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## **PART 1: INTRODUCTION**

## **INTRODUCTION**

The purpose of the Preliminary Design Program is to define the programmatic, functional, spatial, and environmental requirements of the educational facility necessary to meet the District's educational program, and perform the review and investigation required to clearly define the existing building deficiencies. Based on the District's educational program, we have identified and prepared the educational goals and programmatic space needs for the Newton Cabot Elementary School project. The space needs along with an evaluation of existing conditions and site development requirements have formed our recommendation for an evaluation of alternatives upon which the most educationally appropriate and cost effective solution has been recommended.

## **FACILITY DEFICIENCIES**

The Cabot Elementary School is the oldest school building in Newton still in service as a neighborhood elementary school. The original building built in 1928 was 27,200 GSF. In 1957, an addition of approximately 10,765 GSF was built. This added three classrooms a small library as well as a small gymnasium with a stage. In 1999 two modular classrooms and toilets were added. In 2007 two additional modular classrooms were added for the art and music classrooms. Cabot now contains 45,111 GSF and only 30,141 NFA including the modular classrooms.

The mechanical system is original to the building and is past its useful life. There was a new boiler installed in 2010; however, the HVAC infrastructure has outlived its useful life despite ongoing repairs and preventive maintenance. The steam distribution system has aged to a point where system pressure cannot be maintained without the boiler running on high fire. Additionally, this condition causes a constant makeup water feed, which further deteriorates the piping. One of the main six-inch steam lines runs under the parking lot outside the building for over 100 feet. With no insulation, the portion of the building that this serves is constantly chilly. Steam leaks in the crawl spaces throughout the building produce a constant musty smell. The heating control system has failed. The condensate vacuum system has failed. Corrosion of the steam pipes has reduced inside pipe diameter to the point that there is very little flow or heat transfer. There are no digital controls for the systems and no occupancy sensors for the lighting. The original shingle roof does not meet current energy code requirements. Exterior windows have inefficient single-pane glazing. The building does not have a fire sprinkler system.

The HVAC system is steam fired by gas. There are unit ventilators in classrooms, some with companion exhausters. There is A/C in the office (window units) and modular classrooms. There are two boilers, one original to the building and the other installed in 2010. The burners were replaced in the 1970s. As the result of a 2012 energy conservation project, steam traps were replaced to improve the flow of steam heat throughout the building and a heat timer was installed on the boiler to regulate boiler operation based on outside air temperature.

Despite these improvements there are major heating infrastructure problems including leaking steam pipes, inoperable pneumatic controls, and unit ventilators that have outlived their useful life. Plumbing is original and fixtures are not accessible.

There is no domestic hot water throughout all areas of the building. The domestic water piping is corroded with pitting on the inside and leaks are patched with clamps. There is no fire protection in the school. Electrical service is 600A, three phase, 4 wire, and 120/208V and is over 50 years old. There are insufficient working clearances as well. Also over 50 years old are the circuit breaker panel boards with conduit and the wire feeder. The emergency system is a 10kW gas generator in the boiler room; it serves corridor and stair lighting. Again, there are insufficient working clearances located in a two-hour fire rated room. The fire alarm system is multi-zone but is not ADA compliant. There are smoke detectors in the library and corridors, door holders, and an exterior master box. However, the alarm cannot be heard throughout the building.

Refer to PART 4: EVALUATION OF EXISTING CONDITIONS for a full report on the facility's existing conditions and recommended repairs.

## **PROGRAM DEFICIENCIES**

The size of the facility compromises the required programs which has a direct impact on student learning and instructional best practices. Cabot teachers and specialists have become very creative finding spaces to teach. Many of these "spaces" are tables in the hallway or small closet areas without adequate ventilation or windows. Small group and individual instruction takes place in the hallway which is a distracting environment and potentially stigmatizing for the students. For the students who require small group instruction, the overcrowding has not allowed for comparable learning spaces to larger group instruction. There are no private, quiet spaces for students to focus on learning.

The facility does not have adequate space to accommodate the enrollment currently housed in the school. There are 19 general classrooms with an average size 835 SF. Two Kindergarten classrooms are in the modular classrooms with no bathrooms adjoining these classrooms.

Cabot has one co-taught integrated classroom in Grade 5, which means that there is a regular education teacher, a special education teacher and a fulltime intern in that room. All other classrooms across grades provide inclusion for students with special needs. It is critical to provide small quiet working areas within these classrooms to meet the educational needs of inclusion and integrated students. In addition, there are the following significant space constraints:

- There is a lack of sufficient space during MCAS testing; as a result, all spaces allocated to other grades/specialists are taken.
- Art and Music have both been relocated to a temporary modular building.
- The existing library is considerably undersized at 1,251 SF with very limited
- The gymnasium is significantly undersized at 2,490 SF.
- Stage in the gymnasium is used for storage. There is no fully functioning cafeteria; students eat in a converted classroom.
- There is no cafeteria at the school. A classroom has been converted into a lunch room. Given the size of the lunch room there are six seatings and even then there are two grades that eat lunch in their classrooms.
- Food service warming kitchen was created out of space in the lobby area and is not adjacent to the lunchroom.

- Space for special education is currently at 1,797 SF and is inadequate for the school needs.
- The Literacy Program, English Language Learners, and Math Coach share one room.
- The Learning Center room is shared by two learning center teachers, an occupational therapist, physical therapist and speech/language pathologist.
- There is a lack of meeting space for monthly IEP meetings for the 14 inclusion students and the bi-weekly PLC meetings.
- The staff for mental health services shares one small room creating challenges for testing, counseling individuals and groups and meeting with parents.
- Inclusion Facilitator's office is in a small 15x11 office.
- Special Education quiet room is in the old kitchen space, a small partitioned area in the lobby.
- Storage units for instructional, art and music materials are located in hallways due to small classrooms.
- After School program has no dedicated space and must use the corridors; the After School office shares space with the custodian.

### **MSBA INVITATION**

The MSBA invited Newton Public Schools to conduct a Feasibility Study on March 26, 2014. Refer to the Appendix for the MSBA invitation for a Feasibility Study.

### **DESIGN ENROLLMENT**

As a result of a collaborative analysis with the MSBA for enrollment projections and space capacity needs for the proposed project at the Cabot Elementary School, the City of Newton (District) agrees that the design of the proposed project at the School shall be based on an enrollment of 480 students for grades K - 5.

A copy of the Enrollment Certification is included in the Appendix of this report.

### **CAPITAL BUDGET STATEMENT**

It is important for the MSBA and the district to have a complete understanding of the district's financial resources and ability to support a proposed school project. Refer to the attached Capital Budget Statement included in the Appendix of this report.

Newton voters recognized the need for additional revenues to address pressing unfunded capital needs to provide complete streets, functional schools, and serviceable fire stations. An \$11.5M debt exclusion and operating override were approved in the spring of 2013, addressing improvements valued at over \$140M when calculating the full construction costs: Angier, Zervas and Cabot schools, Fire Station 3, HQs and Wires Division, and roadwork that includes consideration as "Complete Streets". This upfront investment has the added benefits of starting construction while costs are lower, and saving valuable budgetary dollars as less money must then be spent on on-going maintenance or emergency repairs across the capital assets.

The target construction budget for the Cabot Elementary School Project is \$30,000,000 - \$35,000,000 at this phase of the project with a target project budget of \$40,000,000 - \$45,000,000.

## LOCAL PROCESS

The local process began in March 2013 when the School District submitted a Statement of Interest to the MSBA for the Cabot Elementary School. The MSBA invited the City of Newton to participate in a Feasibility Study for this project at the Authority's March 26, 2014 Board Meeting. The Cabot School Building Committee (CSBC) was appointed by the Mayor of the City of Newton and was approved by the MSBA on January 31, 2014. The CSBC voted to appoint the City's Designer Selection Committee for the selection of the OPM on April 17, 2014.

As part of the \$11.5M debt exclusion and operating override were approved in the spring of 2013 the City of Newton appropriated the funding for the Feasibility Study, Design and Construction of the Cabot Elementary School. The search for an Owner's Project Manager (OPM) began in April 2014. The Town selected Joslin Lesser Associates (JLA) in June 2014. On July 11, 2014 the MSBA confirmed this selection and on July 8, 2014 JLA entered into a contract with the City of Newton.

The OPM then worked with the CSBC and MSBA to select a designer. The RFS for designer services was issued on July 23, 2014 and proposals were received on August 8, 2014. The CSBC in collaboration with the MSBA Designer Selection Panel reviewed the submitted proposals and interviewed three firms. At the September 23, 2014 meeting of the MSBA Design Selection Panel, DiNisco Design Partnership was selected as the Architect for the project.

The CSBC formed a Working Group comprised of representatives from the Cabot School Building Committee, School Committee, School Department, Board of Aldermen, Mayor's Office and Public Facilities Department. This group meets with the project team regularly to expedite the review of important project issues. The project team has also met separately with the Assistant Superintendents, Department Heads and Curriculum Coordinators, Building Operations, Public Facilities and the Cabot Elementary School Principal. The project team and District also visited three area MSBA elementary school projects to evaluate precedents and gather design ideas.

In addition to the Cabot School Building Committee, the District has appointed a Design Review Committee whose purview is broader than the Cabot Elementary School project. To expedite approvals and ensure good communication, the CSBC and the DRC meet jointly to review Cabot Elementary School issues. These public meetings, both past and future, are listed on the table below. Note that there is typically a large public attendance at the School Committee meetings which often includes a lengthy public comment segment.

**PART 1 : INTRODUCTION**

<b>Meeting Date</b>	<b>Time</b>	<b>Group</b>	<b>Location</b>	<b>Topic</b>
April 17, 2014	5:00 PM	Cabot School Building Committee, Design Review Committee and Designer Selection Committee	Education Center, 100 Walnut Street, Newton	MSBA Project Process; Role of City Committees, Administrative procedural 7 Submittal Votes by CSBC.
May 21, 2014		Designer Selection Committee		Review and Short List OPM respondents to RFS
May 28, 2014		Designer Selection Committee		Interview and Rank Candidates
October 16, 2014	6:00 PM	Cabot School Building Committee and Design Review Committee	Education Center, 100 Walnut Street, Newton	Introduce the OPM and Designer; overview of communications; schedule; vote to approve CMR; Design Criteria Evaluation Matrix
December 18, 2014	6:00 PM	Cabot School Building Committee and Design Review Committee	Education Center, 100 Walnut Street, Newton	Review evaluation criteria matrix and site planning concepts, site evaluation matrix
January 12, 2015	9:30 AM	School Committee	Education Center, 100 Walnut Street, Newton	Cabot Program discussion
January 15, 2015	6:00 PM	Cabot School Building Committee and Design Review Committee	Education Center, 100 Walnut Street, Newton	Review site evaluation criteria matrix and vote, review PDP
January 20, 2015	7:00 PM	Board of Alderman Meeting	City Hall	Preliminary Design Program (PDP) presentation
February 11, 2015	8:30 AM	School Committee	Education Center, 100 Walnut Street, Newton	Vote to Approve PDP
February 24, 2015	7:30 PM	Cabot School Building Committee and Design Review Committee	Education Center, 100 Walnut Street, Newton	Vote to Submit PDP
March 11, 2015	7:00 PM	Public Forum	Cabot School	Open Public forum for public comments, questions, general review and tour of existing conditions

Meeting Date	Time	Group	Location	Topic
March 12, 2015	6:00 PM	Cabot School Building Committee and Design Review Committee	Education Center, 100 Walnut Street, Newton	Feasibility Study (Preferred SD) Update
April 6, 2015	7:00 PM	Board of alderman and School Committee	City Hall	Feasibility Study, Approve SD
April 9, 2015	6:00 PM	Cabot School Building Committee and Design Review Committee	Education Center, 100 Walnut Street, Newton	Vote to submit Preferred Schematic Design to MSBA
April 22, 2015	6:00 PM	Design Review Committee	Library	Feasibility Study (PSD) update

***The meeting presentation materials, meeting minutes and summary materials as they relate to the Cabot Elementary School project are available locally for public review at:***

Minutes for the CSBC/DRC joint meetings are posted at:

<http://cabot.projects.joslinlesser.com/>

## PROJECT DIRECTORY

A project directory with contact information for representatives of all District stakeholders (e.g., Superintendent, Cabot School Building Committee, School Committee, Local officials, and others involved in the project), Designer (point of contact and key support staff and sub-consultants) and OPM (and key support staff) is included in the Appendix of this report.

## PROJECT SCHEDULE

The current project schedule is as follows:

Cabot School Building Committee vote for Preferred Schematic: **April 9, 2015.**

Submission of Feasibility Study / Preferred Schematic: **April 16, 2015.**

MSBA Facilities Assessment Subcommittee Presentation: **April 29, 2015.**

MSBA Board of Directors meeting for approval to proceed into Schematic Design: **June 3, 2015.**

Projected MSBA Board of Directors meeting for approval of Project Scope and Budget Agreement: **November 18, 2015.**

Projected City vote for Project Scope and Budget Agreement: **December 2015 (the City has approval for full funding of the project).**