all construction including expansion and construction joints, reinforcing and other embedded items.
6. Schedules (with dimensions) for all lintels, beams, joists, and columns.
7. Unless detailed on the Drawings, the following information shall appear in the general notes: class and 28 day strength of concrete for each portion, structural steel and concrete reinforcing design stresses for each type of structural member, concrete cover for each type of structural member, shrinkage and temperature steel requirements, reinforcing laps for main reinforcing and temperature steel; bendpoint, cutoff, and hook locations for all members, minimum beam and lintel bearing. Reinforcing steel fabrication shall be in accordance with most recent ACI, "Manual of Standard Practice for Detailing Reinforced Concrete." Structural steel fabrication shall be in accordance with the AISC "Manual of Steel Construction."

(f) Fire protection drawings shall indicate standpipe systems, sprinkler systems, suppression systems, access panels, fire pumps, accessories, and piping. All piping, equipment, fixtures and devices shall be located and sized. Design criteria shall be provided on the drawings in accordance with NFPA requirements.

1. Fire protection work, other than site work, shall not be combined on the same sheets with the Plumbing, HVAC, Electrical, or other drawings except with the prior approval of the Owner.

(g) Plumbing drawings shall indicate the following:

1. All work done by the Plumbing Subcontractor, which includes all water, gas, air, vacuum, medical gases, sanitary and storm wastes, and accessories. Include foundation drain lines unless established as the work of the CM at Risk and shall not be indicated on the Plumbing Drawings. Site utilities shall be indicated on the utility drawings.
2. Plumbing work, other than site work, shall not be combined on the same sheets with the Fire Protection, HVAC, Electrical, or other drawings except with the prior approval of the Owner.
3. Trapping and venting of all plumbing fixtures including floor drains.
4. Water and gas supply sources, storm and sanitary discharge mains.
5. All piping shall be carefully sized and all sizes shall be indicated on drawings and riser diagrams. Indicate all directions of flow and pitch on piping.

6. All accessories, valves, fixtures including all drinking fountains, grease traps for kitchen waste and all necessary panels, identified as to type and size.
7. All piping and connections required for other trades (e.g., kitchen equipment, HVAC make-up water, etc.).
8. Acid waste, vents and neutralization systems for laboratories.
9. Plumbing Legend and/or graphical symbols on the first sheet of the Plumbing Drawings in accordance with the American National Standards Institute (ANSI).
10. Plumbing riser diagrams for structures two or more stories in height above the ground level.
11. Domestic water booster pumps, boiler feed water, meter location, hose bibbs, and wall hydrants.
12. Domestic hot water: storage tanks, piping material, hanger details.
13. All required access panels shall be indicated.
14. Backflow preventors and cleanouts. Verify that access and clearance provisions for periodically inspected devices, including backflow prevention, are adequate to satisfy requirements of inspecting agencies.

(h) Heating, Ventilating and Air Conditioning Drawings shall indicate the following:

1. HVAC work, other than site work, shall not be combined on the same sheets with Fire Protection, Plumbing, Electrical, or other drawings except with the prior approval of the Owner.
2. All piping and ductwork systems shall be located and sized. All ductwork shall be shown double line.
3. All systems shall be sized at all reductions and riser diagrams of piping and duct systems shall be indicated.
4. All directions of flow and pitch on piping, and direction of flow, volumes for duct systems shall be indicated.
5. All equipment shall have sufficient servicing and/or replacement space indicated on drawings.
6. All equipment, accessories, valves and dampers with all necessary access panels, identified as to type and size. Access panels, where required for access to valves and dampers shall be indicated on drawings.
7. Cooling system pumps, chillers, cooling towers, air handling units, ductwork system and dampers, fan details, temperature control system, air and hydronic balancing equipment, and schedules shall be indicated.
8. Cooling tower design shall be indicated on the drawings showing site location, elevations and floor plan of equipment layout and typical flow diagram as related to the total HVAC system.
9. All fire and smoke dampers, access panels and doors.
10. Mechanical room designs:

a. Vent pipes for safety valves, relief valves, back pressure valves and tanks shall be extended above flat roofs in accordance with all governing authorities.
b. In all designs for boiler and refrigeration plants, include a complete floor plan indicating location of all major mechanical equipment and sufficient service space.
c. In designs of new and/or replacement boiler and refrigeration plants, provide a flow diagram detailing steam or hot water distribution systems, return systems, including all existing equipment and their function, as well as any proposed expansions with all necessary instrumentation and controls.

(i). Electrical Drawings shall indicate the following:

1. Site utilities shall be indicated on separate electrical site drawings, unless ample space is available on common site for utility drawings.
2. Electrical work, other than site work, shall not be combined on the same sheets with Fire Protection, Plumbing, HVAC, or other drawings except with the prior approval of the Owner.
3. General arrangement: Outline layout of each floor. Typical sections through the structure shall be indicated when necessary to define requirements, floor and ceiling heights, elevations, and type construction, including concrete pads shall be indicated. Indicate interface with other systems. Identify any work by other trades.
4. Interior lighting system: Light fixture schedules, circuiting location and mounting heights of all fixtures, receptacle and switch outlets, sizes and types of all lamps, conduits, all other accessories and riser diagrams shall be indicated on drawings. Indicate details and method of supporting electrical fixtures and conduits. Designer shall specify that all electrical lighting fixtures be supported from the building structure, and shall be independent of ducts, pipes, ceilings and their supporting members. Comply with seismic design criteria.
5. Power system: Locations, types and method of control for all motors, heaters, appliances, controllers, starters, branch circuits, feeder conductors and conduits. Indicate riser diagrams. Show details and indicate method of supporting electrical conduit. For larger projects, thermostats and control wiring are normally covered under the HVAC sub-contract, assure coordination.
6. Fire Alarm, Data, Communications, CATV/CCTV Systems: Locations and types of all devices, outlets and equipment, service connections, wiring diagrams, all other essential details.
7. Services: Location and details of all services, whether overhead or underground, feeder sizes, plans and elevations of switchgear and

transformers, metering and service switchboard arrangements, wiring and ground fault diagram and bus ducts.

8. General and sub-stations: Location, size, method of connection and protection of all generators, transformers, exciters, motor generators, switch gear, and associated equipment, current characteristics and equipment capacities. Indicate equipment connections by means of one line and/on wiring diagrams and schedule all major items of equipment and all instruments.
9. Underground work: The size and locations of manholes and types of cables, number, size, and location of ducts, locations, sizes and types of cable supports, fireproofing, duct line profile, and one line diagram of connections. All underground chambers, including manholes and pull-boxes, shall be constructed of cast in place or one piece pre-cast concrete.
10. Pole line work: if required as contract work, indicate location, length, treatment and class of poles, guying, cross arms, insulators, circuiting, transformers, protective and switching devices, lightning arresters, special structures, diagrams, current characteristics and grounding.
11. Exterior lighting: Location, size, and type of transformers, luminary, poles, light standards, cables, ducts, and manholes, details of control equipment and connection diagrams.
12. Emergency system details including transfer switch, type of fuel.
13. One line diagram indicating load KVA, and available short circuit amperes at each transformer, switchboard, distribution panel board, branch circuit panel board, and at major pieces of equipment.
14. Riser diagrams for all systems.

7.7.9 Project Manual Requirements:

(a) The format for the Project Manual, including its technical specifications shall be in accordance with the current CSI MasterFormat with separate sections for each of class of work required by M.G.L. c. 149 §44F.

(b) The following general information applies to the development of final Specifications:

1. Describe the extent of the work, the materials and workmanship, and include the work under the proper section. If any portion of the work included in a section of the Specifications is to be performed by a trade covered by another section, there shall be clear and distinct cross-referencing between the sections. Merely to state “by others” is not acceptable.
2. For each item of material or equipment, the specifications shall provide for a minimum of three named brands of material or equipment and the words “or equal” or a description of material or equipment which can be met by a minimum of three manufacturers or producers, and the words “or equal.” Proprietary products shall not be specified except as provided by M.G.L. c.

30, § 39M; however, when they are specified, proprietary specifications are subject to the "or equal" provisions of M.G.L. c.30, § 39M.

3. Specify materials mined or manufactured in Massachusetts first and the United States of America second whenever possible.
4. Do not use general clauses intended to be all-inclusive in lieu of complete descriptions.
5. Do not duplicate standard requirements that are contained in the contract form.
6. Use consistency throughout. The word "will" shall be used to designate what the Owner, Authority, Owner's Project Manager, Commissioning Consultant, or the Designer can be expected to do, and the word "shall" shall be used to designate what is mandatory for the CM at Risk or subcontractors to do.
7. Use the same term throughout for the same subject and the term shall be the same as that used on the drawings.
8. Do not use the term "etc."
9. Avoid such terms as "to the satisfaction of the Designer," "as directed by the Designer," "as approved" and "as required."
10. Specify work in appropriate Sections according to local trade jurisdiction.
11. Avoid the use of the following symbols:

Symbol	Use Instead
#	number, no., or pounds
%	percent
"	inch or in.
x	by
'	feet or ft.
o	degree
/	per or at

12. In sections for which filed sub-bids are required, refrain from using such terms as "the Contractor," the "Heating Contractor," or "the Plumbing Contractor," but where necessary for clarity refer to the "HVAC Subcontractor," the "CM at Risk" and the like.
13. Do not give numbers both in words and figures. Numbers less than 10 shall be written in words, 10 and higher numbers shall be written in figures. In expressing dimensions, figures such as 2 in., 16 in., 7 ft., 6 in., shall be used.
14. Each filed sub-bid section shall detail all labor and materials required by the particular sub-trade and list, by number, those drawings (and only those drawings) indicating work of that sub-trade. In addition, list drawings indicating work of a particular trade that appears on drawings that are not customarily included in the work of the trade, when applicable.
15. Do not specify that a product or system shall require prequalification or advance approval prior to bidding.

16. Established unit price items shall be used for work categories which cannot be ascertained for exact quantities in bid documents (e.g. earthwork removal and/or replacement items). In such cases, the Designer shall establish ranges of quantities with associated unit price values for each range. Unit price values shall be established for added work, for deleted work, for base bid quantities when conditions so-suggest. Unit price values shall be ascertained through consultation with cost estimators and the CM at Risk, be current, equitable, and well defined as to elements of work, overhead, like issues to be encompassed. Established unit prices shall be published within the applicable technical specification sections, and referenced from general conditions as being operative as the basis for determining values to be used for payment or recovery for change order work.
17. Staging, scaffolding, cutting and patching, refuse collection and disposal, demolition work and cleaning task, allocation policy and proposed language shall be carefully assigned to avoid duplication or omission.
18. A final draft of Project Advertisement, Notice to Bidders, Instructions to Bidders, Contract Forms, General Conditions, Supplementary General Conditions, and other "front end" documents shall be included in the 90% construction documents submittal, along with a final version of all text to appear in Division 1, General Requirements. The Designer may defer insertion of final advertising / bid dates and wage rates, understanding that they are to be established and inserted immediately prior to release of documents for bidding.

7.7.10 Construction Cost Estimate Requirements

(a) The Designer shall provide the construction cost estimates described in Articles 7.7.4 and 7.7.6 in accordance with the following provisions:

1. The Designer shall review its construction cost estimate in comparison with the detailed construction cost estimate, and any update cost estimates, provided by the CM at Risk and shall work in good faith and in cooperation and coordination with the CM at Risk to reconcile any differences between the cost estimates, to clarify assumptions upon which the cost estimates are based and to address any concerns or questions with the cost estimates that are raised by the Owner, the OPM, the CM at Risk or the Authority. If the Designer is unable to reconcile all differences between the two construction cost estimates with the CM at Risk, then the Designer shall provide a detailed explanation of the differences to the Owner and the Authority. If, in any case, the agreed-upon, reconciled construction cost estimate exceeds the Project Construction Budget, the Designer shall cooperate with the Owner, the OPM, and the CM at Risk in identifying, specifying and recommending changes in materials, equipment, component systems and types of construction, or other adjustments in the scope or materials selections for the Project, including

contingencies or alternative bid items, so as to facilitate revision of the design of the Project to reduce the cost of construction so as to comply with the Project Construction Budget.

2. Cost estimate data shall be organized to identify elements of project work which may be proposed to be advanced under separate construction phases and/or separate bidding packages. When so proposed, estimates shall develop cost data relative to corresponding bidding and work execution dates established in project schedules.

3. Cost estimates shall be projected to the mid point of the construction period.

4. The summary sheets shall contain the following:

   a. The date that the estimate was prepared. (Value Date).

   b. The anticipated bid date.

   c. The project and contract number.

   d. The title and location of the project.

   e. The name of the Designer.

   f. The name of the Estimator.

   g. The site work cost (including all utilities).

   h. The building cost (including fixed equipment).

   i. The estimated construction cost of each Phase of the work, totaled.

7.7.11 The Designer shall participate in a final review of the Construction Documents with the Owner, the Owner's Project Manager, the Commissioning Consultant, and the CM at Risk, and the Designer shall incorporate such changes as are necessary to satisfy the Owner's review comments.

7.7.12 Guaranteed Maximum Price ("GMP")

(a) When the Construction documents are 60% complete as determined by the Owner, or at such later time as may be designated by the Owner, the Designer shall prepare a fully coordinated set of the then-current Construction Documents, which shall be delivered to the CM at Risk and shall be the basis of the CM's GMP proposal.

(b) The Designer shall provide technical assistance to the Owner and the OPM in the negotiation and development of a GMP with a CM at Risk in accordance with M.G.L. c. 149A, §7, that is acceptable to the Owner. The Designer shall meet with the Owner, OPM, and the CM at Risk to review the GMP proposal and the written statement of its basis. If the GMP proposal submitted by the CM at Risk exceeds the Construction Budget, the provisions of Articles 4.10.4 and 4.10.5 shall apply.

(c) The Designer shall provide technical assistance to the Owner and the Owner's Project Manager in the negotiation, preparation and execution of any amendments to the Owner-CM at Risk contract, including, but not limited to, the Guaranteed Maximum Price ("GMP") amendment pursuant to M.G.L. c.149A, § 7 and any separate amendment for any construction work commenced before execution of the GMP amendment pursuant to M.G.L. c.149A, §7(b)(3).

7.8 Bidding Phase

7.8.1 The Designer shall, when authorized by the Owner, prepare for reproduction and distribution the construction bid documents required for the solicitation and receipt of statements of qualifications and bids from Trade Contractors. The Designer shall prepare all addenda (to include bidder questions and Designer responses), subject to the Approval of the Owner. The Designer shall attend the pre-bid conference if one is scheduled, taking note of all questions asked. Relevant questions submitted in writing shall be answered by the Designer by means of written addenda to the bid documents as required. The Designer shall attend each bid opening of the Trade Contractors (and of other bidders if necessary) and shall, within five working days of the respective bid opening dates, advise the Owner in writing of the Designer's opinions as to the bids of Trade Contractors (and of other bidders if necessary).

7.8.2 The Designer shall receive all inquiries relating to the bid documents and, when necessary, answer questions by preparing and issuing written addenda. The Owner shall review and approve all such addenda prior to issuance to bidders.

7.8.3 There may be multiple bid packages for the Project. Multiple bid packages may be assembled and bid concurrently or consecutively as a portion of the Project. Portions of the Project may be bid separately from other portions. The Designer shall appropriately staff and structure its design and construction phase performance to assist the Owner in the preparation, issuance, bidding and negotiation, if any, of so-called early bid packages as provided in G.L. c. 149A, § 7(b)(3).

7.8.4 If the Project has to be re-bid, or the GMP Amendment must be re-negotiated and amended because of a defect in the bid documents prepared by the Designer or in procedures proposed by the Designer, the Designer shall correct the defect and take the necessary actions for re-bidding the Project on proper bid documents without any additional compensation to the Designer.

7.8.5 The Designer shall review alternates and make written recommendations to the Owner as to their acceptance.

7.8.6 If the Owner executes a GMP Amendment for an amount that exceeds the amount established in the Project Construction Budget, such an award will not affect the Fee for Basic Services.

7.8.7 Trade Contractor Selection Process

(a) Trade Contractor Prequalification pursuant to M.G.L. c. 149A, §8(c)

1. The Designer shall participate as a member of the Owner's Trade Contractor Prequalification Committee established by the Owner pursuant to M.G.L. c.149A, § 8(b).

2. The Designer shall review the information provided by the CM at Risk describing the work to be required of each Trade Contractor and shall assist the Owner in the preparation of the Request for Qualifications for Trade Contractors to be used to solicit responses from eligible Trade Contractors and to prequalify Trade Contractors for participation in the Project.

(b) Request for Bids for Trade Contractor Services pursuant to M.G.L. c. 149A, §8(g)

1. The Designer shall assist and advise the Owner in the preparation of the Invitation for Bids for Trade Contractor services in accordance with the provisions of M.G.L. c. 149A, §8.

2. The Designer shall attend all pre-bid conferences and meetings.

(c) Trade Contractor Bid Review

1. The Designer shall attend all bid openings and shall review all Trade Contractor bids in conjunction with the Owner's Project Manager and CM at Risk to determine responsiveness, completeness, accuracy, price and conformance to the requirements of M.G.L. c.149A, § 8(g)-(i), and to provide technical guidance to the Owner regarding the acceptance or rejection of any Trade Contractor bid. Within five business days after the respective bid opening dates, the Designer shall advise the Owner in writing of the Designer's opinions as to the bids of Trade Contractors (and of other bidders if necessary).

7.8.8 Selection of Subcontractors Who Are Not Trade Contractors pursuant to M.G.L. c.149A, § 8(j) ("Non-Trade Contractors")

(a) Non-Trade Contractor Bidding

1. The Designer shall review the detailed bidding information developed by the CM at Risk in accordance with M.G.L. c. 149A, § 8(j) for accuracy, completeness, coordination of scope and conformance with the construction documents.

(b) Non-Trade Contractor Bid Review and Award

1. The Designer shall attend all bid openings and scoping meetings if permitted or otherwise allowed by law, and, in conjunction with the Owner's Project Manager and CM at Risk, the Designer shall review all Non-Trade Contractor bids for responsiveness and completeness and advise the Owner on the acceptance or rejection of any Non-Trade Contractor bids by the CM at Risk. The Designer shall, in conjunction with the OPM, attend all final scope and negotiation meetings conducted by the CM at Risk. The Designer shall, within five working days of the respective bid opening dates, advise the Owner in writing of the Designer's opinions as to the bids of Non-Trade Contractors.

7.9 Construction Administration Phase – Obligations During Construction: Following the execution of the Owner-CM at Risk Agreement, the Designer shall undertake certain of the obligations of administering the Owner-CM at Risk Agreement on behalf of the Owner, provided that Designer shall not be subject to provisions of the Owner-CM at Risk Agreement that would have the effect of expanding Designer's responsibilities or liabilities under this Contract without Designer's written consent. Services during this phase include, but are not necessarily limited to:

7.9.1 Upon commencement of construction activities for the Work or early bid packages or at times established in Project schedules, the Designer shall:

(a) Furnish the CM at Risk with information for establishing lines and grades and such supplemental drawings as are reasonably needed to implement the intent of the Construction Contract Documents;

(b) With reasonable promptness and in accordance with schedules agreed upon by the Designer and CM at Risk, observe testing when required under this Contract, and review and act upon samples, schedules, shop drawings and other submissions from the CM at Risk;

(c) Prepare, maintain and update logs for all submittals;

(d) Visit the site at intervals appropriate to the stage of construction, weekly or as otherwise agreed to by the parties, and observe the progress of the Work, issue written progress reports, and attend job meetings, and review and respond to meeting minutes prepared by the Owner's Project Manager, and to determine in general if the Work observed is being built in a manner indicating the Work when completed will be in accordance with approved Construction Contract Documents;

(e) Collaborate with the on-site Project Representative of the OPM to identify and monitor issues of concern relative to the progress of the Work, and establish communications processes to help assure that matters of mutual concern are exchanged on a timely basis with one another, the OPM, CM at Risk, Commissioning Consultant, and Owner;

(f) On a weekly basis, make specific recommendations on rejection of any Work observed by the Designer that fails to conform to the Construction Contract Documents, and observe corrected Work;

(g) Require each Subconsultant engaged in accordance with Article 5 to make visits weekly or as otherwise agreed to by the parties during the progress of any work to which that Subconsultant 's services relate, and to report upon it in writing to the Designer;

(h) Recommend actions to be taken which may include condemnation or rejection of any work that the Designer determines fails to conform to the Owner- CM at Risk Agreement;

(i) Review and recommend appropriate action for proposed requests for changes and where required by the Owner, prepare documents associated with requests for a change in any Construction Contract Documents. Compensation for change order work by the Designer shall be determined in accordance with Article 10;

(j) Conduct semi-final and final inspections of the Project and report the results of such inspections in writing to the Owner;

(k) In association with the Commissioning Consultant, review the report by such Commissioning Consultant on the balancing of air and water circulation systems;

(l) In association with the Commissioning Consultant, review the report by such Commissioning Consultant on the setting and adjustment of automatic controls;

(m) In a timely manner, decide all questions regarding interpretation of, or compliance with, the Construction Contract Documents, except as the Owner may in writing otherwise determine;

(n) In association with the Commissioning Consultant, review the recommendations of such Commissioning Consultant for requirements upon operating and maintenance documents and building user training events and instructional media as established in the Construction Contract Documents; such Commissioning Consultant or OPM shall coordinate involvement of contracting parties, the Designer, and Owner;

(o) Furnish the Record Drawings as submitted by the CM at Risk in accordance with 7.9.3, and other required documents;

(p) Assist the Owner in providing the written CM at Risk Evaluations required of the Owner pursuant to M.G.L. c.149 §44D(7) at the completion of approximately 50% of the Construction Phase on forms prescribed by M.G.L. c.149 §44D(16);

(q) Perform inspections of the work as necessary to prepare a punch list identifying each incomplete or deficient Work item and performing re-inspections to authorize removal of satisfactorily completed Work items from the punch list, or to determine that the Project is complete. In association with the OPM, a cost shall be assigned to each incomplete or deficient Work item when it has been determined that the Project has reached Substantial Completion; and

(r) Receive from the CM at Risk all maintenance and operating manuals, occupancy permits, guarantees and other similar relevant materials.

7.9.2 The Designer shall submit to the Owner's Project Manager within 48 hours all requisitions for payment submitted by the CM at Risk in the form required by the Owner. The Designer may establish procedures with the CM at Risk for advance notification of requisition and/or draft version processing. With respect to each such requisition, the Designer shall certify to the best of its knowledge that the percentage of Work included in the requisition is accurate and that the work performed is in accordance with the Construction Contract Documents. In the event the Designer does not approve the requisition exactly as submitted by the CM at Risk, the Designer shall forward it for payment to the Owner's Project Manager dated and signed with corrections and with an accompanying letter of explanation setting forth the Designer's objections and recommended changes. The Designer shall coordinate the required visits of its own staff and those of its Subconsultants, to the construction site so as to enable it to submit to the Owner's Project Manager the CM at Risk's monthly requisition for payment. Timely payments to the CM at Risk are required by M.G.L. c. 30, § 39K. Therefore, the Designer shall establish procedures to help assure either immediate mail or messenger delivery of the requisition for payment to the Owner's Project Manager, and shall process requisitions for payment within five business days after receipt of the same, provided the CM at Risk has submitted a full and complete requisition for payment in the correct form.

7.9.3 Prior to issuance of the Certificate of Substantial Completion, the Designer shall obtain from the CM at Risk as-built drawings, including drawings showing the actual installation of the site utilities, plumbing, heating, ventilating and electrical work under the Owner-CM at Risk Agreement, and recording all changes. The Designer shall ascertain that changes authorized by change orders are shown on the CM at Risk's as-built drawings, but Designer shall be entitled to rely upon the accuracy and completeness of the CM at Risk's as-built information, and shall forward such to the Owner as Record Drawings.

7.9.4 Issue the Certificate of Substantial Completion of Construction.

7.9.5 The Designer shall meet with the Owner monthly during this Phase.

7.10 Completion Phase: Upon acceptance of the Certificate of Substantial Completion of Construction by the Owner, the Designer shall thereafter provide the following services:

7.10.1 With respect to a completed Project, preparing a Certificate of Final Completion.

7.10.2 With respect to a punch list, re-inspecting the work up to three times in order to determine that the punch list work is satisfactorily completed.

7.10.3 Reviewing and certifying the CM at Risk's Application(s) and Certificate(s) for Payment as necessary.

7.10.4 Attending meetings as reasonably necessary in the opinion of the Owner or Owner's Project Manager, unless such meetings involve continued discussions of incomplete or deficient work and the Basic Services punch list site visits have been expended. In such instance, the meetings shall be paid for as Extra Services.

7.10.5 Using the as-built information maintained by the CM at Risk during construction referred to in Article 7.9.3, and revising the applicable original reproducible drawings and electronic media drawings on the basis of the as-built drawings, provided that Designer shall be entitled to rely upon the accuracy and completeness of the CM at Risk's as-built information. Upon completion of the required drafting and editing, provide one set of mylar reproducibles, two sets of prints and two (2) electronic version copies to the Owner which shall become the property of the Owner. The cost for printing the mylar reproducibles and two sets of prints are Reimbursable Expenses.

7.10.6 Ten (10) months after the date of substantial completion, performing one (1) site inspection and preparing a list of construction warranty deficiencies. The Designer shall consult with the Commissioning Consultant upon the acceptability of warranty compliance requirements and response actions.

7.10.7 Informing the Owner in writing, through the Owner's Project Manager, of all such warranty deficiencies that should be addressed.

7.10.8 Performing one (1) site inspection within a further sixty (60) days to see that all such warranty deficiencies have been corrected.

7.10.9 Evaluation of CM at Risk: The Designer shall assist the Owner with providing the written CM at Risk Evaluations required of the Owner pursuant to M.G.L. c.149 § 44D(7) within 70 days of the date of Substantial Completion for construction, on forms prescribed by M.G.L. c.149 § 44D(16).

7.11.10 The Designer shall assist the Owner in providing the written summary report on the Project to the Office of the Inspector General as required by the provisions of 945 CMR 2.09

7.10.11 Two (2) suitably bound, legible copies of all original design and quantity calculations including those pertinent to change orders and shop drawings, if applicable, shall be

furnished by the Designer to the Owner at the conclusion of the Owner-CM at Risk Agreement.

Commonwealth of Massachusetts

Standard Designer Application Form for Municipalities and Public Agencies not within DSB Jurisdiction (Updated July 2016)

1. Project Name/Location For Which Firm Is Filing:

2. Project #

This space for use by Awarding Authority only.

3a. **Firm (Or Joint-Venture) - Name and Address Of Primary Office To Perform The Work:**

3. Name Of Proposed Project Manager:
For Study: (if applicable)
For Design: (if applicable)

3b. Date Present and Predecessor Firms Were Established:

3f. Name and Address Of Other Participating Offices Of The Prime Applicant, If Different From Item 3a Above:

3c. Federal ID #:

3g. Name and Address Of Parent Company, If Any:

3d. Name and Title Of Principal-In-Charge Of The Project (MA Registration Required):

Email Address:

Telephone No: Fax No.:

3. Check Below If Your Firm Is Either:

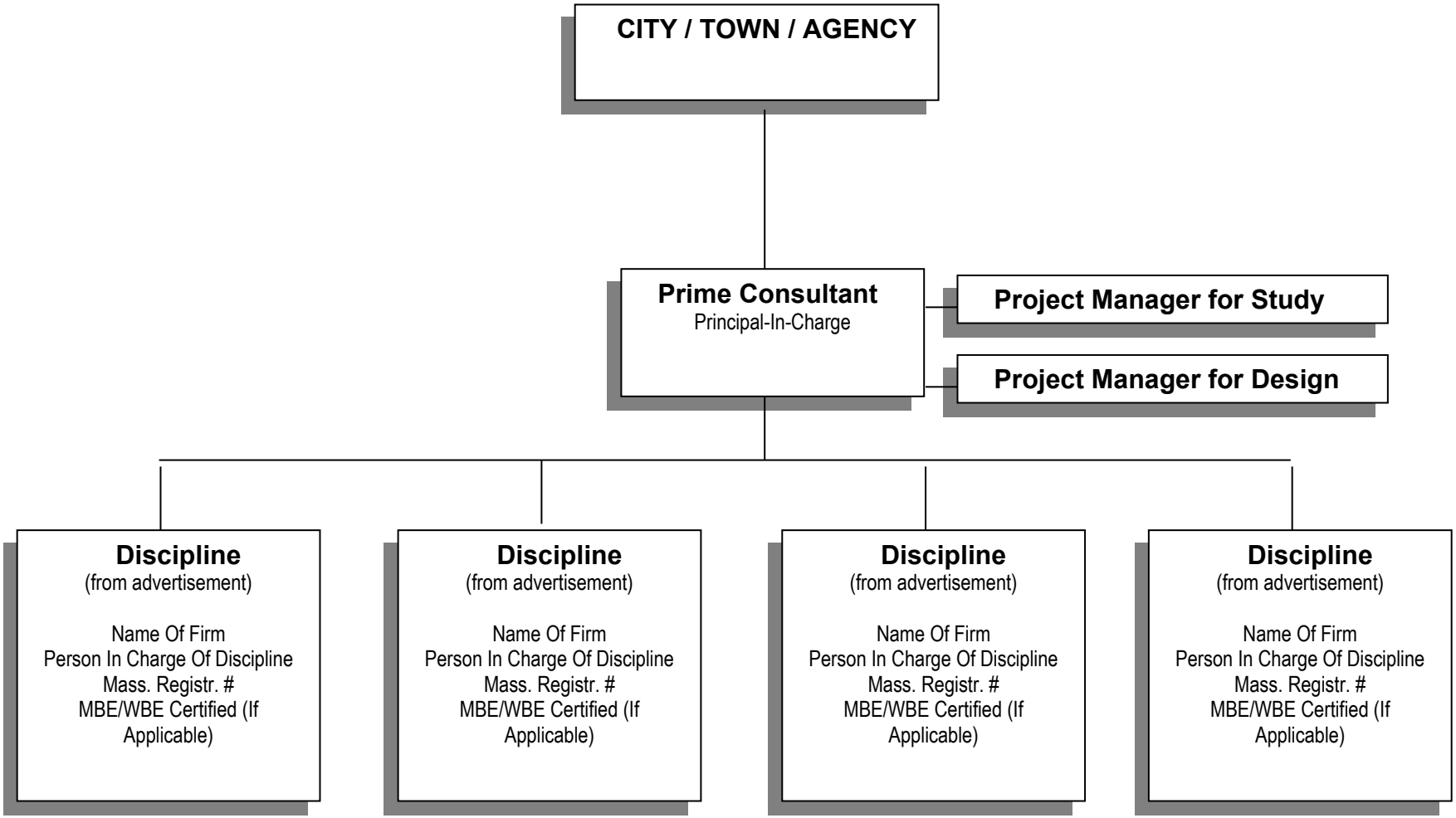
(1) SDO Certified Minority Business Enterprise (MBE) ❑
(2) SDO Certified Woman Business Enterprise (WBE) ❑
(3) SDO Certified Minority Woman Business Enterprise (M/WBE) ❑
(4) SDO Certified Service Disabled Veteran Owned Business Enterprise (SDVOBE) ❑
(5) SDO Certified Veteran Owned Business Enterprise (VBE) ❑

4. **Personnel From Prime Firm Included In Question #3a Above** By Discipline (List Each Person Only Once, By Primary Function -- Average Number Employed Throughout The Preceding 6 Month Period. Indicate Both The Total Number In Each Discipline And, Within Brackets, The Total Number Holding Massachusetts Registrations):

Admin. Personnel	____	(____)	Ecologists	____	(____)	Licensed Site Profs.	____	(____)	Other ____	____	(____)
Architects	____	(____)	Electrical Engrs.	____	(____)	Mechanical Engrs.	____	(____)	____	____	(____)
Acoustical Engrs.	____	(____)	Environmental	____	(____)	Planners: Urban./Reg.	____	(____)	____	____	(____)
Civil Engrs.	____	(____)	Fire Protection	____	(____)	Specification Writers	____	(____)	____	____	(____)
Code Specialists	____	(____)	Geotech. Engrs.	____	(____)	Structural Engrs.	____	(____)	____	____	(____)
Construction Inspectors	____	(____)	Industrial	____	(____)	Surveyors	____	(____)	____	____	(____)
Cost Estimators	____	(____)	Interior Designers	____	(____)		____	(____)	____	____	(____)
Drafters	____	(____)	Landscape	____	(____)		____	(____)	Total	____	(____)

5. Has this Joint-Venture previously worked together? ❑ Yes ❑ No

6. List **ONLY** Those Prime And Sub-Consultant Personnel Specifically Requested In The Advertisement. This Information Should Be Presented Below In The Form Of An Organizational Chart. Include Name Of Firm And Name Of The One Person In Charge Of The Discipline, With Mass. Registration Number, As Well As MBE/WBE Status, If Applicable:



7.	Brief Resume of ONLY those Prime Applicant and Sub-Consultant personnel requested in the Advertisement. Include Resumes of Project Managers. Resumes should be consistent with the persons listed on the Organizational Chart in Question # 6. Additional sheets should be provided only as required for the number of Key Personnel requested in the Advertisement and they must be in the format provided. By including a Firm as a Sub-Consultant, the Prime Applicant certifies that the listed Firm has agreed to work on this Project, should the team be selected.	
a.	Name and Title Within Firm:	a. Name and Title Within Firm:
b.	Project Assignment:	b. Project Assignment:
c.	Name and Address Of Office In Which Individual Identified In 7a Resides: MBE ❑ WBE ❑ SDVOBE ❑ VBE ❑	c. Name and Address Of Office In Which Individual Identified In 7a Resides: MBE ❑ WBE ❑ SDVOBE ❑ VBE ❑
d.	Years Experience: With This Firm: _____ With Other Firms: _____	d. Years Experience: With This Firm: _____ With Other Firms: _____
e.	Education: Degree(s) /Year/Specialization	e. Education: Degree(s) /Year/Specialization
f.	Active Registration: Year First Registered/Discipline/Mass Registration Number	f. Active Registration: Year First Registered/Discipline/Mass Registration Number
g.	Current Work Assignments and Availability For This Project:	g. Current Work Assignments and Availability For This Project:
h.	Other Experience and Qualifications Relevant To The Proposed Project: (Identify Firm By Which Employed, If Not Current Firm):	h. Other Experience and Qualifications Relevant To The Proposed Project: (Identify Firm By Which Employed, If Not Current Firm):

8a.	Current and Relevant Work By Prime Applicant Or Joint-Venture Members. Include **ONLY** Work Which Best Illustrates Current Qualifications In The Areas Listed In The Advertisement (List Up To But Not More Than 5 Projects).					
a.	Project Name And Location Principal-In-Charge	b. Brief Description Of Project And Services (Include Reference To Relevant Experience)	C. Client's Name, Address And Phone Number (Include Name Of Contact Person)	d. Completion Date (Actual Or Estimated)	e. Project Cost (In Thousands)	
					Construction Costs (Actual, Or Estimated If Not Completed)	Fee for Work for Which Firm Was Responsible
(1)						
(2)						
(3)						
(4)						
(5)						

8b.	List Current and Relevant Work By Sub-Consultants Which Best Illustrates Current Qualifications In The Areas Listed In The Advertisement (Up To But Not More Than 5 Projects For Each Sub-Consultant). Use Additional Sheets Only As Required For The Number Of Sub-Consultants Requested In The Advertisement.					
Sub-Consultant Name:						
a. Project Name and Location Principal-In-Charge	b. Brief Description Of Project and Services (Include Reference To Relevant Experience	c. Client's Name, Address And Phone Number. Include Name Of Contact Person	d. Completion Date (Actual Or Estimated)	e. Project Cost (In Thousands)	
				Construction Costs (Actual, Or Estimated If Not Completed)	Fee For Work For Which Firm Was/Is Responsible
(1)					
(2)					
(3)					
(4)					
(5)					

9. List All Projects Within The Past 5 Years For Which Prime Applicant Has Performed, Or Has Entered Into A Contract To Perform, Any Design Services For All Public Agencies Within The Commonwealth.

# of Total Projects:	**# of Active Projects:**	**Total Construction Cost (In Thousands) of Active Projects (excluding studies):**

Role P, C, JV *	Phases St., Sch., D.D., C.D.,A.C.*	Project Name, Location and Principal-In-Charge	Awarding Authority (Include Contact Name and Phone Number)	Construction Costs (In Thousands) (Actual, Or Estimated If Not	Completion Date (Actual or Estimated) (R)Renovation or (N)New
		1.			
		2.			
		3.			
		4.			
		5.			
		6.			
		7.			
		8.			
		9.			
		10.			
		11.			
		12.			

* P = Principal; C = Consultant; JV = Joint Venture; St. = Study; Sch. = Schematic; D.D. = Design Development; C.D. = Construction Documents; A.C. = Administration of Contract

10. Use This Space To Provide Any Additional Information Or Description Of Resources Supporting The Qualifications Of Your Firm And That Of Your Sub-Consultants For The Proposed Project. If Needed, Up To Three, Double-Sided 8 ½" X 11" Supplementary Sheets Will Be Accepted. **APPLICANTS ARE ENCOURAGED TO RESPOND SPECIFICALLY IN THIS SECTION TO THE AREAS OF EXPERIENCE REQUESTED IN THE ADVERTISEMENT**.

Be Specific – No Boiler Plate

11. Professional Liability Insurance:

Name of Company	Aggregate Amount	Policy Number	Expiration Date

12. Have monies been paid by you, or on your behalf, as a result of Professional Liability Claims (in any jurisdiction) occurring within the last 5 years and in excess of $50,000 per incident? Answer **YES** or **NO**. If YES, please include the name(s) of the Project(s) and Client(s), and an explanation (attach separate sheet if necessary).

13. Name Of Sole Proprietor Or Names Of All Firm Partners and Officers:

Name	Title	MA Reg #	Status/Discipline	Name	Title	MA Reg #	Status/Discipline
a.				d.			
b.				e.			
c.				f.			

14. If Corporation, Provide Names Of All Members Of The Board Of Directors:

Name	Title	MA Reg #	Status/Discipline	Name	Title	MA Reg #	Status/Discipline
a.				d.			
b.				e.			
c.				f.			

15. Names Of All Owners (Stocks Or Other Ownership):

Name And Title	% Ownership	MA. Reg.#	Status/Discipline	Name And Title	% Ownership	MA. Reg.#	Status/Discipline
a.				d.			
b.				e.			
c.				f.			

16. I hereby certify that the undersigned is an Authorized Signatory of Firm and is a Principal or Officer of Firm. I further certify that this firm is a "Designer", as that term is defined in Chapter 7C, Section 44 of the General Laws, or that the services required are limited to construction management or the preparation of master plans, studies, surveys, soil tests, cost estimates or programs. The information contained in this application is true, accurate and sworn to by the undersigned under the pains and penalties of perjury.

Submitted by (Signature) _____ Printed Name and Title _____ Date _____

MSBA Project No. 202301760505

MASSACHUSETTS SCHOOL BUILDING AUTHORITY
CITY OF MEDFORD
MEDFORD HIGH SCHOOL
DESIGN ENROLLMENT CERTIFICATION

As a result of a collaborative analysis with the Massachusetts School Building Authority (the "MSBA") of enrollment projections and space capacity needs for the proposed project at the Medford High School (the "proposed project"), the City of Medford hereby acknowledges and agrees that the design of the proposed project at the Medford High School shall be based on an enrollment of no more than 1,395 students in grades 9-12, with the potential addition of district-wide Pre-K. The City of Medford further acknowledges and agrees that pursuant to 963 CMR 2.00 *et seq.*, the MSBA shall determine the square feet per student space allowance and total square footage for grades 9-12 in a high school serving 1,395 students. The City of Medford acknowledges and agrees that it has no right or entitlement to any particular design enrollment, square feet per student space allowance, or total square footage and that it has no right or entitlement to a design enrollment any greater than 1,395 students for the Medford High School, and further acknowledges and agrees that it shall not bring any claim or action, legal or equitable, against the MSBA, or any of its officers or employees, for the purpose of obtaining an increase in the design enrollment of the Medford High School that it has acknowledged and agreed to herein. The City of Medford further acknowledges and agrees that, among other things, the design enrollment, square feet per student space allowance, and total square footage of the Medford High School shall be subject to the approval of the MSBA's Board and that the final approval of a proposed project at the Medford High School shall be within the sole discretion of the MSBA's Board.

The undersigned, for themselves and the City of Medford, hereby certify that they have read and understand the contents of this Design Enrollment Certification and that each of the above statements is true, complete and accurate. The undersigned also hereby certify that they have been duly authorized by the appropriate governmental body to execute this Certification on behalf of the City of Medford and to bind the City of Medford to its terms.

Mayor, City of Medford

12/24/24
Date

Duly Authorized Representative of School Committee

12/24/24
Date

Marie Edouard-Vincent
Superintendent of Schools

1/2/2025
Date

Massachusetts School Building Authority

Deborah B. Goldberg
Chair, State Treasurer

James A. MacDonald
Chief Executive Officer

Mary L. Pichetti
Executive Director / Deputy CEO

December 18, 2024

The Honorable Breanna Lungo-Koehn, Mayor
City of Medford
Medford City Hall
85 George P. Hassett Drive, Room 202
Medford, MA 02155

Re: City of Medford, Medford High School

Dear Mayor Lungo-Koehn:

I would like to thank representatives of the City of Medford (the "District") for meeting with Massachusetts School Building Authority (the "MSBA") staff on July 25, 2024, to review enrollment projections and methodologies for the Medford High School project (the "Proposed Project") and for the additional materials provided on August 19, 2024. As discussed, the next critical step is for the MSBA and the District to agree on a design enrollment for the Proposed Project.

The MSBA works with local communities to create affordable, sustainable, and energy-efficient schools across Massachusetts. A critical early component in achieving these objectives begins with an appropriate design enrollment that positions the District to efficiently meet space capacity needs throughout potential future enrollment variations.

The MSBA uses a data-driven enrollment projection methodology based on the widely accepted modified grade-to-grade cohort survival methodology (the "enrollment methodology"). The MSBA's enrollment methodology generates a baseline enrollment projection as discussed during the July 25, 2024, enrollment meeting, and as further described on the MSBA's website found under the 'Building With Us', 'MSBA Enrollment Methodology' section.

Based on discussion and information supplied by the District, data from sources such as the Department of Elementary and Secondary Education ("DESE") and Department of Public Health, the MSBA has been able to create an enrollment projection for the Proposed Project, as follows.

Medford High School presently serves the District's grade 9-12 enrollment and a portion of the District's Pre-K enrollment. Based on the information provided by the District, the MSBA understands that the District would like the Feasibility Study to evaluate the potential of locating the District's therapeutic high school program, the Curtis-Tufts School, as well as the balance of

district-wide Pre-K enrollment, currently located within the elementary schools, to the proposed project.

As discussed, Pre-K enrollment is not included in these projections with the determination of required space determined during the feasibility study phase of the MSBA's process at the time of the review of the District's proposed educational space program for the proposed project. Accordingly, this analysis will be focused on the projections for grade 9-12 enrollment.

The table below illustrates the District's K-12 enrollment during the most recent ten-year period, including enrollment for the 2023-2024 school year, as reported by the DESE.

School Year	K-5	6-8	9-12	Total
2014-2015	2,086	970	1,349	4,405
2015-2016	1,977	928	1,411	4,316
2016-2017	1,978	982	1,400	4,360
2017-2018	1,876	960	1,376	4,212
2018-2019	1,885	920	1,292	4,097
2019-2020	1,871	921	1,265	4,057
2020-2021	1,711	893	1,266	3,870
2021-2022	1,803	915	1,211	3,929
2022-2023	1,874	917	1,268	4,059
2023-2024	1,938	884	1,195	4,017

A version of the above table with more detail regarding the District's historic enrollment may also be found in the District's updated Enrollment Projection package.

The total grade 9-12 enrollment in the City of Medford as reported by the District for the 2023-2024 school year was 1,195 students, which reflects a decrease of approximately 216 students (-15.31%) from the maximum grade 9-12 enrollment reported during the preceding ten-year period. Additionally, the 2023-2024 grade 9-12 enrollment reflects a decrease of approximately 108 students (-8.31%) from the average grade 9-12 enrollment reported during the preceding ten-year period. The MSBA understands that the District is proposing an enrollment to accommodate approximately 1,500 students in grades 9-12 plus an additional 200 district-wide Pre-K students. The grade 9-12 enrollment reported to DESE for the 2023-2024 school year was 1,195 students.

With respect to future enrollments, the MSBA's base enrollment projection indicates a declining trend early in the projection until 2031, then after a short increase is projected to stabilize through the 2033-2034 school year. In accordance with the MSBA's Enrollment Methodology, the baseline enrollment is calculated using the ten-year average of projected enrollments. As such, the average grade 9-12 base enrollment projection for Medford High School through the 2033-2034 school year is 1,227 (1,225 rounded) students.

As a result of a sensitivity analysis performed by the MSBA on this base enrollment projection and further discussion with the District, the following adjustment has been made to the base enrollment projection:

- Out-of-District Enrollment
  - In order to adjust for fluctuations in the out-of-district enrollment patterns of the District's residents over time, the MSBA has made an additional adjustment to the base enrollment projection.
  - In order to make this adjustment, the MSBA adjusted the grade-to-grade survival ratios for grade 9-12 enrollment by a total of 5.6% throughout a four-year period in the projection.
  - This adjustment added 45 students to the base grade 9-12 enrollment as compared to the projection without this adjustment.

- Development
  - Based on the discussions between the District and the MSBA regarding new housing developments and the potential zoning changes accommodating transit-oriented development, as well as the development information provided by the District, the MSBA enrollment model was adjusted to account for the potential impact of developments that are beyond what is typically experienced in the District.
  - This adjustment added 125 students to the base grade 9-12 grade enrollment as compared to the base enrollment projection.

As a result of the analysis of the average base enrollment projection, the adjustments to the base projection described above, as well as the historical enrollment trends of the District, the MSBA recommends a design enrollment of 1,395 students in grades 9-12 (plus Pre-K students) for the Medford High School proposed project.

As previously described, the MSBA understands that the District would like to include space for district-wide Pre-K and the District's therapeutic high school program, the Curtis-Tufts School. If this configuration is determined to be the Preferred Solution, the District will be required to establish in the Preferred Schematic Report the proposed future use or disposition of any existing spaces vacated or otherwise repurposed by this proposed project. The District will also be required to illustrate that the Preferred Solution has been approved by the School Committee and necessary District officials. Further, the MSBA will require a written plan from the District, describing the process for determining local support for this potential configuration.

Both the MSBA's enabling legislation, M.G.L. c. 70B, and the MSBA's regulations, 963 CMR 2.00 et seq. specifically address the issue of past MSBA-funded projects. Pursuant to these requirements and depending on the District's ultimate plan for the existing Medford High School, which was the subject of an MSBA-funded Science Lab Initiative renovation project, the MSBA may recover a pro-rated portion of the financial assistance that the District received under a previous grant. The substantial completion of the prior project at the existing Medford High School was on July 18, 2014. The exact amount to be recovered will be established at the conclusion of Module 4 – Schematic Design.

The MSBA believes that this design enrollment recommendation will position the District to efficiently meet space capacity needs throughout future enrollment variations. Please sign and return the attached certification within 21 calendar days to confirm agreement on this design enrollment. If the District feels that this design enrollment recommendation does not meet the needs of the District, please respond to this letter via e-mail to Allison Sullivan (Allison.Sullivan@MassSchoolBuildings.org) and propose three meeting/conference call times for which the District can be available.

If you have any questions regarding this matter, please do not hesitate to contact me or Allison Sullivan at 617-720-4466.

Sincerely,

Michael P McGurl

Michael McGurl
Director of Capital Planning

Cc: Legislative Delegation
Isaac B. Bears, President, Medford City Council
Jenny Graham, Vice Chair, Medford School Committee
Dr. Marice Edouard-Vincent, Superintendent, Medford Public Schools
Dr. Peter Cushing, Assistant Superintendent for Enrichment, Innovation and Operations, Medford Public Schools
File: 10.2 Letters (Region 4)

Massachusetts School Building Authority
Designer Selection Procedures

Section 1: Introduction

The following designer selection process has been adopted by the Massachusetts School Building Authority (MSBA) pursuant to Massachusetts General Laws, Chapter 7C, Sections 44 through 58 for the procurement of designers, and programmers by cities, towns, regional school districts, and independent agricultural and technical schools seeking funding from the MSBA for public school construction projects where the estimated construction cost is equal to or greater than $5,000,000.00 (or other such amount as may be determined from time to time by the Executive Director of the MSBA), except for the MSBA's model schools program. Designer selection for public school construction projects where the estimated construction cost is less than $5,000,000.00 (or other such amount as may be determined from time to time by the Executive Director of the MSBA) shall be conducted pursuant to Massachusetts General Laws, Chapter 7C, Section 54, by the respective city, town, regional school district or independent agricultural and technical school and in accordance with the MSBA's Designer Selection Guidelines.

Section 2: Designer Selection Panel

A. The MSBA Designer Selection Panel (DSP) shall be composed of the following individuals who shall be appointed to the DSP by the MSBA's Executive Director ("Executive Director") in accordance with following procedures:

1. The Executive Director, ex officio, or his/her designee;

2. Three (3) MSBA staff members associated with project management, design and/or construction oversight selected by the Executive Director;

3. One (1) public member selected by the Executive Director;

4. One (1) member who is a Massachusetts registered architect or architect emeritus as recommended by the Boston Society of Architects;

5. Two (2) members who are Massachusetts registered architects or architect emeritus selected by the Executive Director;

6. One (1) member who is a Massachusetts registered engineer as recommended by the American Council of Engineering Companies of Massachusetts;

7. Two (2) members who are Massachusetts registered professional engineers selected by the Executive Director;

8. One (1) member who is a representative of the construction industry as recommended by Associated General Contractors of Massachusetts;

9. One (1) member who is a representative of the construction industry as recommended by the Massachusetts Building Trades Council;

10. Three (3) members who are proposed by the respective city, town, regional school district, independent agricultural and technical school or other public agency that is the Eligible Applicant, as defined in M.G.L. Chapter 70B, Section 2 for the specific project under consideration, one (1) of whom shall be designated by the school committee, district school committee, or board of trustees of the Eligible Applicant, as the case may be; one (1) of whom shall be the superintendent of schools of the Eligible Applicant, ex officio, or his/her designee; and one (1) of whom shall be the chief executive officer of the city or town that is the Eligible Applicant, ex officio, or his/her/its designee or, in all other cases, a member of the School Building Committee designated by the School Building Committee. The appointment of members pursuant to this Section 2(A)(10) shall be subject to the execution of a certification by each such member that the member has read and understands these procedures and the Designer Selection Guidelines.

B. Members proposed or recommended by the societies or associations pursuant to subsections 2(A)(4), 2(A)(6), 2(A)(8), and 2(A)(9) above and the members proposed by the Eligible Applicant pursuant to subsection 2(A)(10) above shall be subject to appointment by the Executive Director who reserves the right, within his/her discretion, not to appoint or to disapprove the appointment of said proposed or recommended members. In considering the appointment of members proposed by the Eligible Applicant pursuant to subsection 2(A)(10), the Executive Director may consider, among other things, the extent to which the three (3) proposed members, as a whole, represent the interests of the Eligible Applicant.

C. The Executive Director shall appoint a chairperson from one of the members appointed to the DSP pursuant to subsections 2(A)(3) through 2(A)(9) above, who is a registered architect, architect emeritus or registered professional engineer and who shall also serve as chairperson of any subcommittee of the DSP.

D. The Executive Director shall appoint a clerk of the DSP to administer the voting process and assist the chairperson with other procedural matters. The Clerk may be a staff member of the Authority or one of the members appointed to the DSP pursuant to subsections 2(A)(3) through 2(A)(9) above.

E. All meetings of the DSP shall be open to the public unless the DSP votes to go into executive session by a roll call vote and announces the purpose of the executive session and whether the DSP will convene in open session at the conclusion of the executive session. Any action taken by the DSP in executive session shall be by a roll call vote.

F. The presence of nine (9) members, no less than four (4) of whom shall be registered architects, architects emeritus or registered professional engineers, shall constitute a quorum. The DSP shall not conduct any business without the presence of a quorum. The affirmative vote of a simple majority of the members present and voting shall be necessary and sufficient for any action taken by the DSP. No vacancy in the membership of the DSP shall impair the right of a quorum to exercise all the rights and duties of the DSP. In the absence of a quorum, the Chairperson may recess a meeting to some other time or until a quorum is obtained.

G. Subject to the discretion of the Executive Director, each member appointed pursuant to subsections 2(A)(3) through 2(A)(9) shall serve for a two-year term provided that every member that is appointed by the Executive Director shall continue to serve until a successor has been appointed to the DSP by the Executive Director. Subject to the discretion of the Executive Director, members appointed pursuant to subsections 2(A)(3) through 2(A)(9) may serve consecutive terms. Members representing the Eligible Applicant who are appointed pursuant to subsection 2(A)(10) shall serve only while the DSP conducts business directly related to the selection of a designer for the project being proposed by that particular Eligible Applicant.

H. No member of the DSP shall participate in the selection of a designer as a finalist for any project if the member's participation would constitute a conflict of interest or an appearance of conflict in violation of M.G.L. Chapter 268A.

Section 3: Public Notice

A. Each contract for designer services for a project subject to these procedures shall be publicly advertised in a newspaper of general circulation in the area in which the project is located or is to be located and, in the Massachusetts Central Register at least four weeks before the deadline for filing applications. The public notice shall contain:

1. A description of the project, including the specific designer services sought, the time period within which the project is to be completed, and, if available, the estimated construction cost;

2. If there is a program for the project, a statement of when and where the program will be available for inspection by applicants, and when and where a briefing session will be held for applicants and if there is not a program for the project, a statement to the effect;

3. The qualifications required of applicants for the projects;

4. The categories of designers' consultants, if any, for which applicants must list the names of consultants which the applicant may choose to use;

5. Whether the fee has been set or will be negotiated, and if the fee has been set, the amount of the fee;

6. The deadline for submission of applications;

7. The person and address from which application forms may be obtained and, when completed, to whom they may be delivered;

8. Any other pertinent information that may be required by law or deemed appropriate by the MSBA.

B. The individual designated by the Eligible Applicant to be in charge of procurement for a project who holds the Massachusetts Certified Public Purchasing Official Program certification shall certify that the public notice and all other documents issued pursuant to the selection of a designer, including, but not limited to, program descriptions and request for

services, have been prepared and issued in conformance with these procedures and Massachusetts General Laws, Chapter 7C, Sections 44 through 58.

Section 4: Master File Brochure and Application

A. Prior to filing an application for any project, designers shall first file a Master File Brochure with the DSP containing the following information:

1. Certification that the applicant, if applying to perform design services other than preparation of studies, surveys, soil testing, cost estimates or programs, is a designer as defined in M.G.L. Chapter 7C, Section 44 paragraph (b);
   **Please refer to M.G.L. Chapter 7C, Section 44 for the definition of Designer. In M.G.L. Chapter 7C, Section 44, "registered" means registered in the Commonwealth of Massachusetts.*

2. The names and addresses of all partners, if a partnership, of all officers, directors and all persons with an ownership interest of more than five per cent in the applicant if not a partnership;

3. The registration number and status of each such person in every jurisdiction in which such person has ever been registered as an architect, landscape architect or engineer;

4. A list of all projects for all public agencies within the Commonwealth for which the applicant has performed or has entered into a contract to perform design services within the five-year period immediately preceding the filing of the information required in this section;

5. A list of all current projects for which the applicant is performing or is under contract to perform any design services; and

6. If the applicant is a joint venture, the information required in this section shall be required for each joint venturer, as well as for the joint venture itself.

B. The DSP shall keep a permanent record of the Master File Brochures. Each designer shall update its Master File Brochure on an annual basis and shall make current the lists of projects required under Section 4(A)(4)-(6) with each application filed.

C. An applicant to perform design, programming or feasibility study services on a project must file, in addition to the Master File Brochure, a written application prescribed by the DSP relating to the applicant's experience, ability, and qualifications.

Every application or Master File Brochure filed shall be sworn to under penalties of perjury. Any applicant who has been determined by the DSP to have filed materially false information shall be disqualified by the DSP from further consideration for any project for such time as the DSP determines is appropriate.

Section 5: Selection Criteria

A. Minimum qualifications shall include:

1. Must be a qualified Designer within the meaning of M.G.L. Chapter 7C, Section 44, employing a Massachusetts registered architect responsible for and being in control of the services to be provided.

   **Please refer to M.G.L. Chapter 7C, Section 44 for the definition of Designer. In M.G.L. Chapter 7C, Section 44, "registered" means registered in the Commonwealth of Massachusetts.*

2. The Massachusetts registered architect responsible for and being in control of the services to be provided for the Designer must have successfully completed the Massachusetts Certified Public Purchasing Official Program seminar "Certification for School Project Designers and Owner's Project Managers," as administered by the Office of the Inspector General of the Commonwealth of Massachusetts, and must maintain certification by completing the "Recertification for School Project Designers and Owner's Project Managers" seminar every three years thereafter. Proof of recertification or registration in the next recertification seminar for which space is available must be provided.

3. The Commonwealth's Affirmative Marketing Program (AMP) established under M.G.L. Chapter 7C, §6, and Governors' Executive Orders helps ensure that minority owned business enterprises (MBE) and women owned businesses (WBE) certified by the Massachusetts Supplier Diversity Office (SDO) have opportunities to participate on DCAMM and other public construction and design projects across the Commonwealth. DCAMM and the SDO announced a series of AMP program changes that will be in effect for state funded municipal projects advertised on or after July 1, 2020. Please see the updates to the AMP here: https://www.mass.gov/info-details/dcamm-amp-2020-program-changes.

   Applicants should subcontract with MBE and WBE, as certified by the SDO. The AMP project specific goals should be set separately, with distinct participation goals set for MBE firm participation and WBE firm participation. Districts should set the project specific MBE and WBE goals prior to advertising for design services and the individual MBE and WBE goals should clearly be set forth in the RFS. This enables participation goals for an individual project to be specifically tailored to the particular project prior to procurement and ensures the goals more accurately reflect the availability of contractors or design professionals.

   The MBEs and WBEs must be selected from those categories of work identified in Item F of the RFS or be assigned to tasks required under Basic Services as specifically set forth in the Contract for Designer Services as amended. Applicants are strongly encouraged to utilize multiple disciplines and firms to meet their separate MBE and WBE participation goals. Consultants to the prime Designer can team within their disciplines in order to meet the separate MBE and WBE participation goals but must state this relationship on the organizational chart (Section 6 of the application form). Applications from MBE and WBE firms as prime designers are encouraged. Where the prime Designer is an SDO certified MBE or WBE, the

Designer must bring a reasonable amount of participation by a firm or firms that hold the certification which is not held by the prime Designer on the project.

B. Other criteria for selection of finalists shall include:

1. Prior similar experience best illustrating current qualifications for the specific project.

2. Past performance of the firm, if any, with regard to public, private, DOE-funded, and MSBA-funded projects across the Commonwealth, with respect to:

   a) Quality of project design.

   b) Quality, clarity, completeness and accuracy of plans and contract documents.

   c) Ability to meet established program requirements within allotted budget.

   d) Ability to meet schedules including submission of design and contract documents, processing of shop drawings, contractor requisitions and change orders.

   e) Coordination and management of consultants.

   f) Working relationship with contractors, subcontractors, local awarding authority and MSBA staff and local officials.

3. Current workload and ability to undertake the contract based on the number and scope of projects for which the firm is currently under contract.

4. The identity and qualifications of the consultants who will work on the project.

5. The financial stability of the firm.

6. The qualifications of the personnel to be assigned to the project.

7. Geographical proximity of the firm to the project site or willingness of the firm to make site visits and attend local meetings as required by the client.

8. Any other criteria that may be required by law or that the DSP considers relevant to the project.

Section 6: Selection Process

A. Cities, towns, regional school districts, and independent agricultural and technical schools subject to these procedures shall not rank or pre-rank applicants. Rankings shall occur only by vote of the DSP in accordance with these procedures and shall occur only after interviews, if allowed by vote of the DSP, have been concluded by the DSP.

B. In the event that, upon reaching the deadline for submission of applications, three or fewer designer applications are received for a project, the Eligible Applicant may choose to modify

the project description, estimated construction cost, program, desired designer qualifications, fee information, or other project information as necessary to attract interested designer applicants and begin the selection process again, starting with re-advertisement pursuant to Section 3: Public Notice. Should the Eligible Applicant choose to proceed with three or fewer designer applications and not re-advertise, the following procedure shall be followed:

1. The Eligible Applicant designee shall submit a statement that explains why the Eligible Applicant may have received three or less applications for the proposed project, The explanation should include but not necessarily be limited to:

    a. A description of the public advertisement including the names of the publications in which the advertisement was placed and the date(s) in which the advertisement was published.

    b. A description of the pre-proposal conference, if any, including the date, time, and location of the conference and names of attendees and the firms they represent.

2. The Eligible Applicant designee and/or the OPM shall contact those design firms that attended the pre-proposal conference/walkthrough but did not submit an application and summarize why an application was not submitted for the proposed project.

3. Legal counsel for the Eligible Applicant (i.e. town counsel or city solicitor) and the individual designated by the Eligible Applicant to be in charge of procurement for a project who holds the Massachusetts Certified Public Purchasing Official Program certification shall certify as to the adequacy and completeness of the procurement activity undertaken by the Eligible Applicant.

4. At the discretion of the chairperson and with the concurrence of the three DSP members representing the Eligible Applicant, the DSP may forego the initial application review and invite all the designer applicants to appear for an interview before the DSP.

C. The DSP may require any number of applicants to:

1. Appear for an interview before the DSP;

2. Present a written proposal to the DSP through the Eligible Applicant; or

3. Participate in a design competition held by the DSP through the Eligible Applicant.

D. The DSP shall use the following procedures to rank three (3) finalists in order of qualifications from among the applicants for a particular project:

1. Prior to a DSP meeting at which the selection of finalists will be made or discussed, each member of the DSP shall be given a copy of each designer's application for his or her review.

2. At the DSP meeting, the DSP shall consider each application alphabetically or by some other method that may be determined by the chairperson from time to time.

3. When recognized by the chairperson, members of the DSP may comment or ask questions related to the selection process or the applications before the DSP.

4. Any potentially disqualifying deficiencies in an application should be noted in the record of the meeting.

5. After each member of the DSP has been given an opportunity to comment or ask questions, at the direction of the chairperson, each member of the DSP who is present shall utilize a ballot form provided by the MSBA to assign points to his or her top three (3) choices in order of qualifications so that each number one choice shall receive three (3) points, each number two choice shall receive two (2) points, and each number three choice shall receive one (1) point. The completed ballot forms shall be signed by each member and submitted to the DSP Administrator who shall tally the total points awarded to each applicant. The chairperson shall then read aloud the total points awarded to each of the applicants. In cases where a DSP meeting is held remotely, or any DSP member(s) attends a DSP meeting remotely, all votes taken at such meeting will be by roll-call vote.

6. Once the point totals have been read aloud by the chairperson, the DSP may request interviews of the applicants with the highest point totals by the following procedure: Upon motion of one of the members, duly seconded by one of the other members, the DSP may vote to interview the applicants with the highest point totals.

7. If the DSP does not vote to conduct interviews, the DSP shall then vote to rank three (3) finalists in order of qualifications. If the DSP votes to conduct interviews, the DSP shall defer the ranking of the three (3) finalists until after the interviews have been concluded.

8. If the DSP votes to conduct interviews, the chairperson shall schedule the time and place of the interviews and written notice shall be given to the firms to be interviewed. Interviews shall be conducted in open session except that the chairperson may order competing firms, their agents and employees, to leave the meeting room during the interviews of their competitors. The MSBA may, within its discretion, develop standard questions to be answered or topics to be discussed by the applicants in the interview. Once the interviews have been concluded, at the direction of the chairperson, the DSP shall award points to the each of the firms in accordance with the procedures set forth in subsection 6(C)(5). Once the point totals have been read aloud by the chairperson, the DSP shall then vote to rank three (3) finalists in order of qualifications

9. In the event of a tie for the first, second or third highest point totals awarded to applicants by the DSP under Section 6(C)(5) or 6(C)(8), the chairperson shall determine, in his or her complete discretion, the procedure by which the tie shall be broken. The chairperson shall then read aloud the total points awarded to each of the applicants. Once the point totals have been read aloud by the chairperson, the DSP shall then vote to rank three (3) finalists in order of qualifications.

Once the DSP has voted to rank the top three (3) firms in order of qualifications, the MSBA shall transmit a list of the three (3) finalists ranked in order of qualifications to the Eligible Applicant along with a record of the final vote of the DSP on the selection and a written statement explaining the DSP's reasons for its ranking of the finalists.

Please be advised that the ranking of potential designer candidates will only be done at the scheduled DSP meeting, with a quorum of Panel members in attendance and only after each application is publicly reviewed and publicly discussed among Panel members. The District DSP members are welcome and encouraged to participate in such discussions, as well as share the results of any local reviews. In addition, interviews of potential candidates, if applicable, will only take place at a scheduled public DSP meeting and only with a quorum of Panel members in attendance.

Section 7: Award of Contract

A. The authority to award a contract for designer services for a project that will receive funding from the MSBA is vested with the Eligible Applicant and subject to the approval of the MSBA.

B. In the selection of a designer when the fee for designer services has been set prior to advertisement, the Eligible Applicant shall appoint a designer from the ranked list transmitted by the MSBA to the Eligible Applicant in the order of qualifications as determined by the DSP. If the Eligible Applicant proposes to select any designer other than the one ranked first by the DSP, it shall file a written justification for the proposed appointment with the DSP and shall not proceed until it has obtained written approval to proceed from the Executive Director.

C. When the fee for designer services is to be negotiated, the Eligible Applicant shall review the list transmitted by the MSBA in the order of qualifications as determined by the DSP and may exclude any designer from the list if a written statement of reasons for the exclusion is filed with the DSP. The Eligible Applicant shall then appoint a designer based upon a successful fee negotiation. The Eligible Applicant shall first negotiate with the first ranked designer remaining on the list. Should the Eligible Applicant be unable to negotiate a satisfactory fee with the first ranked designer within thirty (30) days, negotiations shall be terminated, and negotiations undertaken with the remaining designers, one at a time, in the order in which they were ranked by the DSP, until an arrangement is reached. Should the Eligible Applicant be unable to negotiate a successful fee with any designer initially selected by the DSP, the DSP shall recommend additional finalists in accordance with a procedure to be determined by the chairperson of the DSP that is not inconsistent with the procedures set forth in Section 6(B) above. The Eligible Applicant may require a finalist with whom a fee is being negotiated to submit a fee proposal and to provide current cost and pricing data on the basis of which the designer's fee proposal may be evaluated.

Section 8: Continued or Extended Services

A. The Eligible Applicant may appoint a designer to perform continued or extended services that were not contemplated in the original public notice if the following conditions are met:

    1. A written statement is filed with the DSP explaining the reasons for the continuation or extension of services;

    2. The program for the design services is filed with the DSP;

3. MSBA staff has made a written determination that the request for continued or extended services is otherwise in compliance with the MSBA's regulations, policies, procedures, and guidelines and the provisions of the feasibility study agreement, project scope and budget agreement, and/or project funding agreement, as applicable;

4. The DSP approves the appointment of the designer for continued or extended services and states the reason therefore.

Section 9: Emergency Designer Selection Process

A. If a situation arises in accordance with Chapter 7C, Section 53, which has been declared an "emergency" by the Executive Director, an Eligible Applicant may request an emergency selection of a designer.

B. In consultation with the technical staff of the MSBA, the Eligible Applicant shall prepare a proposed scope of work, an estimate of the cost of construction for the designer's services, and submit this, and any other relevant information to the Executive Director.

C. In lieu of public advertisement, the Executive Director or his/her designee will consult with the Eligible Applicant to select three to six qualified firms who have Master File Brochures on file, to solicit to perform this work.

D. The MSBA staff will poll an ad-hoc committee of three members of the DSP to select at least three qualified finalists and forward the names of the finalists to the Eligible Applicant with a written statement explaining the committee's reasons for its choice(s).

E. The Eligible Applicant will select one of the three finalists to perform the work and forward the name of the selected firm to the DSP with a written statement explaining the reasons for its choice.

Section 10: Statutory Representations by the MSBA

A. The projects of the MSBA and the Eligible Applicants are not subject to the jurisdiction of the Division of Capital Asset Management and Maintenance.

B. The DSP procedures substantially incorporate the procedures required of the Commonwealth's Designer Selection Board in M.G.L. Chapter 7C, Section 45 through 53, inclusive, and Section 55.

ATTACHMENT E

CITY OF MEDFORD

TAX COMPLIANCE CERTIFICATION

Pursuant to M.G.L. c. 62C, §49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

_____ _____

(Date) (Signature of individual submitting bid or proposal)

_____

(Printed name of person signing bid or proposal)

_____

(Name of business)

_____

(Business address)

_____

(Business phone number

MUST BE RETURNED SIGNED WITH THE SEALED PROPOSAL PACKET

CERTIFICATE OF CORPORATE AUTHORITY

1. I hereby certify that I am the Clerk/Secretary of _____
(insert full name of corporation)

2. corporation, and that _____
(insert the name of officer who signed the Contract and bonds)

3. is the duly elected _____
(insert the title of the officer in line 2)

4. of said corporation, and that on _____
(date must be **ON OR BEFORE** the date the officer signed the Contract or bonds)

at a duly authorized meeting of the Board of Directors of said corporation, at which all the directors were present or waived notice, it was voted that

5. _____ the _____
(insert name from line 2) (insert title from line 3)

of this corporation be and hereby is authorized to execute contracts and bonds in the name and on behalf of said corporation, and affix its Corporate Seal thereto, and such execution of any contract of obligation in this corporation's name and on its behalf, with or without the Corporate Seal, shall be valid and binding upon this corporation; and that the above vote has not been amended or rescinded and remains in full force and effect as of the date set forth below.

6. ATTEST: _____ AFFIX CORPORATE
(Signature of Clerk or Secretary)* SEAL HERE

7. NAME: _____
(Please print or type name in line 6)*

8. DATE: _____
(insert a date that is **ON OR AFTER** the date the officer signed the Contract and bonds)

The name and signature inserted in lines 6 & 7 must be that of the Clerk or Secretary of the corporation.

MUST BE RETURNED SIGNED WITH THE SEALED PROPOSAL PACKET

CITY OF MEDFORD

NON-COLLUSION STATEMENT

Any person submitting a Bid or Proposal for the procurement or disposal of supplies and services to any governmental body shall certify in writing, on the Bid or Proposal, as follows:

> "The undersigned certifies under penalties of perjury that this Bid or Proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity or group of individuals."

_____ _____

(Date) (Signature of person signing bid or proposal)

_____

(Printed name of person signing bid or proposal)

_____

(Title)

_____

(Name of Business)

_____

(Business address)

_____

(Business Phone Number)

MUST BE RETURNED SIGNED WITH THE SEALED PROPOSAL PACKET

SIGNATURE PAGE

The applicant hereby certifies that:

1. The applicant has not given, offered, or agreed to give any gift, contribution, or offer of employment as an inducement for, or in connection with, the award of contract for these services.
2. No consultant to, or subcontractor for the applicant has given, offered, or agreed to give any gift contribution or offer of employment to the applicant, or to any other person, corporation, or entity as an inducement for, or in connection with, the award of the consultant or subcontractor of a contract by the applicant.
3. That no person, corporation, or, other entity other than a bona fide full time employee of the applicant has been retained or hired to solicit for or in any way assist the applicant in obtaining the contract for services upon an agreement or understanding that such person, corporation, or entity be paid a fee or other compensation contingent upon the award of the contract to the applicant.

I hereby attest with full knowledge of the penalties for perjury, as in accordance with M.G.L. c. 7C, Sec. 51, that all information provided in this application for services is correct.

_____
Firm

_____
Signee (typed)

_____
Signee (written)

_____
Title

_____
Date

MUST BE RETURNED SIGNED WITH THE SEALED PROPOSAL PACKET