SMMA

Project Management

June 21, 2018

Fenton Bradley
Project Manager
Massachusetts School Building Authority
40 Broad Street, Fifth Floor
Boston, Massachusetts 02109

Re: Fuller Middle School Feasibility Study **Framingham, Massachusetts**

District's Response to the Preferred Schematic Report Review Comments *SMMA No. 17050*

Dear Fenton:

Please find the District's Response to the MSBA's Preferred Schematic Report Review Comments of June 7, 2018.

Very truly yours,

SMMA

Joel G. Seeley
Principal

cc: School Building Committee, Jonathan Levi, JLA (MF)

enclosures: District's Response to the Preferred Schematic Report Review Comments of June 7, 2018

1000 Massachusetts Avenue
Cambridge, MA 02138
617.547.5400

www.smma.com

City of Framingham
Fuller Middle School
Preferred Schematic Report
MSBA Review Comment Responses
6/20/18

ATTACHMENT A
MODULE 3 – PREFERRED SCHEMATIC REPORT REVIEW COMMENTS

District: City of Framingham
School: Fuller Middle School
Owner's Project Manager: Symmes Maini & McKee Associates, Inc.
Designer Firm: Jonathan Levi Architects, LLC
Submittal Due Date: May 9, 2018
Submittal Received Date: May 9, 2018
Review Date: May 9- June 5, 2018
Reviewed by: F. Bradley, C. Alles, J. Jumpe

MSBA REVIEW COMMENTS

The following comments[1] on the Preferred Schematic Report submittal are issued pursuant to a review of the project submittal document for the proposed project presented as a part of the Feasibility Study submission in accordance with the MSBA Module 3 Guidelines.

3.3.1 INTRODUCTION

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Overview of the process undertaken since submittal of the Preliminary Design Program that concludes with submittal of the Preferred Schematic Report, including any new information and changes to previously submitted information	☒	☐	☐	☐
2	Summary of updated project schedule, including				
	a) Projected MSBA Board of Directors Meeting for approval of Project Scope and Budget Agreement	☒	☐	☐	☐

	b) Projected Town/City vote for Project Scope and Budget Agreement	☒	☐	☐	☐
	c) Anticipated start of construction	☒	☐	☐	☐
	d) Target move in date	☒	☐	☐	☐
3	Summary of the final evaluation of existing conditions	☒	☐	☐	☐
4	Summary of final evaluation of alternatives	☐	☒	☐	☐
5	Summary of District's preferred solution	☒	☐	☐	☐
6	A copy of the MSBA Preliminary Design Program project review and corresponding District response	☒	☐	☐	☐

MSBA Review Comments:

4) Although a detailed "Concept Options Evaluation Matrix" was included, it is noted that subsequent to receiving this submittal, the MSBA requested additional information that further describes and summarizes the Final Evaluation of Options. Information was requested for each option identified in the preferred schematic phase including a detailed narrative that clearly documents the reason(s) why each option was eliminated from further consideration. Please acknowledge.

Response: Please see attached Options Evaluation Memo

3.3.4 PREFERRED SOLUTION

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
1	Educational Program				
	a) Summary of key components and how the preferred solution fulfills the educational program	☐	☒	☐	☐
	b) Design responses including desired features and/or layout considerations	☒	☐	☐	☐
	c) Proposed variances to, and benefits of, any changes to the current grade configuration (if any) and a related transition plan	☐	☐	☐	☐
2	Preferred Solution Space Summary				
	a) Updated MSBA Space Summary spreadsheet	☐	☒	☐	☐
	b) Itemization and explanation of variations from the initial space summary (and MSBA review) included in the Preliminary Design Program	☒	☐	☐	☐
3	Preliminary NE-CHPS or LEED-S scorecard	☐	☒	☐	☐

	Provide the following Items	Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
4	Conceptual floor plans of the preferred solution, in color that are clearly labeled to identify educational spaces	☒	☐	☐	☐
5	Clearly labeled site plans of the preferred solution including, but not limited to:				
	a) Structures and boundaries	☒	☐	☐	☐
	b) Site access and circulation	☒	☐	☐	☐
	c) Parking and paving	☒	☐	☐	☐
	d) Zoning setbacks and limitations	☒	☐	☐	☐
	e) Easements and environmental buffers	☐	☒	☐	☐
	f) Emergency vehicle access	☒	☐	☐	☐
	g) Safety and security features	☒	☐	☐	☐
	h) Utilities	☐	☐	☒	☐
	i) Athletic fields and outdoor educational spaces (existing and proposed)	☐	☒	☐	☐
	j) Site orientation	☒	☐	☐	☐
6	An overview of the Total Project Budget and local funding including the following:				
	a) Estimated total construction cost	☐	☒	☐	☐
	b) Estimated total project cost	☐	☒	☐	☐
	c) Estimated funding capacity	☒	☐	☐	☐
	d) List of other municipal projects currently planned or in progress	☒	☐	☐	☐
	e) District's not-to-exceed Total Project Budget	☒	☐	☐	☐
	f) Brief description of the local process for authorization and funding of the proposed project	☒	☐	☐	☐
	g) Estimated impact to local property tax, if applicable	☒	☐	☐	☐
	h) Completed MSBA Budget Statement	☐	☒	☐	☐
7	Updated Project Schedule including the following projected dates:				
	a) Massachusetts Historical Commission Project Notification Form	☒	☐	☐	☐
	b) MSBA Board of Directors meeting for approval to proceed into Schematic Design	☒	☐	☐	☐

Provide the following Items		Complete; *No response required*	Provided; *District's response required*	Not Provided; *District's response required*	Receipt of District's Response; *To be filled out by MSBA Staff*
c)	MSBA Board of Directors meeting for approval of project scope and budget agreement and project funding agreement	☒	☐	☐	☐
d)	Town/City vote for project scope and budget agreement	☒	☐	☐	☐
e)	Design Development submittal date	☒	☐	☐	☐
f)	MSBA Design Development Submittal Review (include required 21-day duration)	☒	☐	☐	☐
g)	60% Construction Documents submittal date	☒	☐	☐	☐
h)	MSBA 60% Construction Documents Submittal Review (include required 21-day duration)	☒	☐	☐	☐
i)	90% Construction Documents submittal date	☒	☐	☐	☐
j)	MSBA 90% Construction Documents Submittal Review (include required 21-day duration)	☒	☐	☐	☐
k)	Anticipated bid date/GMP execution date	☒	☐	☐	☐
l)	Construction start	☒	☐	☐	☐
m)	Move-in date	☐	☐	☒	☐
n)	Substantial completion	☒	☐	☐	☐

MSBA Review Comments:

1a) The submittal indicates the District may develop a new school scheduling method as the school transitions to a S.T.E.A.M. model. Please note that modifying the school scheduling method may change the building's utilization rate. In response to these review comments, please list alternative scheduling methods that may be proposed as the school transitions to a S.T.E.A.M. model.

Response: As the school transitions to a STEAM model, the Fuller administration will consider modified block and block schedules as ways to provide longer periods of time for student learning experiences. Alternatively, the administration will consider providing teacher teams with the flexibility to determine the use of instructional time to cater to the needs of individual projects. With that said, there is no predicted net change to the utilization of space under any of these scheduling methods.

The information provided also indicates that the nine ELL classrooms and nine science classrooms proposed by the District will be occupied for classroom instruction four out of the six scheduling blocks. It appears that based on the information provided, this may result in a utilization rate of 66% for these spaces. The MSBA notes that the overall utilization associated with the proposed program is approximately 64% inclusive of academic classrooms, art room, and the three vocations and

technology spaces. Further, if one of two gym stations and one of the two music rooms is in use, and a class is conducting research in the media center, then the overall utilization drops below 60%. Please note the MSBA targets an overall utilization rate of 85%. Please seek additional opportunities to increase efficiencies by reducing the overall number of classrooms; and increase flexibility and utilization by furnishing 'Maker Space' features into the science classrooms and reducing project areas in the common areas by providing larger science classrooms; in addition, indicate the average class sizes that will be anticipated for the English Second Language and Transitional Bilingual Education classes.

Response: The Educational Program has been revised to reduce the number of Science Rooms to 6 rather than the originally proposed 9 Science Rooms. Under this new configuration, every Science Room will be at 100% utilization. If the Maker Space equipment is added to the Science Rooms, it becomes virtually inaccessible to anyone other than the Science teachers during the day. This would contradict the Educational Program since the expectation is that all staff--not just Science teachers--should be providing students with the appropriate tools for their projects. Furthermore, the Technology Education teacher would also need this equipment for various units of instruction but would need to displace Science teachers in order to conduct these lessons. This creates an inequity of access for staff and students. To ensure proper use and maintenance of the equipment, the district has invested in a STEAM coach to support staff in the use of the Maker Space. The average class size for Transitional Bilingual Education Classes is 20 and for English Second Language classes is 22.

Please see attached revised Educational Program (2 versions: one indicating revisions from PSR submission and one "clean copy").

2a) Please refer to detailed comments in "Attachment B". Additionally, MSBA staff has updated its space summary template to include a new section titled Non-Programmed Spaces, which includes the following categories:

- *Other occupied rooms;*
- *Unoccupied MEP spaces;*
- *Unoccupied closets, supply rooms, and storage rooms;*
- *Toilet rooms;*
- *Circulation, which includes: corridors, stairs, ramps, and elevators; and*
- *Remaining areas, which includes exterior walls, interior partitions, chases, and other areas not listed above.*

Areas associated with the 'non-programmed spaces' are required for schematic design and all subsequent submittals that include a space summary. Please see Project Advisory 52 for additional information. Please acknowledge.

Response: Acknowledged. Non-programmed areas will be documented for Schematic Design and subsequent submittals per Project Advisory 52.

3) The submittal indicates a total goal of 43 credits using USGBC LEED-V4, including 6 credits in the Energy & Atmosphere "Optimize Energy Performance" category. Note that 43 points in LEED-V4

reaches the minimum required for all MSBA core projects. The proposed credits in 'Optimize Energy' are below the apparent threshold to achieve the minimum requirements (exceeding code by 20%) required applying additional (provisional) incentives to the District's reimbursement rate, additional information is required. If the District intends that MSBA provide a grant that includes the 2% additional reimbursement in the following project Scope and Budget phase of the study, please provide detailed information that illustrates how the minimum thresholds intend to be achieved.
Refer to MSBA Project Advisory #41"Update to the MSBA's Sustainable Building Design Policy" for more information. Acknowledge and confirm the District's intent and that the proposed project will be designed to meet or exceed the criteria set forth in project Advisory #41.

Response: Acknowledged. The proposed project will be designed to meet or exceed the criteria set forth in project Advisory #41 to qualify for the 2% additional reimbursement. Please see attached revised LEED scorecard.

5e) In response to these review comments, please confirm whether or not easements exist on the site that may impact further site development for a potential project.

Response: no easements have been located on record that may impact further site development for a potential project.

5h) Not provided. Please submit.

Response: Please see attached Utility Location Plan

5i) Provide information associated with the proposed outdoor education spaces in subsequent submissions. Please acknowledge.
Response: acknowledged. Information associated with the proposed outdoor education spaces shall be provided in subsequent submissions.
6a, b) Subsequent to receiving this submittal, the MSBA requested additional information associated with the increased estimated project costs from the Preliminary Design Program (PDP) phase to the Preferred Schematic Report (PSR) phase, including, but not limited to a high level description and summary of any changes in project scope, square footage, and site development. It is noted MSBA received the requested information on May 18, 2018 by email. Please incorporate this information as part of the response to these review comments.

Response: Please see attached Supplemental Information on Project Costs

6h) A budget statement was included with this submittal; however the post-construction budget column has not been completed. Please complete and submit to MSBA.

Response: Please see attached Budget Statement

7m) Not provided. Please submit.

Response: Please see attached Project Schedule

- *The MSBA offers the following information to assist the District and its Owner's Project Manager in completing the total project budget template that is required as part of its Schematic Design submittal.*

    - *The MSBA issues project advisories from time to time, as informational updates for Districts, Owner's Project Managers ("OPM"), and Designers in an effort to facilitate the efficient and effective administration of proposed projects currently pending review by the MSBA. The advisories can be found on the MSBA's website. In response to these review comments, please confirm that the District's consultants have reviewed all project advisories and they have been incorporated into the proposed project as applicable.*

      Response: Confirmed

    - *The District must include negotiated costs for OPM and Designer fees for the remainder of the project as part of their Total Project Budget. In response to these review comments, please confirm that the District and its consultants will negotiate fees for the remainder of the project that are to be included in the District's Schematic Design documents to the MSBA.*

      Response: Confirmed. The District and its consultants will negotiate fees for the remainder of the project that are to be included in the District's Schematic Design documents to the MSBA.

End

ATTACHMENT B
MODULE 3 – PREFERRED SCHEMATIC SPACE SUMMARY REVIEW

District: City of Framingham
School: Fuller Middle School
Owner's Project Manager: Symmes Maini & McKee Associates, Inc.
Designer Firm: Jonathan Levi Architects, LLC
Submittal Due Date: May 9, 2018
Submittal Received Date: May 9, 2018
Review Date: May 9- June 5, 2018
Reviewed by: F. Bradley, C. Alles, J. Jumpe

The MSBA review comments are as follows:

- **Core Academic** – The District is proposing to provide a total of 45,170 net square feet (nsf) which exceeds the MSBA guidelines by 13,590 nsf. The proposed area in this category decreased by 2,400 nsf since the Preliminary Design Program submittal.

The MSBA offers the following comments regarding the proposed program:

- (21) 900 nsf general classrooms, and (9) 900 nsf ELL classrooms which exceeds the MSBA guidelines by (8) classrooms and 6,100 nsf.
- (9) Science classrooms which is 3,150 nsf and (3) classrooms in excess of the guidelines.

Based on the information provided along with the District's reported high percentage of non-English speaking students, the MSBA understands the need to provide educational spaces to support delivery of this curriculum and student support services; however, the proposed program includes (39) academic classrooms, (11) beyond the (28) include in the guidelines. This significantly contributes to the 13,590 nsf overage proposed for this category, and to an overall program with a utilization rate below 65% (refer to Attachment A Section 3.3.4 for more information). Please review the proposed program and seek opportunities to increase the efficiency of the proposed program.

- (9) Science Prep rooms which is 240 nsf and (3) rooms in excess of the guidelines.
- (5) Science Teacher Planning rooms which is 450 nsf and (5) rooms in excess of the guidelines.

The MSBA looks to the district and its Designer to continue to explore opportunities to provide shared spaces that can support delivery of the science curriculum in a more efficient program.

Response: Please see attached revised Space Summary Template. In order to increase the efficiency of the program and overall utilization rate of the proposed Fuller School, the district proposes to reduce the number of ELL classrooms from (9) to (6) and the number of Science Classrooms from (9) to (6), along with corresponding reductions in Teacher Planning and Science Prep rooms. These changes will be incorporated in the Schematic Design Submittal.

- (15) 90 nsf Teacher Planning rooms which is 1,350 nsf in excess of the guidelines. Based on the information provided the MSBA accepts this variation to the guidelines. (For clarification, please indicate where larger 'Teacher Workstations' are located on the conceptual plans and further describe how theses spaces differ from the proposed Teacher Planning rooms).

  Response: Understood and agreed. The larger "Teacher Work Rooms" are centralized within each cohort and are shared by all staff serving that cohort. They support small conferences for professional development, itinerant teachers, and large workspace for teacher printing and assembly. The small teacher planning spaces adjoin and support individual classrooms and take the place of the traditional fixed "Teacher's Desk" area in the classroom. This gives the classroom itself much greater flexibility to accommodate several alternative furniture configurations. Additionally, the teacher planning spaces are shared by 2 or more teachers using the

adjacent classrooms, facilitating coordination and joint projects between the classrooms, which are designed with movable walls to be opened up to each other when desired.

- (3) Small Group Seminar/Resource spaces which is (1) space and 200 nsf beyond that included in the guidelines. Prior to the MSBA accepting this variation to the guidelines please provide additional information that demonstrates why purpose of these spaces could not be met in the media center, conference room, one of the three teacher workrooms, a classroom or one of the student cohorts when not in use by the students.

  Response: Please see revised Space Summary Template. In order to increase efficiency, (2) of the (3) Small Group Seminar/Resource spaces have been deleted, with those functions now proposed to be served in the remaining Small Group Seminar/Resource Room, centralized to be shared by all staff, and the (3) Teachers' Work Rooms (enlarged from 200 sf to 300 sf each)

- **Art and Music** – The District is proposing to provide a total of 3,650 nsf which exceeds the MSBA guidelines by 400 nsf. Based on the information provided, which documents and supports a high student participation in the music program, and the future combining of the concert band and orchestra, the MSBA accepts this variation to the guidelines. The District should continue to seek ways to reduce overall area to align with guidelines. Please note that in subsequent submissions the MSBA will consider area beyond 400 nsf in excess of guidelines as ineligible for reimbursement. Please acknowledge.

  Response: Acknowledged

- **Vocations &Technology** – The District is proposing to provide a total of 4,150 nsf which is below the MSBA guidelines by 2,250 nsf. The proposed area in this category has not changed since the Preliminary Design Program submittal. Based on the information provided the District's intent is to include (3) Cohort Commons spaces totaling 4,353 nsf in the Media Center category, and reducing the square footage in this category by 2,250 nsf. The MSBA accepts this variation to the guidelines. Please note that MSBA will consider area beyond 4,150 nsf in this category as ineligible for reimbursement. Please acknowledge.

  Response: Understood and agreed. Please see attached revised Space Summary Template. In order to increase the efficiency of the program and overall utilization rate of the proposed Fuller School, the district proposes to delete (1) Tech Classroom and design the Fab Lab to be able to accommodate the Tech Classroom functions as well as Fabrication functions.

- **Media Center** – The District is proposing to provide a total of 6,250 nsf which exceeds the MSBA guidelines by 2,247 nsf. The proposed area in this category has increased by 4,350 nsf since the Preliminary Design Program submittal. This increase is due to the District moving (3) Cohort Commons spaces from the core academic category. The MSBA does not object to the District combining the 2,250 not used under the vocations and technology category with area allocated to this category to allow for the proposed cohort common spaces. Square footage in

excess of the 6,250 nsf will be considered ineligible for reimbursement. Refer to vocations and technology above for additional information. Do not adjust MSBA guidelines in future space summary submittals just indicate the District's intent. Please acknowledge.

Response: Understood and agreed.

Please note the MSBA released an updated space summary template Project Advisory #52. This new template will be required to be used for the Schematic Design submittal. Please acknowledge.

Response: Acknowledged. Updated template will be used for Schematic Design per Project Advisory 52.

Attachments

1. MSBA response memo - Options Evaluation
2. Updated LEED Scorecard
3. Site Utility Plan
4. Supplemental Information on Project Costs
5. Budget Statement
6. Project Schedule
7. Updated Space Summary Template
8. Updated Education Program (showing revisions)
9. Updated Education Program (clean copy)

Jonathan Levi Architects, LLC
266 beacon street boston ma 02116 tel 617.437.9458 fax 617.437.1965 www.leviarc.com

Memorandum

18 May 2018

To: Mr. Fenton Bradley
Project Manager
Massachusetts School Building Authority
40 Broad Street
Boston, MA 02109

From: Jonathan Levi

Re: Feasibility Study for Fuller Middle School
Description of Option Rejection Rationale

The Fuller School Building Committee's process for evaluation of alternatives and, specifically, its rationale for the rejection of alternatives is best summarized in the 'Concept Options Evaluation Matrix' document (attached) which, in addition to the evaluation narratives, accompanies this section of the full PSR submission. The submitted matrix is a record of a 'live' document which was prepared in draft form by the design team and then discerned, deliberated and updated in real time by committee members during the decisive April 30, 2018 meeting which concluded the PSR phase.

Highlights of the evaluations recorded in the matrix which resulted in the rejection of alternatives are as follows:

<u>Option 0 - 'Full Renovation'</u>

Disadvantages:

- Radical cost premium
- Extended schedule due to phasing and swing space
- Negative impact to education in modular classroom school during construction
- Poor fit to educational program
- Inferior long term maintenance and operating costs
- Sub-optimal sustainability potential

<u>Option A - 'Addition/Renovation'</u>

Disadvantages:

- Cost premium
- Extended schedule due to phasing
- High negative impact to education due to occupied construction

- Sub-optimal fit to educational program
- Sub-optimal long term maintenance and operating costs
- Increased risk due to potential hidden conditions
- Reduced design scope flexibility
- Reduced future cohort grouping flexibility
- Poor campus relationships due to remote parking and lack of shared open space

Option B -' Tree Branches'

Disadvantages:

- Increased construction impact to neighbors due to closeness to street
- Lack of campus open space connecting district facilities
- Poor future cohort grouping flexibility due to isolated wings
- Sub-optimal visible learning environment due to isolated wings
- Sub-optimal STEAM configuration due to separate wing STEAM areas
- Comparatively large footprint resulting in diminished open space
- Less optimal solar orientation

Option D – Butterfly

Disadvantages:

- Increased construction impact to neighbors due to closeness to street
- Lack of campus open space connecting district facilities
- Poor future cohort grouping flexibility due to isolated wings
- Sub-optimal visible learning environment due to isolated wings
- Sub-optimal STEAM configuration due to separate wing STEAM areas
- Comparatively large footprint resulting in diminished open space
- Less optimal solar orientation
- Reduced design scope flexibility due to embedded auditorium

FULLER MIDDLE SCHOOL

Concept Options Evaluation Matrix

RATINGS:

+	Advantageous
-o-	Neutral
-	Disadvantageous
- -	Very Disadvantageous

	Option 0 Repair to Code Baseline	Option A Add / Reno	Option B Tree Branch New Constr.	Option C Folded Hands New Constr.	Option D Butterfly New Constr.	Comments
PROJECT EVALUATION CRITERIA						
1 Total Project Cost	- -	-	+	+	+	See costs below
2 Schedule	- -	-	+	+	+	Renovation options will require phasing and additional construction time. Swing space requires additional time
3 Construction Impact to Education	- -	-	+	-o-	+	Swing space will be disruptive and smaller than current Fuller use
4 Construction Impact to Campus and Neighbors	-o-	-	-	+	-	Swing space / trailers will be disruptive to neighbors. Options A, B and D close to Flagg Drive so potentially disruptive
5 Educational Program Accommodation	- -	-o-	+	+	+	Options vary on ability to provide 3 appropriate cohort locations and identity
6 Flexibility-Fixed Classroom Count per Cohort	-o-	-	-	+	-	Option C allows each cohort to increase or decrease the number of SPED and general classrooms because they are not aggregated in a defined wing or floor.
7 STEM Enhancement-Visible learning	- -	-	-o-	+	-o-	Open atrium has greatest visibility within and between cohorts. All options to facilitate project based learning.
8 Flexibility-Building Systems	- -	-	+	+	+	New construction would be designed for flexible use and improved MEP accessibility
9 Open Space /Building Massing / Footprint	- -	-	-o-	+	-o-	3 story Option C has smallest footprint, resulting in largest open area.
10 Security	- -	-o-	+	+	+	All options A-D would be substantially more secure than existing
11 Community Use	-o-	-	+	+	+	All alternatives allow community use. New Construction options allow increased access to playfields.
12 Academic Campus	-	-	-o-	+	-o-	Locating Fuller closer to Farley and McCarthy improves ability to create identifiable campus. Option C most successful.
13 Outdoor Theater	-o-	-o-	-o-	+	-o-	South-facing sloped outdoor space inherent in Option C design
14 Natural Light and Views	- -	-o-	+	+	+	one-story "Pancake" massing creates interior rooms with limited access to windows
15 LEED / Sustainability	-	-o-	-o-	+	-o-	Option C has best solar orientation
16 Risk	- -	- -	+	+	+	Options requiring renovation and/or swing space have more inherent risk due to unforeseen conditions
17 Long Term Maintenance and Repair Costs	-	-o-	+	+	+	3 story Option C has smallest roof area.
18 Operating Costs	-	-o-	+	+	+	Solar orientation and ext skin quantity impact energy loads
19 Design Scope Flexibility	- -	- -	+	+	-	Options B and C would most readily allow a modification to the Auditorium and/or Gym size in upcoming Schematic Design phase
Total GSF	**196,000**	**167,000**	**154,000**	**154,000**	**154,000**	
Swing Space Cost ($Million)	**$6**	**$2**	-	-	-	Option 0 would require swing space at Farley. Option A could have swing space in Fuller. Other options require no swing space.
Order of Magnitude Project Cost ($Million)	**$131**	**$117**	**$111**	**$110**	**$111**	This existing building is particularly expensive to renovate due to its construction assembly and degree of deterioration
MSBA Share		**$49**	**$44**	**$44**	**$44**	
Framingham Share	**$131**	**$68**	**$67**	**$66**	**$67**	

LEED for Schools v4
Project Scorecard

Project Name: Fuller Middle School
Project Addres: 31 Flagg Dr, Framingham MA
Date Updated: June 19, 2018

Phase	Yes	?	No			
	1	0	0		**Integrative Process**	1
D	1			Credit 1	**Integrative Process**	1

	Yes	?	No			
	1	6	8		**Location & Transportation**	15
D			N/A	Credit 1	**LEED for Neighborhood Development Location**	15
D	1			Credit 2	**Sensitive Land Protection**	1
D			2	Credit 3	**High Priority Site**	2
D		2	3	Credit 4	**Surrounding Density and Diverse Uses**	5
D		1	3	Credit 5	**Access to Quality Transit**	4
D		1		Credit 6	**Bicycle Facilities**	1
D		1		Credit 7	**Reduced Parking Footprint**	1
D		1		Credit 8	**Green Vehicles**	1

	Yes	?	No			
	4	7	1		**Sustainable Sites**	12
C	Y			Prereq 1	**Construction Activity Pollution Prevention**	Required
D	Y			Prereq 2	**Environmental Site Assessment**	Required
D	1			Credit 1	**Site Assessment**	1
D		2		Credit 2	**Site Development - Protect or Restore Habitat**	2
D		1		Credit 3	**Open Space**	1
D		3		Credit 4	**Rainwater Management**	3
D	1	1		Credit 5	**Heat Island Reduction**	2
D	1			Credit 6	**Light Pollution Reduction**	1
D			1	Credit 7	**Site Master Plan**	1
D	1			Credit 8	**Joint Use of Facilities**	1

	Yes	?	No			
	5	5	2		**Water Efficiency**	12
D	Y			Prereq 1	**Outdoor Water Use Reduction**	Required
D	Y			Prereq 2	**Indoor Water Use Reduction**	Required
D	Y			Prereq 3	**Building-level Water Metering**	Required
D	2			Credit 1	**Outdoor Water Use Reduction**	2
D	2	5		Credit 2	**Indoor Water Use Reduction**	7
D			2	Credit 3	**Cooling Tower Water Use**	2
D	1			Credit 4	**Water Metering**	1

	Yes	?	No			
	#	#	2		**Energy & Atmosphere**	31
C	Y			Prereq 1	**Fundamental Commissioning and Verification**	Required
D	Y			Prereq 2	**Minimum Energy Performance**	Required
D	Y			Prereq 3	**Building-level Energy Metering**	Required
D	Y			Prereq 4	**Fundamental Refrigerant Management**	Required
C	5	1		Credit 1	**Enhanced Commissioning**	6
D	#	5		Credit 2	**Optimize Energy Performance**	16
D	1			Credit 3	**Advanced Energy Metering**	1
C			2	Credit 4	**Demand Response**	2
D		3		Credit 5	**Renewable Energy Production** (1%/5%/10%)	3
D		1		Credit 6	**Enhanced Refrigerant Management**	1
C		2		Credit 7	**Green Power and Carbon Offsets** (50%/100%)	2

	Yes	?	No		Materials & Resources	13
D	Y			Prereq 1	**Storage & Collection of Recyclables**	Required
C	Y			Prereq 2	**Construction and Demolition Waste Management Planning**	Required
C	3		2	Credit 1	**Building Life-cycle Impact Reduction**	5
C	1		1	Credit 2	**Building Product Disclosure and Optimization**-Environmental Product	2
C		1	1	Credit 3	**Building Product Disclosure and Optimization**-Sourcing of Raw Matls.	2
C		1	1	Credit 4	**Building Product Disclosure and Optimization**-Material Ingredients	2
C	2			Credit 5	**Construction and Demolition Waste Management**	2

	Yes	?	No		Indoor Environmental Quality	#REF!
	#	5	1			
D	Y			Prereq 1	**Minimum IAQ Performance**	Required
D	Y			Prereq 2	**Environmental Tobacco Smoke (ETS) Control**	Required
D	Y			Prereq 3	**Minimum Acoustical Performance**	Required
D	2			Credit 1	**Enhanced IAQ Strategies**	2
C	1	1	1	Credit 2	**Low-Emitting Materials** (3/5/6)	3
C	1			Credit 3	**Construction IAQ Management Plan**	1
C	1	1		Credit 4	**IAQ Assessment**	2
D		1		Credit 5	**Thermal Comfort**	1
D	1	1		Credit 6	**Interior Lighting**	2
D	2	1		Credit 7	**Daylight**	3
D	1			Credit 8	**Quality Views**	1
D	1			Credit 9	**Acoustic Performance**	1

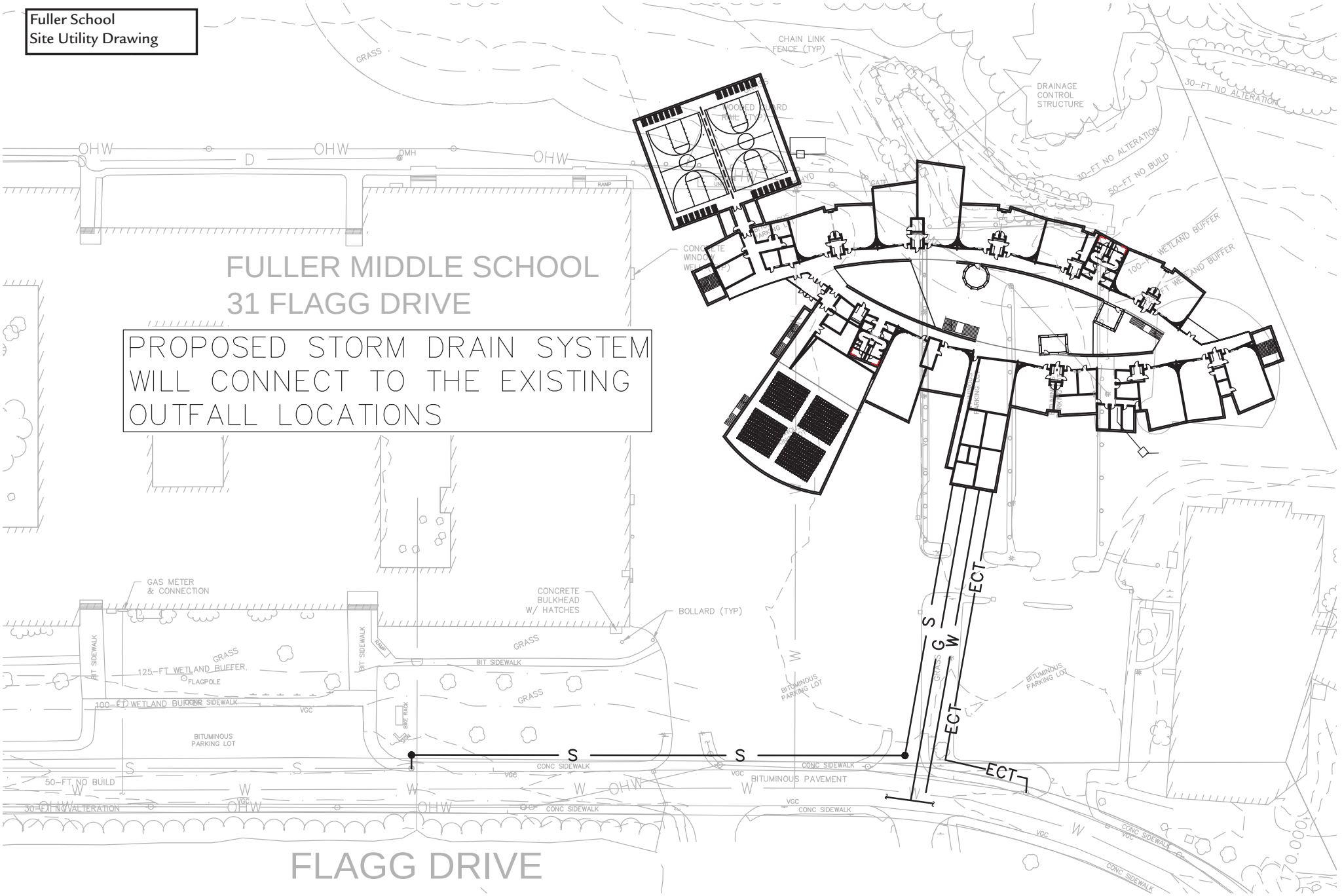
	Yes	?	No		Innovation	6
	3	3	0			
D	1			Credit 1	**Innovation: TBD**	1
D		1		Credit 2	**Innovation: TBD**	1
D		1		Credit 3	**Innovation: TBD**	1
C	1			Credit 4	**Innovation: EP**	1
C		1		Credit 5	**Innovation: Pilot Credit**	1
C	1			Credit 6	**LEED Accredited Professional**	1

	Yes	?	No		Regional Priority Credits - earn up to 4 points	4
		1		Credit 1	**EAc5 Renewable Energy Production (2pt / 3%)**	1
		1		Credit 2	**WEc2 - Indoor Water Use Reduction (4 pts)**	1
	1			Credit 3	**MRc1 Building Life-Cycle Impact Reduction (2pts)**	1
		1		Credit 4	**EAc2 Optimize Energy Performance (8pts)**	1
			N/A	*Credit 5*	*SSc4 - Rainwater Management (2 pts)*	
			N/A	*Credit 6*	*LTc3 - High Priority Site (2 Pts)*	

Yes	?	No	Project Totals (Certification Estimates)	110
#	#	#		

Certified: 40-49 points, **Silver:** 50-59 points, **Gold:** 60-79 points, **Platinum:** 80+ pc

Fuller School
Site Utility Drawing



SMMA

Project Management

Memorandum

To: Fenton Bradley
Project Manager
Massachusetts School Building Authority
40 Broad Street
Boston, MA 02109

From: Joel Seeley
Project: Feasibility Study for the Fuller Middle School
Re: Project Cost Increase
Distribution: School Building Committee, JLA, (MF)

Date: 5/18/2018
Project No.: 17050

This memorandum provides an overview of the increases in the total project costs from the Preliminary Design Program (PDP) phase submission to the Preferred Schematic Report (PSR) phase submission for Options B, C and D.

The PDP phase Options B.2, C.2 and D correspond to the PSR phase Options B, C and D.

The changes in the total project costs can be attributed to six distinct project areas: 1) the addition of a 750 seat auditorium or in the case of Option B increasing the auditorium from 650 seats to 750 seats, 2) increases in the site work costs due to a combination of under estimating the scope in the PDP phase and the addition of soil remediation work for the building foundation system as a result of the soil borings performed in the PSR phase, 3) the complexities of demolishing the existing building were better understood in the PSR phase, 4) increasing the gymnasium size from 6,500 net square feet to 8,300 net square feet, 5) providing air conditioning throughout the school, and 6) more developed building design and systems information. The breakdown of the cost increases is as follows:

Total Project Cost Increase Breakdown			
	Option B	**Option C**	**Option D**
Auditorium	$3M	$10M	$10M
Site Work	$7M	$7M	$7M
Building Demolition	$1M	$1M	$1M
Larger Gymnasium	$2M	$2M	$2M
Full Air Conditioning	$1M	$1M	$1M
Building Cost	$2M	$1M	$2M
Total	**$16M**	**$22M**	**$23M**

1000 Massachusetts Avenue
Cambridge, MA 02138
617.547.5400

www.smma.com

The City has determined that the project scope included for the PSR phase Options B, C and D meets the needs of the Fuller Middle School and understands that the auditorium and area of the enlarged gymnasium would represent project costs ineligible for MSBA reimbursement.

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Budget Statement for Preferred Schematic - Expenditures

As reported on the school district's most recent three end of year information, please updated to the 3 latest fiscal year periods and complete the fields below.													
	2014-2015 FY2015		2015-2016 FY2016		2016-2017 FY2017		Change from Previous Year		Post-Constuction Budget		New Facility vs. Current	
Category	Staff (FTE)	Budget	Staff (FTE)	Budget	Staff	Budget	Staff (FTE)	Budget	Staff	Budget	Staff (FTE)	Budget
Salaries												
Administration												
Admin. Secretary	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Assistant Principal	1.00	110,221	1.00	118,740	1.00	123,371	0.00	4,631	2.00	260,000	1.00	136,629
Business Office	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Curriculum Director/Coord.	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Custodians/Maintenance Staff	6.00	284,180	7.00	333,944	6.00	356,550	-1.00	22,606	7.00	430,000	1.00	73,450
Executive Secretary	3.00	132,616	3.00	134,012	3.00	138,967	0.00	4,955	3.00	142,000	0.00	3,033
Facilities Manager	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Guidance	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Adjustment Counselor	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Guidance Counselors	5.00	304,937	4.50	316,913	4.00	334,156	-0.50	17,243	5.00	425,000	1.00	90,844
Guidance Director	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Legal	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Nurse	1.00	45,580	1.00	47,192	1.00	51,159	0.00	3,967	1.00	54,000	0.00	2,841
Other	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Principal	1.00	116,150	1.00	125,000	1.00	130,362	0.00	5,362	1.00	135,000	0.00	4,638
Special Education Admin	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Superintendent/Asst. Superintendent	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Transportation	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Treasurer	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Total Administration	**17.00**	**993,684**	**17.50**	**1,075,801**	**16.00**	**1,134,565**	**-1.50**	**58,764**	**19.00**	**1,446,000**	**3.00**	**311,435**
Instruction - Teaching Services												
Arts	1.00	51,706	1.00	78,145	1.00	83,222	0.00	5,077	1.50	125,000	0.50	41,778
Business	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Communications	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Coping Instructor	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Culinary Arts	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
ELL	9.00	695,426	11.00	779,909	14.00	944,521	3.00	164,612	16.00	1,100,000	2.00	155,479
English Language	5.00	320,694	4.00	281,757	6.00	399,925	2.00	118,168	7.00	470,000	1.00	70,075
Family Consumer Services	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Foreign Language	3.00	193,403	3.00	176,009	3.00	207,677	0.00	31,668	4.00	285,000	1.00	77,323
Health Services	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
History & Social Science	6.50	373,279	5.25	360,473	5.25	379,789	0.00	19,316	6.25	460,000	1.00	80,211
Instructional Assistant/Paraprofessionals	1.50	52,940	1.50	53,037	0.50	27,013	-1.00	(26,024)	3.00	110,000	2.50	82,987
Library/Media	0.00	7,444	0.00	7,482	0.00	9,088	0.00	1,606	1.00	70,000	1.00	60,912
Mathematics	6.50	433,701	6.50	455,376	6.50	459,334	0.00	3,958	8.00	580,000	1.50	120,666
MCAS	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Music	2.50	154,627	1.75	98,153	1.70	102,099	-0.05	3,946	2.50	160,000	0.80	57,901
Other	2.00	148,960	2.00	145,941	2.00	155,991	0.00	10,050	2.00	160,000	0.00	4,009
Physical Education	3.00	257,126	3.00	263,862	3.00	276,265	0.00	12,403	4.00	370,000	1.00	93,735
Reading	1.00	78,979	1.00	88,514	1.00	91,433	0.00	2,919	1.00	95,000	0.00	3,567
School Adjustment Counselor	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Science												
Biology	5.25	336,538	5.25	344,932	5.25	363,073	0.00	18,141	7.00	490,000	1.75	126,927
Botany	0.00	-	0.00		0.00		0.00	-	0.00	-	0.00	-
Chemistry	0.00	-	0.00		0.00		0.00	-	0.00	-	0.00	-
Geology	0.00	-	0.00		0.00		0.00	-	0.00	-	0.00	-
Physics	0.00	-	0.00		0.00		0.00	-	0.00	-	0.00	-
Special Education	23.50	1,107,079	24.00	1,219,295	25.50	1,249,651	1.50	30,356	28.00	1,400,000	2.50	150,349
Substitute Teachers	0.00	54,112	0.00	65,250	0.00	-	0.00	(65,250)	0.00	-	0.00	-
Technology	0.00	1,179	0.00	1,350	0.00	-	0.00	(1,350)	0.00	1,500	0.00	1,500
Vocational Tech.	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Total Instruction - Teaching Services	**69.75**	**4,267,193**	**69.25**	**4,419,485**	**74.70**	**4,749,081**	**5.45**	**329,596**	**91.25**	**5,876,500**	**16.55**	**1,127,419**
Total Salaries Administration & Instruction	**86.75**	**5,260,877**	**86.75**	**5,495,286**	**90.70**	**5,883,646**	**3.95**	**388,360**	**110.25**	**7,322,500**	**19.55**	**1,438,854**
Employee Benefits												
All employee-related fringe (health insurance, retirement etc)		**-**		**-**		**-**		**-**		**-**		**-**
Materials & Services												
Materials												
Audio-Visual Materials		-		-		-		-		-		-

Budget Statement for Preferred Schematic - Expenditures

Category	2014-2015 FY2015 Staff (FTE)	2014-2015 FY2015 Budget	2015-2016 FY2016 Staff (FTE)	2015-2016 FY2016 Budget	2016-2017 FY2017 Staff	2016-2017 FY2017 Budget	Change from Previous Year Staff (FTE)	Change from Previous Year Budget	Post-Constuction Budget Staff	Post-Constuction Budget Budget	New Facility vs. Current Staff (FTE)	New Facility vs. Current Budget
Culinary Arts Materials		-		-		-		-		-		-
General Office Supplies		1,648		2,648		2,648		-		3,000		352
Information technology		-		-		-		-		-		-
Hardware		3,905		2,935		2,935		-		3,500		565
Software		-		1,285		1,285		-		2,000		715
Library Materials		1,545		2,045		2,045		-		7,560		5,515
Non info-tech equipment		-		-		-		-		-		-
Testing Materials & Supplies		-		-		-		-		-		-
Textbooks		-		1,141		1,141		-		3,000		1,859
Vocational Program Materials		-		-		-		-		-		-
Total Materials		**7,098**		**10,054**		**10,054**		**-**		**19,060**		**9,006**
Services												
Athletics		-		-		-		-		-		-
Attendance		-		-		-		-		-		-
Food Service		515		515		515		-		-		(515)
Health Services		-		-		-		-		-		-
Other Student Activities		16,800		19,600		20,000		400		22,000		2,000
Psychological Services		-				-		-		-		-
School Security		-		-		-		-		-		-
Student Transportation		1,030		800		800		-		1,500		700
Total Services		**18,345**		**20,915**		**21,315**		**400**		**23,500**		**2,185**
Total Material & Services		**25,443**		**30,969**		**31,369**		**400**		**42,560**		**11,191**
Facility Costs & Capital Improvements												
Facility Costs												
Custodial Supplies		-		-		-		-		-		-
Electricity		105,116		111,759		101,158		(10,601)		125,000		23,842
Heating Oil		-		-		-		-		-		-
Maintenance												
Building Security Maintenance		-		20,961		-		(20,961)		-		-
Elevator		-		-		-		-		5,000		5,000
Equipment Maintenance		-		-		-		-		-		-
Exterminating		9,300		9,630		9,630		-		10,000		370
Facility Maintenance		46,023		31,969		20,502		(11,467)		10,000		(10,502)
Fire Alarm		1,500		-		1,500		1,500		2,000		500
Fire Extinguisher Inspection		2,688		2,162		1,763		(399)		2,000		237
Generator		-		-		-		-		-		-
HVAC Maintenance		21,481		8,687		-		(8,687)		-		-
Other		-		-		-		-		-		-
Site Maintenance (Grouds)		-		-		-		-		-		-
Technology		-		-		-		-		-		-
Trash Removal		-		-		-		-		-		-
Natural Gas		134,865		80,134		74,133		(6,001)		70,000		(4,133)
Snow Removal		-		-		-		-		-		-
Telephone		-		289		-		(289)		-		-
Water/Sewer		-		-		-		-		-		-
Total Facility Costs		**320,973**		**265,591**		**208,686**		**(56,905)**		**224,000**		**15,314**
Captial Improvements												
Captial Improvements		**-**		**21,200**		**100,000**		**78,800**		**-**		**(100,000)**
Total Facility Costs & Capital Improvements		**320,973**		**286,791**		**308,686**		**21,895**		**224,000**		**(84,686)**
Debt Service												
Short-term		-		-		-		-		-		-
Long-term		-		-		-		-		-		-
Total Debt Service		**-**		**-**		**-**		**-**		**-**		**-**
Total Budget & Staff	**86.75**	**5,607,293**	**86.75**	**5,813,046**	**90.70**	**6,223,701**	**4**	**410,655**	**110**	**7,589,060**	**20**	**1,365,359**

Budget Statement for Preferred Schematic - Revenue

As reported on the school district's most recent three End of Year Pupil and Financial Reports schedule 1, please update to the 3 latest fiscal year periods and report sources of revenue in the fields below.

	FY15 End of Year Financial Report							FY16 End of Year Financial Report							FY17 End of Year Financial Report						
	Regular Day	Special Education	C74 Occupational Day	Adult Education	Other Programs	Un-distributed	Total	Regular Day	Special Education	C74 Occupational Day	Adult Education	Other Programs	Un-distributed	Total	Regular Day	Special Education	C74 Occupational Day	Adult Education	Other Programs	Un-distributed	Total
A. Revenue from Local Sources																					
Assessments received by Regional Schools	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E&D Fund Appropriations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuition from Individuals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuition from Other Districts in Comm.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuition from Districts in Other States	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Previous Year Unexpended Encumbrances (Carry Forward)	-	-	-	-	-	1,841	1,841	-	-	-	-	-	3,617	3,617	-	-	-	-	-	5	5
Transportation Fees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Earnings on Investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rental of School Facilities	-	-	-	-	-	692,083	692,083	-	-	-	-	-	847,917	847,917	-	-	-	-	-	800,000	800,000
Other Revenue	-	-	-	-	-	3,652	3,652	-	-	-	-	-	5,397	5,397	-	-	-	-	-	2,139	2,139
Medical Care and Assistance	-	1,750,598	-	-	-	-	1,750,598	-	1,445,850	-	-	-	-	1,445,850	-	1,770,961	-	-	-	-	1,770,961
Non Revenue Receipts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenue From Local Sources	**-**	**1,750,598**	**-**	**-**	**-**	**697,576**	**2,448,174**	**-**	**1,445,850**	**-**	**-**	**-**	**856,931**	**2,302,781**	**-**	**1,770,961**	**-**	**-**	**-**	**802,144**	**2,573,105**
B. Revenue from State Aid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
School Aid (Chapter 70)	-	-	-	-	-	33,596,455	33,596,455	-	-	-	-	-	37,729,858	37,729,858	-	-	-	-	-	42,091,391	42,091,391
Mass School Building Authority - Construction Aid	-	2,510,995	-	-	-	-	2,510,995	-	2,129,671	-	-	-	-	2,129,671	-	2,129,672	-	-	-	-	2,129,672
Pupil Transportation (Ch. 71, 71A,71B,74)	-	-	-	-	-	172,479	172,479	-	-	-	-	-	172,479	172,479	-	-	-	-	-	219,060	219,060
Charter Tuition Reimbursements & Charter Facilities Aid	-	679,059	-	-	-	283,675	962,734	-	212,769	-	-	-	281,331	494,100	-	455,695	-	-	-	305,047	760,742
Circuit Breaker	-	-	-	-	-	4,399,265	4,399,265	-	-	-	-	-	4,579,065	4,579,065	-	-	-	-	-	4,902,240	4,902,240
Foundation Reserve	-	-	-	-	-	-	-	-	-	-	-	-	1,000,000	1,000,000	-	-	-	-	-	-	-
Total Revenue From State Aid	**-**	**3,190,054**	**-**	**-**	**-**	**38,451,874**	**41,641,928**	**-**	**2,342,440**	**-**	**-**	**-**	**43,762,733**	**46,105,173**	**-**	**2,585,367**	**-**	**-**	**-**	**47,517,738**	**50,103,105**
C. Revenue from Federal Grants																					
ESE Administered Grants	1,895,497	2,193,860	49,580	-	-	607,271	4,746,208	1,273,851	2,133,560	59,207	-	-	534,050	4,000,668	1,717,205	2,089,232	63,546	-		930,257	4,800,240
Other Federal Grants	-	53,719	-	-	-	-	53,719	-	50,671	-	-	-	-	50,671	-	55,010	-	-	-	-	55,010
Total Revenue Federal Grants	**1,895,497**	**2,247,579**	**49,580**	**-**	**-**	**607,271**	**4,799,927**	**1,273,851**	**2,184,231**	**59,207**	**-**	**-**	**534,050**	**4,051,339**	**1,717,205**	**2,144,242**	**63,546**	**-**	**-**	**930,257**	**4,855,250**
D. Revenue from State Grants																					
ESE Administered Grants	-	-	-	-	-	323,435	323,435	-	-	-	-	-	299,979	299,979	-	-	-	-	-	24,000	24,000
Other State Grants	485,979	-	-	-	-	-	485,979	492,630	4,579,065	-	-	-	1,005,000	6,076,695	361,479	-	-	-	-	2,500	363,979
Total Revenue From State Grants	**485,979**	**-**	**-**	**-**	**-**	**323,435**	**809,414**	**492,630**	**4,579,065**	**-**	**-**	**-**	**1,304,979**	**6,376,674**	**361,479**	**-**	**-**	**-**	**-**	**26,500**	**387,979**
E. Revenue - Revolving & Special Funds																					
School Lunch Receipts	-	-	-	-	-	2,948,005	2,948,005	-	-	-	-	-	3,012,368	3,012,368	-	-	-	-	-	3,135,006	3,135,006
Athletic Receipts	-	-	-	-	-	298,785	298,785	-	-	-	-	-	294,630	294,630	-	-	-	-	-	200,341	200,341
Tuition Receipts - School Choice	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuition Receipts - Other	-	1,557,366	-	-	-	311,775	1,869,141	-	1,731,035	-	-	-	270,534	2,001,569	-	1,778,747	-	-	-	361,852	2,140,599
Other Local Receipts	-	-	-	-	572,338	500,801	1,073,139	-	-	-	-	599,350	1,101,918	1,701,268	-	-	-	-	571,967	407,871	979,838
Private Grants	108,356	-	-	-	-	15,193	123,549	84,467	2,737	-	-	-	141,280	228,484	148,555	-	-	-	-	143,017	291,572
Total Revenue Revolving & Special Funds	**108,356**	**1,557,366**	**-**	**-**	**572,338**	**4,074,559**	**6,312,619**	**84,467**	**1,733,772**	**-**	**-**	**599,350**	**4,820,730**	**7,238,319**	**148,555**	**1,778,747**	**-**	**-**	**571,967**	**4,248,087**	**6,747,356**
Total Revenue All Sources	**2,489,832**	**8,745,597**	**49,580**	**-**	**572,338**	**44,154,715**	**56,012,062**	**1,850,948**	**12,285,358**	**59,207**	**-**	**599,350**	**51,279,423**	**66,074,286**	**2,227,239**	**8,279,317**	**63,546**	**-**	**571,967**	**53,524,726**	**64,666,795**

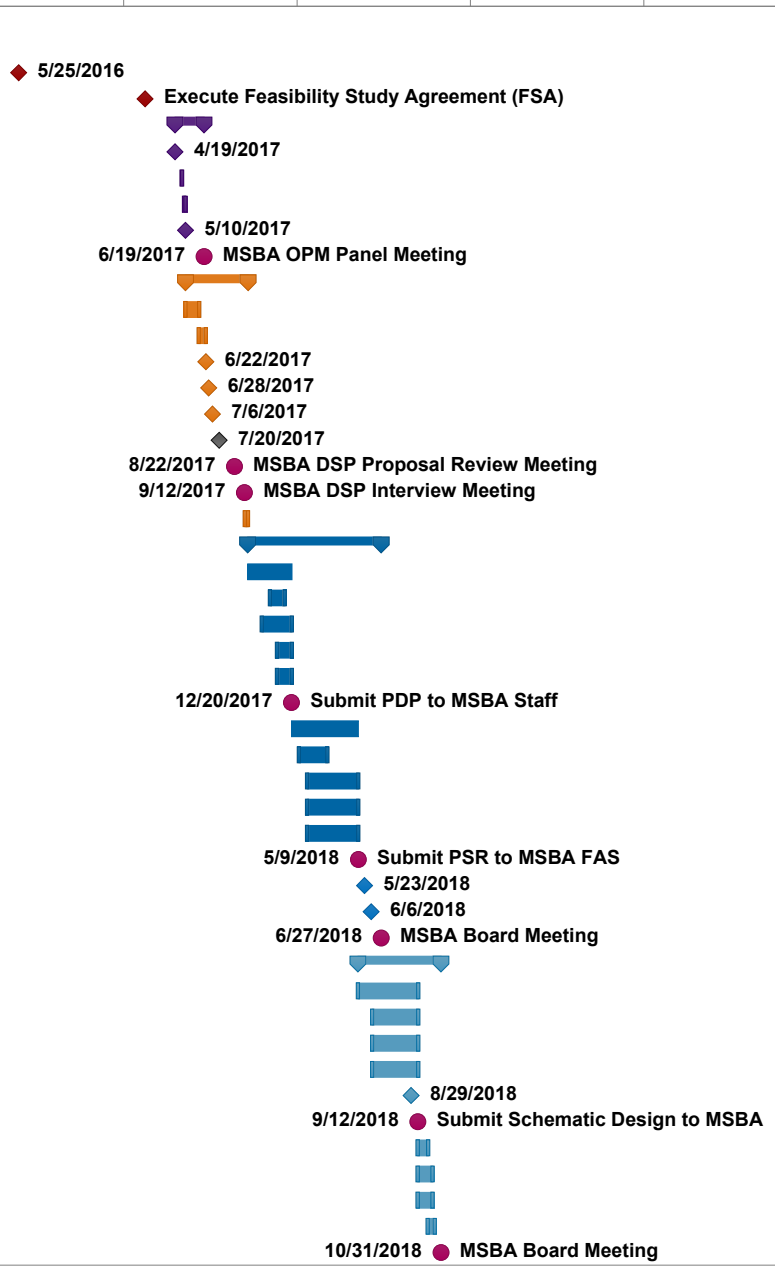
May 9, 2018
Updated June 15, 2018

FULLER MIDDLE SCHOOL
Feasibility Study
Preliminary Project Schedule - PSR Submission

PROJECT MANAGEMENT

SMMA

ID	Task Name	Duration	Start	Finish
1	**MSBA PREREQUISITES**	**500 days**	**3/13/2015**	**2/15/2017**
2	Original Statement of Interest (SOI) Submission	0 days	3/13/2015	3/13/2015
3	MSBA Invite into Eligibility	0 days	5/25/2016	5/25/2016
4	Execute Feasibility Study Agreement (FSA)	0 days	2/15/2017	2/15/2017
5	**RETAIN OPM**	**43 days**	**4/19/2017**	**6/19/2017**
6	Submit OPM Proposals	0 days	4/19/2017	4/19/2017
7	OPM Interview	1 day	5/3/2017	5/3/2017
8	Negotiate OPM Contract	3 days	5/8/2017	5/10/2017
9	Submit Documents to MSBA OPM Panel	0 days	5/10/2017	5/10/2017
10	**MSBA OPM Panel Meeting**	**0 days**	**6/19/2017**	**6/19/2017**
11	**RETAIN DESIGNER**	**94 days**	**5/11/2017**	**9/19/2017**
12	Draft Designer RFS and Submit to MSBA	21 days	5/11/2017	6/8/2017
13	MSBA Approve Draft RFS	11 days	6/8/2017	6/22/2017
14	Submit to Central Register	0 days	6/22/2017	6/22/2017
15	Notice in Central Register	0 days	6/28/2017	6/28/2017
16	Briefing Session	0 days	7/6/2017	7/6/2017
17	Submit Designer Proposals	0 days	7/20/2017	7/20/2017
18	**MSBA DSP Proposal Review Meeting**	**0 days**	**8/22/2017**	**8/22/2017**
19	**MSBA DSP Interview Meeting**	**0 days**	**9/12/2017**	**9/12/2017**
20	Negotiate Designer Contract	5 days	9/13/2017	9/19/2017
21	**FEASIBILITY STUDY (FS)**	**201 days**	**9/19/2017**	**6/27/2018**
22	Develop Preliminary Design Program (PDP)	67 days	9/19/2017	12/20/2017
23	Submit PNF to MHC	23 days	11/5/2017	12/5/2017
24	Community Presentations	45 days	10/19/2017	12/20/2017
25	Town Council Presentations	23 days	11/20/2017	12/20/2017
26	School Committee Presentations	23 days	11/20/2017	12/20/2017
27	**Submit PDP to MSBA Staff**	**0 days**	**12/20/2017**	**12/20/2017**
28	Develop Preferred Schematic Report (PSR)	101 days	12/20/2017	5/9/2018
29	Receive MHC Clearance	42 days	1/5/2018	3/5/2018
30	Community Presentations	78 days	1/22/2018	5/9/2018
31	City Council Presentations	78 days	1/22/2018	5/9/2018
32	School Committee Presentations	78 days	1/22/2018	5/9/2018
33	**Submit PSR to MSBA FAS**	**0 days**	**5/9/2018**	**5/9/2018**
34	**FAS Presentation**	**0 days**	**5/23/2018**	**5/23/2018**
35	**FAS Presentation**	**0 days**	**6/6/2018**	**6/6/2018**
36	**MSBA Board Meeting**	**0 days**	**6/27/2018**	**6/27/2018**
37	**SCHEMATIC DESIGN (SD)**	**125 days**	**5/9/2018**	**10/31/2018**
38	Develop Schematic Design	91 days	5/9/2018	9/12/2018
39	Community Presentations	69 days	6/8/2018	9/12/2018
40	City Council Presentations	69 days	6/8/2018	9/12/2018
41	School Committee Presentations	69 days	6/8/2018	9/12/2018
42	Submit Final Budget to MSBA	0 days	8/29/2018	8/29/2018
43	**Submit Schematic Design to MSBA**	**0 days**	**9/12/2018**	**9/12/2018**
44	MSBA Review SD Submission	16 days	9/12/2018	10/3/2018
45	PS&B Agreement Execution	23 days	9/12/2018	10/12/2018
46	DESE Review	23 days	9/12/2018	10/12/2018
47	Respond to MSBA Comments	11 days	10/3/2018	10/17/2018
48	**MSBA Board Meeting**	**0 days**	**10/31/2018**	**10/31/2018**



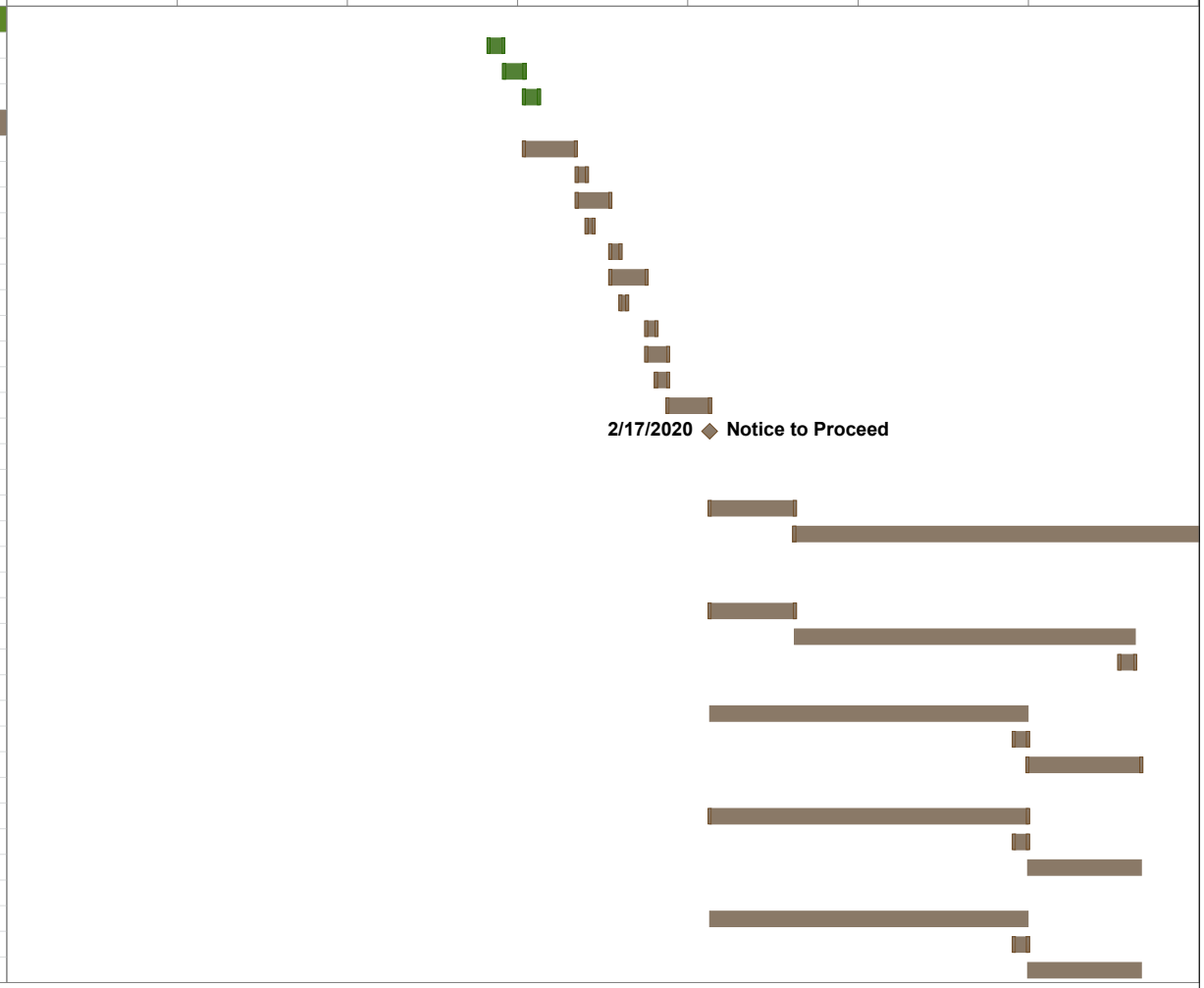
May 9, 2018
Updated June 15, 2018

FULLER MIDDLE SCHOOL
Feasibility Study
Preliminary Project Schedule - PSR Submission

PROJECT MANAGEMENT

SMMA

ID	Task Name	Duration	Start	Finish
49	**LOCAL APPROPRIATION**	**78 days**	**10/31/2018**	**2/15/2019**
50	City Council Appropriation	23 days	10/31/2018	11/30/2018
51	Debt Exclusion Votes	32 days	12/3/2018	1/15/2019
52	Project Funding Agreement Execution	24 days	1/15/2019	2/15/2019
53	**DESIGN AND CONSTRUCTION**	**1198 days**	**1/15/2019**	**8/17/2023**
54	Design Development	80 days	1/15/2019	5/5/2019
55	MSBA Review of DD Submission	16 days	5/8/2019	5/29/2019
56	60% Construction Documents	52 days	5/8/2019	7/18/2019
57	Incorporate MSBA DD Comments	11 days	5/29/2019	6/12/2019
58	MSBA Review of 60% CD Submission	16 days	7/19/2019	8/9/2019
59	90% Construction Documents	56 days	7/19/2019	10/4/2019
60	Incorporate MSBA 60% CD Comments	11 days	8/10/2019	8/23/2019
61	MSBA Review of 90% CD Submission	16 days	10/4/2019	10/25/2019
62	100% Construction Documents	33 days	10/4/2019	11/19/2019
63	Incorporate MSBA 90% CD Comments	18 days	10/25/2019	11/19/2019
64	Bidding and Award	65 days	11/19/2019	2/17/2020
65	**Notice to Proceed**	**0 days**	**2/17/2020**	**2/17/2020**
66	**Construction**	**914 days**	**2/17/2020**	**8/17/2023**
67	**Option 0.0: Repair Only**	**914 days**	**2/17/2020**	**8/17/2023**
68	Create Swing Space	131 days	2/17/2020	8/17/2020
69	Renovation/Site Work	784 days	8/17/2020	8/17/2023
70	Move-in Date	25 days	7/15/2023	8/17/2023
71	**Option A: Renovation and Addition**	**653 days**	**2/17/2020**	**8/17/2022**
72	Create Swing Space	131 days	2/17/2020	8/17/2020
73	Renovation and Addition/Demo/Site Work	523 days	8/17/2020	8/17/2022
74	Move-in Date	24 days	7/15/2022	8/17/2022
75	**Option B: New Construction**	**662 days**	**2/17/2020**	**8/30/2022**
76	New Construction	489 days	2/17/2020	12/30/2021
77	Move-in Date	22 days	12/1/2021	12/30/2021
78	Demolition/Site Work	174 days	12/30/2021	8/30/2022
79	**Option C: New Construction**	**662 days**	**2/17/2020**	**8/30/2022**
80	New Construction	489 days	2/17/2020	12/30/2021
81	Move-in Date	22 days	12/1/2021	12/30/2021
82	Demolition/Site Work	174 days	12/30/2021	8/30/2022
83	**Option D: New Construction**	**662 days**	**2/17/2020**	**8/30/2022**
84	New Construction	489 days	2/17/2020	12/30/2021
85	Move-in Date	22 days	12/1/2021	12/30/2021
86	Demolition/Site Work	174 days	12/30/2021	8/30/2022



Proposed Space Summary - Middle Schools

Legend

= Change from MSBA Template

= Change from Previous Submission

FULLER Middle School 630 Students Grades 6-8	Existing Conditions			Preliminary Design Program MSBA Comment Response Set 2/1/2018			PSR Submission 5/9/2018			PROPOSED									MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
										Existing to Remain/Renovated			New			Total					
ROOM TYPE	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			**31,685**			**45,570**			**43,170**			**0**			**35,710**			**35,710**			**29,580**	
(List classrooms of different sizes separately)																					
Classroom - General	775	20	15,500	900	21	18,900	900	21	18,900				900	21	18,900	900	21	18,900	950	22	20,900	850 SF min - 950 SF max
ELL Classrooms	675	9	6,075	900	9	8,100	900	9	8,100				900	6	5,400	900	6	5,400				
Teacher Planning	0	0	0	90	15	1,350	90	15	1,350				90	14	1,260	90	14	1,260				Shared between classrooms
Classroom Breakout	0	0	0	300	15	4,500	300	7	2,100				300	7	2,100	300	7	2,100				Shared between classrooms. Includes SPED use
Small Group Seminar (20-30 seats) / Resource /Professional Development/ Itinerant / Workspace	0	0	0	400	3	1,200	400	3	1,200				400	1	400	400	1	400	500	2	1,000	Professional Development/ Itinerant / Workspace. Some uses served in Admin "Teachers Work Rooms"
Science Classroom / Lab	915	10	9,150	1,150	9	10,350	1,150	9	10,350				1,150	6	6,900	1,150	6	6,900	1,200	6	7,200	
Prep Room	240	4	960	80	9	720	80	9	720				80	6	480	80	6	480	80	6	480	
Science Teacher Planning	0	0	0	90	5	450	90	5	450				90	3	270	90	3	270				Shared between classrooms
SPECIAL EDUCATION			**10,875**			**9,090**			**8,820**			**0**			**8,820**			**8,820**			**7,550**	
(List classrooms of different sizes separately)																					
Self-Contained SPED	930	5	4,650	900	6	5,400	900	6	5,400				900	6	5,400	900	6	5,400	950	5	4,750	assumed 8% of pop. in self-contained SPED
SPED Teacher Planning	0	0	0	90	6	540	90	3	270				90	3	270	90	3	270				Dedicated to SPED classrooms
SPED Classroom Breakout	620	7	4,340	300	3	900	300	2	600				300	2	600	300	2	600				Shared between classrooms. SPED use also in Gen Classroom Breakout
Self-Contained SPED Toilet	0	0	0	60	0	0	100	3	300				100	3	300	100	3	300	60	5	300	For medically fragile students
Resource Room	935	1	935	500	3	1,500	500	3	1,500				500	3	1,500	500	3	1,500	500	3	1,500	Should be divisible
Small Group Room / Reading	0	0	0	250	3	750	250	3	750				250	3	750	250	3	750	500	2	1,000	1/2 size Genl. Clrm.
SPED Office w/Storage	190	5	950			0			0						0	0	0	0				
ART & MUSIC			**5,620**			**3,250**			**3,650**			**0**			**3,650**			**3,650**			**3,250**	
Art Classroom	600	2	1,200	1,200	1	1,200	1,200	1	1,200				1,200	1	1,200	1,200	1	1,200	1,200	1	1,200	assumed use - 50% population 2 times / week
Art Workroom w/ Storage & kiln	0	0	0	150	1	150	150	1	150				150	1	150	150	1	150	150	1	150	
Band / Chorus - 100 seats	2,120	2	4,240	750	2	1,500	950	2	1,900				950	2	1,900	950	2	1,900	1,500	1	1,500	To accommodate 60 to 70 students
Music Practice / Ensemble	60	3	180	200	2	400	200	2	400				200	2	400	200	2	400	200	2	400	
VOCATIONS & TECHNOLOGY			**3,350**			**4,150**			**4,150**			**0**			**3,200**			**3,200**			**6,400**	Distributed V&T in Cohort Commons
Tech Clrm. - (E.G. Drafting, Business)	1,660	1	1,660	950	1	950	950	1	950				950	0	0	950	0	0	1,200	2	2,400	Functions to be served in Fab Lab
Tech Shop - (E.G. Consumer, Wood)	1,690	1	1,690	2,000	1	2,000	2,000	1	2,000				2,000	1	2,000	2,000	1	2,000	2,000	2	4,000	Assumed use - 25% Population - 5 times/week
Fab Lab	0	0	0	1,200	1	1,200	1,200	1	1,200				1,200	1	1,200	1,200	1	1,200				Includes closed off area for 3D printers
HEALTH & PHYSICAL EDUCATION			**24,265**			**8,185**			**9,985**			**0**			**9,985**			**9,985**			**8,400**	
Gymnasium	9,680	1	9,680	6,500	1	6,500	8,300	1	8,300				8,300	1	8,300	8,300	1	8,300	6,000	1	6,000	Gym enlarged to fit 2 MS BB Courts
Gym Storeroom	260	2	520	300	1	300	300	1	300				300	1	300	300	1	300	150	1	150	
Health Instructor's Office w/ Shower & Toilet	685	3	2,055	150	2	300	150	2	300				150	2	300	150	2	300	250	1	250	PE instructor - no shower or toilet
Locker Rooms - Boys / Girls w/ Toilets	3,500	2	7,000	500	2	1,000	500	2	1,000				500	2	1,000	500	2	1,000	1,000	2	2,000	3 Shower, 1 toilet, 25 lockers
Unisex Toilet / Shower	140	1	140	85	1	85	85	1	85				85	1	85	85	1	85				Include 4 lockers
Fitness Center	4,870	1	4,870			0			0						0							
MEDIA CENTER			**3,720**			**6,250**			**6,250**			**0**			**6,250**			**6,250**			**4,003**	
Media Center / Reading Room	3,720	1	3,720	1,900	1	1,900	1,900	1	1,900				1,900	1	1,900	1,900	1	1,900	4,003	1	4,003	
Cohort Commons	0	0	0	1,450	3	4,350	1,450	3	4,350				1,450	3	4,350	1,450	3	4,350				Distributed Media Center and Vocations and Technology functions
DINING & FOOD SERVICE			**13,740**			**8,923**			**8,923**			**0**			**8,923**			**8,923**			**8,922**	
Cafetorium / Dining	8,570	1	8,570	4,725	1	4,725	4,725	1	4,725				4,725	1	4,725	4,725	1	4,725	4,725	1	4,725	2 seatings - 15SF per seat
Stage	0	0	0	1,600	1	1,600	1,600	1	1,600				1,600	1	1,600	1,600	1	1,600	1,600	1	1,600	
Chair / Table / Equipment Storage	440	1	440	410	1	410	410	1	410				410	1	410	410	1	410	410	1	410	
Kitchen	3,485	1	3,485	1,930	1	1,930	1,930	1	1,930				1,930	1	1,930	1,930	1	1,930	1,930	1	1,930	1600 SF for first 300 + 1 SF/student Add'l
Staff Lunch Room	1,245	1	1,245	258	1	258	258	1	258				258	1	258	258	1	258	258	1	258	20 SF/Occupant
MEDICAL			**1,560**			**610**			**610**			**0**			**610**			**610**			**610**	
Medical Suite Toilet	50	3	150	60	1	60	60	1	60				60	1	60	60	1	60	60	1	60	
Nurses' Office / Waiting Room	930	1	930	250	1	250	250	1	250				250	1	250	250	1	250	250	1	250	
Examination Room / Resting	160	3	480	100	3	300	100	3	300				100	3	300	100	3	300	100	3	300	
ADMINISTRATION & GUIDANCE			**4,600**			**4,940**			**4,940**			**0**			**5,240**			**5,240**			**3,430**	
General Office / Waiting Room / Toilet	1,540	1	1,540	415	1	415	415	1	415				415	1	415	415	1	415	415	1	415	
Teachers' Mail and Time Room	100	1	100	100	1	100	100	1	100				100	1	100	100	1	100	100	1	100	
Duplicating Room	130	1	130	200	1	200	200	1	200				200	1	200	200	1	200	200	1	200	
Records Room	90	1	90	200	1	200	200	1	200				200	1	200	200	1	200	200	1	200	
Principal's Office w/ Conference Area	560	1	560	375	1	375	375	1	375				375	1	375	375	1	375	375	1	375	

Proposed Space Summary - Middle Schools

Legend

= Change from MSBA Template

= Change from Previous Submission

FULLER Middle School 630 Students Grades 6-8	Existing Conditions			Preliminary Design Program MSBA Comment Response Set 2/1/2018			PSR Submission 5/9/2018			PROPOSED									MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
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Principal's Secretary / Waiting	80	1	80	125	1	125	125	1	125				125	1	125	125	1	125	125	1	125	
Assistant Principal's Office - AP1	110	1	110	150	1	150	150	1	150				150	1	150	150	1	150	150	1	150	
Assistant Principal's Office - AP2	0	0	0	150	0	0	150	0	0				150	0	0	150	0	0	150	1	150	
Supervisory / Spare Office	170	1	170	150	1	150	150	1	150				150	1	150	150	1	150	150	1	150	
Conference Room	310	1	310	350	1	350	350	1	350				350	1	350	350	1	350	350	1	350	
Small Conference Room	0	0	0	200	1	200	200	1	200				200	1	200	200	1	200				For parent meetings
Guidance Office (Student Support)	170	8	1,360	150	6	900	150	6	900				150	6	900	150	6	900	150	4	600	Distributed 2 per cohort
Guidance Waiting Room W/ Sto Closet	0	0	0	75	3	225	75	3	225				75	3	225	75	3	225	100	1	100	Distributed 1 per cohort
Guidance Storeroom	60	1	60	50	1	50	50	1	50				50	1	50	50	1	50	50	1	50	
Teachers' Work Room			0	200	3	600	200	3	600				300	3	900	300	3	900	465	1	465	Distributed 1 per cohort. Serves uses of removed Small Seminar Rooms
Dept Head / Coach offices	90	1	90	150	6	900	150	6	900				150	6	900	150	6	900				Distributed 2 per cohort
CUSTODIAL & MAINTENANCE			**3,515**			**2,105**			**2,105**			**0**			**2,105**			**2,105**			**2,105**	
Custodian's Office	100	1	100	150	1	150	150	1	150				150	1	150	150	1	150	150	1	150	
Custodian's Workshop	250	1	250	250	1	250	250	1	250				250	1	250	250	1	250	250	1	250	
Custodian's Storage	105	9	945	375	1	375	375	1	375				375	1	375	375	1	375	375	1	375	
Recycling Room / Trash	0	0	0	400	1	400	400	1	400				400	1	400	400	1	400	400	1	400	
Receiving and General Supply	220	1	220	310	1	310	310	1	310				310	1	310	310	1	310	310	1	310	
Storeroom	1,240	1	1,240	420	1	420	420	1	420				420	1	420	420	1	420	420	1	420	
Network / Telecom Room	380	2	760	200	1	200	200	1	200				200	1	200	200	1	200	200	1	200	
						0			0						0							
OTHER			**27,670**			**13,000**			**10,000**			**0**			**10,000**			**10,000**			**0**	
Other *(specify)*																						
Adult ESL Offices	2,370	1	2,370	3,000	1	3,000	0	0	0				0	0	0	0	0	0				
City Offices, (PIC, Bldg& Grounds, BOH)	17,300	1	17,300																			
Auditorium	5,400	1	5,400	7,500	1	7,500	7,500	1	7,500				7,500	1	7,500	7,500	1	7,500				750 seat auditorium
Stage	1,900	1	1,900	1,600	1	1,600	1,600	1	1,600				1,600	1	1,600	1,600	1	1,600				
Auditorium Storage	160	1	160	400	1	400	400	1	400				400	1	400	400	1	400				
Dressing Rooms	270	2	540	250	2	500	250	2	500				250	2	500	250	2	500				
Total Building Net Floor Area (NFA)			**130,600**			**106,073**			**102,603**			**0**			**94,493**			**94,493**			**74,250**	
Proposed Student Capacity / Enrollment																					**630**	
Total Building Gross Floor Area (GFA)[2]			195,900			159,110			**153,905**						**141,740**			**141,740**			**107,280**	
Grossing factor (GFA/NFA)			**1.50**			**1.50**			**1.50**						**1.50**			**1.50**			**1.44**	

[1] **Individual Room Net Floor Area (NFA)** Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

[2] **Total Building Gross Floor Area (GFA)** Includes the entire building gross square footage measured from the outside face of exterior walls

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.

Name of Architect Firm: Jonathan Levi Architects

Name of Principal Architect: Jonathan Levi, FAIA

Signature of Principal Architect:

Date: 6/19/2018

Framingham Public Schools

Where every child can and will reach high levels of achievement.

Fuller Middle School
Educational Program
June, 2018

Table of Contents

Executive Summary

Fuller Middle School is in its fourth year of STEAM (Science, Technology, Engineering, Arts and Mathematics) design and implementation as part of a district-wide effort to deliver instruction through a project-based, interdisciplinary model that engages students through inquiry and emphasizes 21st Century skills. The Framingham Public Schools envisions the new or renovated Fuller Middle School, together with its educational program, as a model for both the district and the state.

This educational program hinges on six design principles:

- Transdisciplinary Instruction
- Personalized and Collaborative Learning
- Whole Child, Whole Community
- Visible Learning
- Community and Civic Hub
- Adaptability

At the heart of this program is the individual child: by providing opportunities for students to engage in inquiry, collaborate with peers, integrate learning across content areas, utilize technology effectively, and make their thinking and learning visible, students will develop and/or strengthen their growth mindset and feel ready to tackle any future challenge.

An important aspect of STEAM instruction is the ability for students to explore challenges and build physical representations. A Fabrication Laboratory and MakerSpace are fundamental components of the program. Students will use these spaces to engage in the engineering design model, where they develop and test a prototype of their idea and then make modifications as needed until they are ready to present their solution.

Collaboration will be the foundation of all progress as Fuller Middle School continues its transformation to a STEAM model. Teachers will need regular, frequent opportunities to meet with colleagues to develop interdisciplinary lessons, co-plan, review curriculum and analyze data. Students will work collaboratively with peers to perform investigations, research topics, complete projects, and present their work. Thus, ample meeting space and the flexible use of space are key elements of the new or renovated facility.

The Fuller Middle School student population includes 161 English Learners (ELs) and 49 Former English Learners (FELs, one or two years out of the English Language Development program), representing 41% of the total school population. More than 50% of the school's students speak a language other than English at home. The current Fuller Middle School has 9 dedicated classrooms for ELs, and will need at least this many classrooms in the future as the EL population continues to rise.

Fuller Middle School supports students with disabilities through inclusion services as well as two substantially separate programs: Intellectual Impairments and Autism Spectrum Disorders. There are 126 students with active Individualized Education Programs (IEPs), representing 24% of the student population. Of this total, 44 students are provided instruction in the substantially

separate programs. The current Fuller Middle School has 5 dedicated classrooms for the substantially separate programs; however, given the growing Autism program at the elementary level, it is expected that an additional classroom will be necessary in the next couple of years. Inclusion services are provided through standard curriculum classrooms that are assigned a special education co-teacher whose primary role is to deliver the necessary accommodations and instructional support.

To create smaller learning communities within the large Fuller Middle School, the new facility should consist of three neighborhoods (cohorts), one for each grade level. All grade-specific classes (ELA, Math, Social Studies and Science) will be taught within these areas. In addition, each neighborhood shall include designated English as a Second Language and Special Education classrooms to fully integrate all students within the whole school community. To provide easy access to support services and school leaders, small auxiliary administrative suites should be located within each neighborhood. By moving guidance counselors and other support staff into these "satellite" administrative suites, support staff will be closer to students, thus ensuring increased access. This will also allow support staff to better know their students so they can more proactively address concerns.

Welcome to the Framingham Public Schools

The mission of the Framingham Public Schools, a system that understands and values our diversity, is to educate each student to learn and live productively as a critically-thinking, responsible citizen in a multicultural, democratic society by providing academically challenging instructional programs taught by a highly-qualified and diverse staff and supported by comprehensive services in partnership with our entire community.

We envision a school district in which every child is engaged as an active learner in high-quality educational experiences and is supported, at their level, to ensure growth over time. We believe in an educational model that is steeped in meeting the individual needs of every student in our care through the personalization of learning as an ongoing effort to address achievement and opportunity gaps. We believe that with effective effort, time, and practice, all of our students can and will reach high levels of achievement.

Our diversity is our strength. Our city is enriched and strengthened by its diverse cultural heritage, multinational population, and welcoming attitude toward newcomers. Within our classrooms and neighborhoods, and on our stages and athletic fields, we want learning to be relevant and connected to developing our students into value-centered citizens who are able to navigate a complex and inequitable world. We aim to address these inequities--including racism, socio-economic status and language barriers--to create an environment in which every child can and will succeed.

The Framingham Public Schools adapts instruction to meet the learning and developmental needs of all students through appropriately challenging, high quality, standards-based instruction connected to practical applications. We are an inclusive learning community in which students feel safe taking academic risks while mindfully respecting diversity of opinions. We foster supportive and collaborative partnerships between families, the community and the school district so that every child reaches a high level of achievement. The foundation of our work is collaboration, mutual respect, and high expectations, where all educators are reflective of their practice and feel supported as they continually adjust instruction to improve student performance.

The District's Three-Year Strategic Plan focuses on providing all students with high-quality instruction whose foundation is a standards-based curriculum. Goals in the strategic plan include:

Goal 1. Developing a shared understanding of high quality instruction, including content and instructional strategies, by all staff and executed in all classrooms and instructional settings.

Theory of Action: If we develop a common understanding of high quality instruction (HQI) including standards-based content knowledge in ELA and Math, pedagogy and high leverage strategies among all staff, then students will have equitable access to rigorous and engaging standards-based instruction to increase student achievement (
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Creating a system and culture of consistent and accurate assessment, data analysis, reflection and feedback.

Theory of Action: If we create a system and culture of data-based assessment including analysis, reflection and feedback, then educators will be able to effectively target the individual needs of students and purposefully adjust their instructional practices accordingly.

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Promoting academic achievement and social and emotional growth for all students.

Theory of Action: If we promote academic achievement and social and emotional growth for all students, then we are underscoring and making real the central mission of the Framingham Public Schools.

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Delivering targeted supports and interventions based on the analysis of data and identification of student-specific needs.

Theory of Action: If we deliver targeted supports and interventions using a data-driven approach, then students will receive differentiated instruction aligned with individual needs to optimize their success.

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Supporting a culture of rigor and excellence for all students in all settings.

Theory of Action: If there is an emphasis on rigor and excellence in all aspects of our educational system, then we are establishing appropriately challenging expectations for all students. This promotes the growth mindset by communicating our belief that all students can and will reach high levels of achievement.

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Each of these goals has played a pivotal role in the decision-making process for the plan of the new Fuller Middle School. By focusing on standards-based curriculum, student-centered instruction, teacher collaboration, social and emotional well-being, and the growth mindset, we have ensured the educational plan and new facility are aligned with the district's high-impact goals for student achievement.

STEAM Education at Fuller Middle School

The Framingham Public Schools is in its fourth year of implementation of its STEAM (Science, Technology, Engineering, Arts and Mathematics) program. In 2014, the King Elementary School opened its doors as a STEAM school, welcoming four classrooms of kindergarten students. Each year, the school has continued to grow, welcoming a new kindergarten group. The original cohort, currently in 3rd grade, has been immersed in project-based learning, explorations and exhibitions. When the King Elementary School students graduate from elementary school at the end of 5th grade, they will enter Fuller Middle School. In anticipation of this incoming class, Fuller Middle School is preparing itself to provide a comprehensive STEAM education to students.

Fuller Middle School, in its fourth year of STEAM design and implementation, is in the process of transforming its instructional delivery through a STEAM model that engages students through inquiry and emphasizes 21st Century skills. The school leadership is building student and staff capacity as it shifts to a project-based learning environment. Having recently reviewed its progress and recalibrated its work, Fuller Middle School has entered the first year of its new four-year plan, establishing clear and measurable goals to monitor growth of this model.

This innovative educational program, envisioned by the Fuller Middle School community along with school and district leadership, emphasizes project-based, student-centered learning; collaboration (student-student, student-staff, staff-staff); flexible groupings and space configurations; and strategic use of technology. To this end, the new Fuller Middle School building must embrace inventive and creative use of space to achieve these goals.

STEAM at Fuller Middle School is an approach to project-based learning that blurs subject area boundaries, engages students in learning by doing, encourages students to ask and investigate meaningful questions, and places students at the center of their own learning.

STEAM at Fuller Middle School provides a vehicle for fully engaging ALL students, connecting to real-world contexts, and developing a strong culture of accomplishment and accountability.

Fuller Middle School students practice and demonstrate the 21st century skills of critical thinking, communication, collaboration, creativity and citizenship through dynamic student projects, presentations of learning and mindful reflection.

Our Visioning Process

In June 2016, approximately 50 teachers, administrators, parents, school committee members, school building committee members, municipal representatives, and community members came together as an Educational Visioning Team. Together, they collaborated during three days of intense workshops facilitated by Frank Locker to create a prekindergarten through 8th grade educational vision. The following "Places for Learning" have been excerpted from the Executive Summary of the District-Wide PreK-8 Educational Visioning Report prepared by Frank Locker Educational Planning in June 2016.

PLACES FOR LEARNING

Several exemplars were highly favored, selected by three or four of the six Table Teams as most appropriate.

Most of the schools cited as most appropriate shared these characteristics:

- Learning spaces arranged as Small Learning Communities
- Classrooms are components of "suites of spaces," supported by other spaces immediately adjacent
- Circulation to be used for learning
- Classrooms are to be flexible, interconnected, and supported by auxiliary spaces including Collaboration/Breakout/Commons Spaces
- Interdisciplinary possibilities
- Open presentation areas
- Variety of furnishings, offering students and teachers more choices in supporting learning
- Possibility of student groups working in multiple places under the guidance of the teacher
- Teacher collaboration supported by the facilities, through connections between the rooms and strategic placement of related functions
- Teacher Planning Centers to support teacher collaboration and sense of community

The following Guiding Principles, District Planning Goals and Effective Learning Modalities have been excerpted from Executive Summary of the District-Wide PreK-8 Educational Visioning Report prepared by Frank Locker Educational Planning in June 2016.

GUIDING PRINCIPLES

1. Extend Innovative 21st Century Practices

This future-oriented Educational Vision incorporates a number of innovative 21st century educational practices such as STEM programs already in operation in classrooms in Framingham Public Schools. Extend those practices.

2. Achieve Equity and Equal Opportunities

Achieve equity and equal opportunities for all students, no matter where they reside in town or what their socioeconomic background is Create a common understanding of this Educational Vision among administrators, faculty, parents, and students to continue shifting the educational model from one that is fairly traditional to one that is more transformed.

3. Prepare Students for Success

Prepare students for success in the 21st century, an emerging world of global competition, uncertain employment prospects, infinite access to information, and rapid change in technology.

4. Teach 21st Century Skills

Teach 21st century skills at the same time as traditional content.

5. Build Relationships with Students, Families and Communities

Build relationships with students, families, and communities through school structure and programs

6. Foster Independent Lifelong Learning

Aspire beyond the Common Core and beyond the Massachusetts Department of Elementary and Secondary Education guidelines to do what is best for student learning, and to instill a lifelong sense of wonder and purpose. Create independent, lifelong learners.

7. Provide Professional Development

Establish a program of staff Professional Development to support the educational deliveries outlined here.

In October 2017, the Framingham Public Schools Educational Working Group (EWG), a group of approximately 20 Framingham Public Schools administrative leaders, teachers, administrators, students, parents, and community partners, participated in a two-day Educational Visioning Workshop facilitated by New Vista Design and Jonathan Levi Architects. The workshop was a collaborative session aimed at informing the Fuller Middle School design process. Participants were led through a step-by-step visioning process to capture their best thinking about FPS's current and future educational goals and priorities, and connect them to previous visioning work done by the district, as well as to best practices and possibilities in innovative school facility design.

On October 20, 2017, the Framingham Public Schools EWG participated in Educational Visioning Workshop One and explored the following topics:

• Priority Goals for the renovated/new facility
• 21st Century and Future Ready Teaching and Learning Practices that are key to the district's forward thinking educational vision
• Future Ready Learning Goals that distill the group's best thinking with regard to Framingham Public Schools and Fuller Middle School's current and future educational programming and priorities
• Strengths, Challenges, Opportunities, and Goals (SCOG Analysis) associated with Framingham Public Schools and Fuller Middle School's current academic programs as well as the vision for its new facility

On October 26, 2017, the Framingham Public Schools EWG participated in Educational Visioning Workshop Two and explored the following topics:

• Design Patterns that innovative schools throughout the country have put into practice in order to make their forward-thinking learning goals come alive on the level of facility design
• Guiding Principles 1.0 for design of the new facility

Priority Goals

The following list of priority goals for the design of the renovated and/or new Fuller Middle School was recorded during the participant introduction section of the Educational Working Group's (EWG) Workshop One that took place on October 20, 2017. The EWG is a group of approximately 20 participants that includes Framingham Public Schools leadership, as well as Fuller Middle School administrators, teachers, and community partners.

- Understand the long-range vision of district and how it aligns with that of FMS
- Define what the school's vision means at each level - beyond jargon
- Ensure that Fuller Middle School connects to the Elementary and High School
- This is a K-12 initiative
- Create a central hub for the school
- Explore different ways to think about the new school's media center
- A school that integrates media and technology in a comprehensive way
- A school that integrates across disciplines (now we are compartmentalized and siloed)
- A schedule and building that allows for STEAM to happen
- Promote flexibility, connectivity, and sustainability
- Be mindful of and adapt to future change
- Facilitate collaboration within the district and the facility
- Create strong community connections: they are very important, especially for FMS
- A building that is environmentally and aesthetically friendly, appealing, inviting, warm
- Allows creativity to blossom
- Relates well with young learners
- A building that serves as a "second home" for all stakeholders
- A sense of ownership and buy-in from everyone
- Beyond ownership of "your" space, everyone takes ownership of the facility as a whole
- A building and program the honors diversity and equity
- Students
- Staff
- Resources and materials
- Make sure the cafeteria and food service is a priority - second home piece
- Over 50% of students are free and reduced lunch
- This needs to be their second home
- We need spaces that help us work with kids that are lost and traumatized, and that have social emotional and special needs
- Create a school that offers students the possibility of developing a range of skills
- Support alternative ways of motivating and teaching students
- Multiple means of teaching and learning
- Integration of disciplines
- Not just a place that houses students; the building itself becomes a learning tool for students
- Student learning is at the center
- A building that is multicultural in its design and openness
- Families that are not American-cultured can feel connection
- Robust areas for staff collaboration
- Interdisciplinary co-planning
- Promote inter/trans disciplinary teaching and learning
- Inclusive
- From SPED perspective - ensure accessibility for everyone

- A building that supports differentiated instruction
- Beyond academic support - community connections and services
- Social services – counseling
- Building designed as environment friendly and learning instrument
- Outdoor classrooms
- Extended day / adult education / ESL
- Community ED
- Fuller Middle School is central location
- Idea of open space and connection to nature
- Courtyard, open space
- Pond - water sampling
- Outdoor space as part of learning enrichment
- Adaptable to adult education
- Open from 7 - 11
- Board of Health is now in building but we lost the vision center
- A really important element - kids remain in school
- Immunizations
- Have a lot of newcomers - don't know how to access
- Consider the possibility of a childcare center
- Determine what we may want to fund beyond the MSBA template
- See this as a way of reaching our new identity
- We are all a product of the Horace Mann model and it's hard to see beyond it
- Explore what kind of environment we want
- Provide some space in the school that is equipped to engage a global classroom lesson
- Also, something like actually seeing surgery happening real time
- Higher ED is struggling with bricks and mortar – the world that students will occupy is changing so rapidly
- Our current FMS is largely lecture model
- Time for us not to try same, same thing

21st Century Learning Goals

The following set of priority "21st Century Learning Goals 1.0" for Fuller Middle School students was developed by the Educational Working Group (EWG) during Workshop One. Four teams of five participants each reviewed Fuller 5 Cs Learning Goals, as well as assorted other 21st century learning goals created by various school networks around the country, then worked to create their own set of learning goals. Each team presented their learning goals to the larger group. These goals are grouped below by like goals.

Whole Child Learning

- As an Organizing Principle for all Other Learning Goals

Collaboration and Communication

- Effective Communication
- Have a Voice
- To Effect Positive Change
- Emerge from Language Isolation to Collaborative Participation
- Staff and Students
- Understand How, What and Why we Communicate

Social and Civic Competence

- Within Fuller and in the Community
- Civic and Community Engagement
- Local, Community-Based Project Learning
- Community
- Empathy, Ethics and Civic Responsibility

Creativity and Imagination

- Imaginative and Joyous Risk-Taking
- Initiative and Curiosity
- Create Joy and Ownership

Critical Thinking

- Higher Order Thinking
- Permeated with Habits of Mind
- Problem Solving
- Analyze Information
- Executive Function – Ability to Prioritize and Strategize

Love of Learning

- Content is Not as Important as the Ability to Love Learning
- Self-Motivation
- Student Driven and Owned

Multicultural Literacy

Technology Transforming the Basics

Opportunities and Goals 2.0

The following Opportunities and Goals for the design of the renovated and/or new Fuller Middle School were brainstormed by the Educational Working Group (EWG) during Workshop Two.

- Deliver Special Education services in innovative ways that are welcoming and integrative
- Don't define Special Education too much
- Flexible use of space
- Disperse support staff, including specialists, throughout the school facility
- Create smaller learning communities as "sacred spaces"
- Provide centrally located Breakout Spaces
- Create a flexible building with movable walls
- Classrooms not "owned" by teachers
- Professional collaboration spaces for teachers
- Discover what it really means to be a "STEAM" school
- Utilize the STEAM experience of King Elementary School
- Think about how to "even the playing field" for non-King students entering FMS
- Position the Media Lab as the hub of the school
- Build with the larger community in mind
- FMS project as community development project
- Think about how to best facilitate community use as well as create bigger picture connections to the community
- Make decisions holistically about what is included in the design
- Whatever we create here connects to the FPS vision
- Include what we do in the rest of the district as part of the visioning process
- See Farley building as a resource for this project for things that cannot be accommodated at FMS
- Support FMS staff in terms of professional development and training
- Support a mindset shift
- Ongoing support on how to collaborate
- New mindset to share classrooms
- Support Habits of Success, Universal Design for Learning (UdL), and cognitive skill development
- Approaches to personalized learning should be horizontally and vertically aligned

21st Century Design Patterns 1.0

The following set of priority "21st Century Design Patterns" for the design of the new Fuller Middle School was developed by the Educational Working Group (EWG) during Workshop Two. Three teams of five participants each worked to create their own set of priority Design Patterns, after which each team presented to the larger group.

Open and Welcoming Entry
- First Impression Greeting Space

Distributed Dining
- Distributed Gathering Spaces
- Satellite Cafeterias / Café Style
- Cyber Dining

Learning Commons
- With Art, Music and Health, etc.
- Flexible Learning Styles
- Quiet Spaces

Classroom as MakerSpace
- Maker and Collaboration Spaces
- Collaborative Learning Spaces Including MakerSpaces

Display and Exhibition
- Walls Built for Display of Student Work
- Entire School as Display

Outdoor Connectivity
- Outdoor Space Use

Ubiquitous Learning

Professional Teacher Spaces
- Shared with Colleagues
- Teacher Collaboration Space

Breakout Spaces
- Non-Learning Spaces
- Accessible to Classrooms

Distributed Resources
- Distributed Adults

Flexible Furniture
- Variable Seating

Universal Access and Equity

Push-In Special Education

Visible Learning
- Spaces to Show Work in Progress

Paired/Flexible Classrooms

Vertically Integrated

Fuller Middle School's Guiding Design Principles

The following set of "Guiding Design Principles" for design of the renovated and/or new Fuller Middle School was developed by the Educational Working Group (EWG) during the Educational Visioning Workshop Two. Guiding Design Principles offer a framework of educational priorities that prove invaluable in helping stakeholders and design team members to set design goals and focus their work. This first iteration of Guiding Principles may continue to develop as the design process unfolds.

1. Transdisciplinary Instruction

- Project-Based and Real-World Learning
- Mastery-Based and Applied Learning

2. Personalized and Collaborative Learning

- Addresses Varied Learning Styles
- Personalized Learning Plans
- Student Voice and Choice

3. Whole Child, Whole Community

- Educating All Aspects of a Child
- Social Emotional Learning Skills
- Pride Within Cohort and Larger School

4. Visible Learning

- Connectivity
- Indoor/Outdoor Transparency and Connections

5. Community and Civic Hub

- Civic Campus and Community Resource
- Symbolic Hub of South Framingham
- Intergenerational and Community Connections

6. Adaptability

- Planned for Evolution
- Future Ready

While most of the stakeholders around the table for the PreK-8 Educational Visioning workshops were distinct from those at the Fuller Educational Visioning sessions, there are several very clear commonalities among each group's desire for how students will learn in this district. This solidifies our belief that this Educational Program represents the voice of our community and best interests of the students in our care.

Fuller Middle School

Mission Statement

The community of Fuller Middle School is committed to the academic, social, physical, and emotional development of every student. This commitment is supported by a philosophy based on differentiation, participation, high expectations, cooperation and respect for all.

School Overview

Fuller Middle School, established in September 1994, was named in honor of Dr. Solomon Fuller, a psychiatrist, and his wife Meta Fuller, a sculptor. A pioneering African-American family, the Fullers lived on Warren Road, near the current location of the Fuller Middle School, during the early part of the twentieth century. Dr. and Mrs. Fuller were leaders in their professions and in the Framingham community during their lives. They serve as models for the students of the school named in their memory.

Every student at Fuller Middle School is part of an academic team. A team consists of a group of teachers: teachers of academic subjects as well as educators for inclusion instruction and/or English Learner (EL) instruction and support as needed. All ELs receive English as a Second Language (ESL) instruction, regardless of the program model in which they are enrolled. Programs supported at Fuller Middle School include: Sheltered English Immersion (SEI), Transitional Bilingual Education (TBE), and Students with Limited or Interrupted Formal Education (SLIFE). ESL teachers teach foundational and transitional level students across the continuum of WIDA English proficiency levels. TBE teachers teach content-specific subjects to beginner and intermediate ELs. Academic teaming and team-based homerooms allow students to be part of a small, cohesive group of students who share the same classes and teachers. Teachers have collaboration time every day in the six-day rotation in order to plan integrated learning activities, address topics related to improving teaching and learning, discuss student concerns, and meet with parents. The goal of this model is to foster collaboration and shared accountability as we solve learning challenges together.

In addition to attending classes within their team, students also participate in Unified Arts courses – Art, Music, Health, Physical Education, Design and Engineering, World Language (French or Spanish), and Drama.

Demographics

A strength of our school is the rich diversity of our students and families, with the highest population of non-native English speakers among the three middle schools in the district. Fuller Middle School houses a TBE program using Spanish or Portuguese as a mode of instruction for content-area subjects (Math, Science and Native Language) and a SLIFE program. These programs consist of 13 staff, many of whom are native speakers of Spanish and Portuguese.

There are currently 161 English Learners and 49 Former English Learners (FELs, students who are one or two years out of the ELD program) at Fuller Middle School, representing 41% of the total school population. Also of note, more than 50% of the school's students speak a language other than English at home. Fuller Middle School has 9 dedicated classrooms for English language instruction, but this number may increase at any given time depending on the number of additional English Learners who enroll during the academic year.

Fuller Middle School supports students with disabilities through inclusion services as well as two substantially separate programs: Intellectual Impairments and Autism Spectrum Disorders. There are 126 students with Individualized Education Programs (IEPs), representing 24% of the student population. Currently, 44 students are provided instruction in the substantially separate programs. The 4 classrooms for the Intellectual Impairments program and one classroom for the Autism program each require a dedicated space with distinct specifications, as outlined later in this document. Inclusion services are provided in the standard curriculum classroom by assigning a special education co-teacher to the class. Often, the special educator determines it is necessary to work with a small group of students to support their individual needs. This is best accomplished in a separate room, in close proximity to the students' classroom, so students can receive immediate and effective personalized instruction and then rejoin their class as quickly as possible.

School-wide implementation of a positive behavioral interventions and supports (PBIS) system, including Restorative Practice, is unifying our community as we embrace our cultural, social, emotional, and academic diversity both in and out of the classroom.

Our approach is to foster healthy and positive relationships among and between students and adults, combined with comprehensive social and emotional supports and targeted instructional strategies for personalized learning. This work involves professional development, parent outreach and education, increasing student support systems, and regular collaborative use of data to inform instruction across all program areas and staff. Success will be realized when all of Fuller Middle School's students develop confidence and competence, with all students meeting or exceeding expectations.

Grade and School Configuration Policies

Current:

The Framingham Public Schools is a pre-kindergarten through 12th grade district with an enrollment of 9369 students. The District includes 1 preschool, 9 elementary schools, 3 middle schools, and 1 high school with an alternative campus for students identified as benefiting from a modified school day.

Juniper Hill School (Preschool)
- Pre-kindergarten
- 291 students

Brophy Elementary School
- Grades K-5
- 470 students
- Transitional Bilingual Education Program (Spanish)

Barbieri Elementary School
- Grades K-5
- 683 students
- Two-Way Bilingual (Spanish)

Dunning Elementary School
- Grades K-5
- 473 students

Hemenway Elementary School
- Grades K-5
- 570 students

King Elementary School
- Grades K-3
- 279 students
- STEAM School
- Transitional Bilingual Education Program (Portuguese)

McCarthy Elementary School
- Grades K-5
- 563 students

Potter Road Elementary School
- Grades K-5
- 510 students

Stapleton Elementary School
- Grades K-5
- 369 students
- Emotional Disability Program

Woodrow Wilson Elementary School
- Grades K-5
- 574 students
- Transitional Bilingual Education Program (Portuguese)

Cameron Middle School
- Grades 6-8
- 540 students
- Emotional Disability Program

Fuller Middle School
- Grades 6-8
- 516 students
- Transitioning to a STEAM School
- SLIFE Program
- Transitional Bilingual Education Program (Spanish and Portuguese)

Walsh Middle School
- Grades 6-8
- 760 students
- Two-Way Bilingual (Spanish)

Framingham High School
- Grades 9-12
- 2158 students
- Alternative High School Campus: 44 students

Student assignment and grade configurations are based on several complicated factors including feeder systems, school neighborhoods, school choice, school programming (STEAM and Two-Way Bilingual), English Learner status, and special education programs. This has resulted in space and inequity issues that are at the early stages of being addressed by the district.

Proposed:

The District has spent considerable time and resources in reviewing the current and future needs of the Framingham Public Schools. Grade and school configurations are not being revised at this time. However, school programs continue to expand. For example, due to the overwhelming success of our Two-Way Bilingual (Spanish) Program at Barbieri Elementary School, the Framingham Public Schools will be welcoming its first Two-Way Bilingual (Portuguese) kindergarteners in the fall of 2018 at Potter Road Elementary School. With the growing English Learner population and the increased capacity of educators through their Sheltered English Immersion (SEI) training, ELs are more frequently being placed at their neighborhood schools. Lastly, Fuller Middle School is continuing its transition to becoming a STEAM middle school. As the students in King Elementary School's oldest class are already in third grade, they are only 3 years away from entering Fuller Middle School. These students and their families expect and deserve a continuation of the STEAM education they have experienced since kindergarten.

Class Size Policies

Current:

While contractual guidelines ensure class sizes do not exceed 25 students for grades 6 through 8, the diverse range of needs of the students at Fuller Middle School necessitate keeping class sizes as small as possible. Whenever feasible, class sizes are reduced and co-teaching is incorporated to provide instructional supports for all students, particularly our English Learners and students with disabilities. Currently, class sizes for general education and inclusion classes range between 17 and 26 students, with an average of approximately 20 students per class.

Due to student migration that occurs throughout the year, our English as a Second Language (ESL) and Transitional Bilingual Education (TBE) classes tend to be the most impacted by class size concerns as the year progresses. This can lead to splitting classes, creating new classes, and reconfiguring schedules during the year. While school and district administrators cannot predict the number and needs of students at any given grade level in a particular year, the district consistently enrolls English Learners all year long, some of whom have limited or interrupted formal education. Fuller Middle School is prepared to meet these needs through the support of an ESL Department Head, English Language Development (ELD) coach, and Students with Limited or Interrupted Formal Education (SLIFE) teacher. With continuous, year-long student enrollment as a constant factor, the staff at Fuller Middle School work hard to maintain a safe and welcome learning environment at all times. This requires multiple venues for teachers to work with small groups of students, as well as the flexibility to create additional classes as needed.

Proposed:

There are no proposed changes to class sizes.

School Scheduling Method

Current:

Fuller Middle School follows a traditional bell schedule. The school day runs from 8:08 AM to 2:25 PM and consists of 2 45-minute periods, 3 50-minute periods, 1 60-minute period and 30 minutes for lunch. In addition, there is a 25-minute What I Need (WIN) block each day for intervention and extension of learning. Since the school is 1:1 with technology, the day begins with a 5-minute homeroom where students hear morning announcements and pick up their Chromebooks, and ends with a 3-minute homeroom to return their Chromebooks. The periods rotate through a 6-day cycle so that each class meets for the same number of minutes over the course of those 6 days.

The current school bell schedule is detailed below:

Time	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
8:08 - 8:13	Homeroom					
8:15 - 9:05 50	A (8th Specials)	B(7th Specials)	C (6th Specials)	D (8th Specials)	F (7th Specials)	G 6th Specials)
9:07 - 9:57 50	B	C	D	F	G	A
9:59-10:49 50	C	D	F	G	A	B
10:50 - 11:18	WIN - Social Comp					
11:20 - 11:50	Lun E / D / D / F / F / Lun E / G / Lun E / G / Lun E / A / A / B / B / Lun E / C / Lun E / C					
11:50 - 12:20	D / Lun E / Lun E / F / G / Lun E / A / Lun E / Lun E / B / C / Lun E					
12:20 - 12:50	D / Lun E / F / Lun E / Lun E / G / A / Lun E / B / Lun E / Lun E / C					
12:50 -1:35 45	F	G	A	B	C	D
1:37-2:22 45	G	A	B	C	D	F
2:22 - 2:25	Homeroom					

Proposed:

The proposed Fuller Middle School will be able to support two 30-minute lunch servings due to the size of the commons area, which is also being designated as the cafeteria. In order to coordinate two lunch servings for three grade levels, students will be assigned lunch by subject area rather than grade. This means students will attend lunch based on which class period meets during the lunch block. The two lunch servings will occur during the first 30 minutes of the period and the last 30 minutes of the period in order to provide an uninterrupted lesson for all students. This is an improvement over the current lunch program as students who have second lunch under the existing model lose valuable instructional time since they must leave class in the middle of the period and return to finish their lesson after lunch.

While no other proposed changes are being made at this time, a new schedule may need to be developed as the school transitions to a STEAM model. This would be considered if it was determined that the current bell schedule does not provide the necessary structure to guide teaching while also maintaining flexibility to allow students appropriate access to all curricular areas, instruct through an interdisciplinary approach, and promote staff collaboration. The school schedule should provide teaching staff with the flexibility to combine classes or create extended blocks of instruction as a means of delivering interdisciplinary lessons or providing longer periods for projects.

Teaching Methodology and Structure

Current:

The Fuller Middle School faculty and staff are committed to preparing students for success beyond middle and high school, so that all students are equipped to take on the ever-changing landscape of future college and career options. Teachers follow district-approved curriculum that is aligned with state frameworks. Through data-driven decision making based on student conduct, formative assessments, attendance rates, teacher feedback and student growth rates, the staff determine the appropriate interventions for each student.

The current model at Fuller Middle School is a team model within grade levels. Each grade level consists of two general education/inclusion teams (Grade 6--Lime and Opal; Grade 7--Platinum and Tangerine; Grade 8--Blue and Green). In addition, Fuller Middle School has the Crimson Team (substantially separate) and the Gold Team (Bilingual). For the most part, each staff member is assigned within only one team, which allows educators to truly know their students. The staff for each team meet three times per six-day cycle to discuss student data including academic performance, social and emotional concerns, conduct, attendance and any other issues that may impede student learning. In addition to these grade-level team meetings, each teacher participates in departmental meetings twice per six-day cycle to review curriculum, monitor vertical alignment, develop goals, plan lessons and discuss instructional strategies.

All staff are assigned to 4 classes and a What I Need (WIN) group. On 4 days of the six-day cycle, teachers work with small groups of students during the WIN block to provide interventions and extensions, and to conference with students. On the other 2 days of the six-day cycle, teachers provide social/emotional curriculum during this block. This WIN time is critical to meeting the specific, targeted needs of individual students and to reinforce school-wide behavior expectations.

In addition to their academic courses, students rotate through a series of specials subjects intended to provide a broad enrichment and addition to the core academics. In 6th grade, students can elect to take band or string orchestra; all other students take one trimester each of chorus, drama and music. Students in grades 7 and 8 choose either band, string orchestra, drama or chorus, which meets once per cycle for the year. In addition to a performing art, students rotate through fine art, health, and technology education for approximately 6 weeks each, and physical education for two sessions of six weeks.

The Framingham Public Schools meet students' curricular needs through a comprehensive, standards-based program. At this time, some curriculum units are taught concurrently within different content areas to provide a richer and more integrated learning experience. An example of this more interdisciplinary approach is the Holocaust Unit in which students read literature, conduct research, and study the history of the Holocaust in both their English Language Arts and Social Studies classes.

English Language Arts

The ELA curriculum is fully aligned with the Massachusetts Curriculum frameworks and provides students with opportunities to develop their reading and writing skills while simultaneously helping students grow as critical thinkers. The district has provided professional development to the staff on the gradual release of responsibility, including providing training for administrators on the "look fors" so they can provide continual feedback and support to educators in their implementation of this instructional practice. The curriculum for each grade level includes the following thematic units of instruction:

Grade 6:
Folktales around the World, The Craft and Composition of Argument/Persuasion, Survival: Decisions and Consequences (unit on theme, characterization, setting, conflict, point of view as studied through various fictional and nonfictional texts), Civil Rights, and Poetry

Grade 7:
Greek Mythology, Perseverance, Poetry, Civil Rights and The Art of Argument

Grade 8:
Short Stories, Civil Rights, Poetry, Shakespeare's Midsummer Night's Dream and Hope Endures (Holocaust)

Mathematics

The district's middle school Mathematics curriculum aligns with the Massachusetts Curriculum Frameworks and provides an opportunity for students to follow an accelerated pathway which allows them to enter high school ready to study Geometry. All students complete the traditional 6th grade mathematics course to provide students with time to develop more mature thinking and reasoning skills. At the end of 6th grade, students' MCAS scores, formative assessment data, school achievement and teacher recommendations are reviewed to determine if the traditional path or accelerated path is indicated. In the accelerated program, students complete the 7th grade, 8th grade and Algebra 1 standards over the course of their two remaining years in middle school. The mathematics teachers emphasize the Standards of Mathematical Practice as overarching goals in their lessons, and have recently implemented skills-based performance tasks that assess these practice standards.

Science

The district's Science curriculum is currently in transition as we adopt the 2016 Massachusetts Science and Technology/Engineering Curriculum Frameworks. This is the last of our transition years, with full integration of the standards (Earth, Space, Life and Physical Sciences) in all grades. The focus of professional development has been on the Science and Engineering Practice Standards, both in terms of what the skills associated with these standards look like in the Science classroom and how to embed these skills into daily lessons.

Social Studies

The district's Social Studies curriculum is aligned with the Massachusetts Curriculum Frameworks, while emphasizing important themes including freedom, respect for human dignity, the impact of geography on civilization, and the rise and fall of civilizations. In 6th grade, students learn about the foundations of geography, economics and world religions. Students then explore each continent through a geographic, cultural and civic lens. In 7th

grade, students study the evolution of humankind through an exploration of ancient civilizations including Mesopotamia, Greece, Rome, Egypt and others. Students will also study the fall of Rome, the encounters between Christianity and Islam, and medieval Europe. In 8th grade, students are formally introduced to United States History and Government. Areas of focus include the American Revolution and its causes, the formation of the United States government, westward expansion, the Civil War and its causes, Reconstruction, Immigration and Civil Liberties, World War I, the Great Depression and the causes World War II. Teachers receive professional development on such topics as civil discourse, identity, and rights and liberties to promote civic engagement in the classroom.

Proposed:

As the current model has proven itself to be effective, Fuller Middle School intends to continue with this structure in the new facility. Aside from the substantially separate and transitional bilingual teams, each grade-level team will consist of an ELA teacher, a Mathematics teacher, a Science teacher, a Social Studies teacher, a Special Education teacher and an English as a Second Language teacher. The World Language teachers will continue to work in a cross-teaming model.

To improve upon this model, the proposed facility should create grade-level neighborhoods (cohorts) to create smaller communities within the larger Fuller Middle School. This design will be essential to ensuring students and staff feel a sense of belonging and connectedness, while also providing the necessary supervision of all students within the cohort.

Team meetings will still focus on individual student interventions, but will also provide opportunities for co-planning within and across disciplines. Teachers will work collaboratively to design projects with an interdisciplinary approach as often as possible. To this end, the proposed Fuller Middle School will have an auxiliary suite of offices within each cohort which contains a small group seminar space. These spaces provide a quiet place for team meetings, department planning sessions, professional development, itinerant use and staff work area.

Whenever practical, teachers will regroup students using the classroom breakout spaces to accommodate individual needs, teach mini-lessons, work on projects, and conference with student collaboration teams. By providing movable classroom walls to create larger learning environments, teachers can join classes for a truly interdisciplinary lesson. This helps to nurture the understanding that all teachers are responsible for

a child's success, not just within their own particular class, but across the entire spectrum of that child's education.

The Classroom Breakout Spaces are intended to be used for instructional purposes, both by students collaborating on projects and by co-teachers working with a subset of a class. The breakout spaces give teachers and students the flexibility necessary for inquiry- and project-based learning opportunities, while also providing staff with a quiet place to differentiate instruction for our English learners, students with disabilities and other students in need of intervention. This practice of splitting a co-taught class to differentiate based on student need is well established at Fuller Middle School, so it is expected that these breakout spaces will be used regularly throughout the day. The Small Group Seminar Spaces, on the other hand, are meant to provide staff with a dedicated space for research, collaboration, professional development and team meetings. These seminar spaces will be furnished with computers, curricular materials and a variety of resources, making them the hub for interdisciplinary co-planning and collaboration.

The proposed Fuller Middle School will continue to follow the district curriculum as currently written. As more units and projects are developed over time, students will be provided additional opportunities to learn through interdisciplinary lessons that are aligned with real-world situations. As Fuller Middle School continues its transition to a STEAM school, it promises to present more project-based learning opportunities tailored to student interests as a means of providing engaging, relevant and contemporary challenges. By providing options (choice and voice) to students, instruction becomes personalized and differentiated to match the interests, backgrounds and readiness levels of students. This will ensure optimal learning occurs through flexible groupings that allow educators to individualize instruction to meet the unique needs of students. Furthermore, it will support Fuller's inclusive model that focuses on each child's intellectual, social and emotional needs. The proposed Fuller Middle School, therefore, includes smaller classroom breakout spaces to allow groups of students to collaborate or conference, while also providing the cohort commons for larger groups to come together for co-teaching, interdisciplinary lessons, presentations, investigations, visits with scientists and other experts from the field, cross-team collaborations and other tasks. Along the same lines, the proposed facility should include outdoor learning spaces so students can explore their environment and make appropriate connections to their learning. Each cohort is to be provided with convenient access to an outdoor learning area to study living systems, environmental science, botany and other subjects related to elements of the environment, as well as to provide teachers the opportunity to teach traditional subjects outside. Depending on the weather, these spaces may also be used for activities which affect air quality, such as painting.

Project-based tasks, which require the flexible large- and small-group learning spaces described above, are critical to student achievement at Fuller Middle School. Since more than 50% of the students speak a language other than English in their home, and since 24% of students have an Individualized Educational Program (IEP), project-based tasks provide an entry point to learning regardless of a students' background and level of readiness. Furthermore, these tasks provide real-world, hands-on experiences for students and give meaning to the content students are learning. These tasks will integrate curriculum from multiple content areas and require students to investigate topics, develop their own hypotheses, conduct research and present solutions or resolutions. Such projects will require higher-level thinking and reasoning skills, particularly the ability to analyze, critique, synthesize, and design in a variety of

modalities. Students will develop their skills in articulation, debate, written and oral argument, presentation, building physical representation, and public speaking. They will also become better listeners and collaborators as they learn to appreciate the talents and ideas their peers bring to the group. Above all, students will learn the value of asking questions, the first step in paving the way for one's own learning. Through inquiry, students will understand not only what they are learning, but they are learning it. This, in turn, helps students gauge their own progress and assess their own skills. These are the skills we want all students to acquire so they will be successful beyond high school.

Visible learning is essential to promoting the growth mindset, therefore students and teachers will emphasize process as well as product with all tasks. Thus, student thinking will be seen and heard in every way possible. Students' works-in-progress will be on display, classroom workspace (tables and desks) will encourage student dialogue and collaboration, and breakout and common areas will provide opportunities to see and hear students interacting with each other as they engage in meaningful tasks. Additionally, building some level of transparency, to and from classroom and lab spaces and into shared learning commons, will be important.

The school district recognizes that teachers will need support in building their own confidence as they shift their instructional practice to match this model. The district is committed to providing educators with the professional development and ongoing support to develop these skills and build their own capacity. This will include training in project-based and personalized learning, effective Professional Learning Communities (PLCs), data-based decision making, and the growth mindset.

Teacher Planning and Room Assignment Policies

Current:

Teachers at Fuller Middle School are assigned teaching schedules, duties and planning periods in accordance with the Framingham Teachers' Association contract. All teachers have one planning period per day. Teachers are provided with their own individual classrooms, including ESL teachers and special educators. Classrooms are arranged by cross-discipline grade level teams. Teachers regularly meet for team and department meetings in classrooms as there does not exist adequate planning and work space for the staff. For the purpose of these collaboration meetings, teachers' schedules provide for common planning time.

Proposed:

At the foundation of interdisciplinary instruction and project-based learning is an understanding of the importance of providing teachers with sufficient time and the appropriate resources for collaborating. A large, dedicated space for materials, computers, printers, and conference tables is essential to this design. Breakout spaces, small offices and individual teacher desks are also necessary to provide quieter space for independent work or co-planning. Smaller conference spaces should be located within each cohort neighborhood to provide opportunities for teachers to meet regularly for team meetings and co-planning. By integrating these conference spaces into the cohort neighborhoods, the rooms become easily accessible to staff which increases the likelihood they will be used by teachers during their regular planning time.

Classrooms should be well-lit, using natural light whenever possible, and provide adequate space to reconfigure tables and chairs to fit the needs of any lesson (cooperative tasks, investigations, labs, assessment, learning centers, etc). To increase the flexibility of the space, classrooms should have the added feature of combining to create one larger room through the existence of a removable wall to provide for larger interactions between multiple groups. Furniture should be adaptable and flexible as well, allowing students to work independently or collaboratively, depending on the task.

While the traditional model assigns a separate classroom to each teacher, the district recognizes this does not always represent the best utilization of space. Furthermore, such a practice encourages teachers to remain at their desks in their classrooms during planning periods rather than seek out opportunities to work with colleagues. For this reason, the Fuller Middle School design does not provide for a separate classroom for each teacher. Rather, classrooms will be shared when necessary to more efficiently use space, increase collaboration, and promote peer observations. Thus, it is critical that the new facility provide teachers with a quiet place to work by arranging teacher desks within small teacher planning rooms (shared between two staff members), while also including the larger teacher workspaces to foster collaboration.

Due to the large number of English learners (41% of students) and students with disabilities (24% of students), Fuller Middle School will continue to use a co-teaching model whenever possible to most effectively meet the needs of students while providing the least restrictive and most inclusive environment possible for all students. To this end, the co-teachers often design

lessons that allow them to conference with smaller groups of students or teach separate lessons to different groups based on student readiness. To maximize the use of space and reduce the number of classrooms in the proposed Fuller Middle School, our facility design should contain classroom breakout spaces large enough for an inclusion or ESL co-teacher to work with approximately half of a co-taught class (12 students) while the rest of the students remain in the classroom with the general education teacher. By creating these small-group instruction spaces that can also be used for team meetings and co-planning sessions, we have eliminated the need for additional classrooms and simultaneously increased opportunities for teacher and/or student collaboration.

Each grade level will have its own designated area ("cohort neighborhood") in the new Fuller Middle School. All grade-specific classes (ELA, Math, Social Studies and Science) will be taught within these areas. In addition, each cohort neighborhood shall include designated ESL and Special Education classrooms to fully integrate all students within the whole school community. Thus, in each grade-level cohort, 2 Science classrooms will be designated for the general education Science classes. In addition, each cohort will be assigned 1 Science classroom for either the EL or Substantially Separate program. While the proposed model does not meet the minimum usage requirement of 85%, we believe these rooms are necessary in order to deliver our educational program. Science lessons involve hands-on experiments that must be set up in advance of the class period. These labs must remain intact for the duration of the day since all classes that rotate through the room will need the same set-up. Based on enrollment, Fuller Middle School will need 8 general education Science sections for each grade level. Having only one Science classroom would not suffice.. Thus, two general education Science classrooms will be necessary for each grade. Since our Transitional Bilingual Education (TBE) Science classes will need additional resources including translated materials, labels, and posters, and since the TBE classes may follow a modified scope and sequence depending on the educational background and needs of the students in this program, a separate Science classroom is necessary to provide the appropriate supports, resources and lab set-ups for the students. Thus, a TBE (Portuguese) Science classroom and a TBE (Spanish) Science classroom are essential to our educational program. Finally, for reasons similar to the TBE Science needs, our Substantially Separate program follows a modified curriculum and therefore needs its own Science classroom. If the TBE and Substantially Separate Science classes were to be moved into the general education Science classrooms during the unused periods, it would be necessary for teachers to break down and set up the labs throughout the day in order to create a safe and secure learning environment for all students.

Regarding the English Learner Classrooms, the TBE classrooms are language-specific (Spanish and Portuguese). The resources, including textbooks, reference materials, posters, and word walls are completely different and require separate spaces depending on the language. Thus, separate classrooms for the TBE-Spanish and TBE-Portuguese programs are necessary. Additionally, the district believes in providing an equitable educational experience for all students, regardless of program. This includes, for example, providing a designated Math classroom that looks and feels the same for our TBE students as for a general education student. The reference materials, manipulatives, posters, and student work on display should all be related to Mathematics. This same rationale applies to Social Studies and Language Arts. The district is able to provide this model in the current Fuller Middle School and believes it is important to continue providing the same experience in the new Fuller Middle School.

To provide greater access to support services and school leaders, it is essential that small auxiliary administrative suites be located within each grade-level cohort neighborhood. These auxiliary suites will house two student support personnel, a department head and an instructional coach, thus providing students with immediate access to the necessary social and emotional supports while simultaneously increasing teacher access to instructional resources. Each auxiliary suite shall also contain a small group seminar space for professional development, department planning sessions and grade-level team meetings. This design also helps the school move away from the more traditional model of the instructional hub separated from the administrative offices located at the front of the school. Since the district emphasizes that students' academic growth and social-emotional well-being are the responsibility of all adults, it is crucial to create these pockets of support and instructional leadership throughout the building, closer to the students.

An essential component of the Fuller Middle School program must be state-of-the-art science laboratories that provide the space to conduct experiments in a safe and fully-equipped environment. This includes lab benches, equipment and the appropriate technology to allow for science exploration of the life, space, earth and physical sciences.

As a STEAM school, Fuller Middle School needs designated space for students to develop their technological skills, design and build models, and generally explore, invent and create. To this end, Fuller Middle School requires three unique spaces: a classroom with computers equipped with the latest software for engineering, programming, video production and graphic design; a fabrication laboratory (FabLab) with 3-D printers and computers; and a large open classroom outfitted with large tables, tools, equipment and various supplies for a designated MakerSpace to provide hands-on project experience. These "creative" spaces must be large enough to provide students with the ability to safely move about the room as they design and build their projects, whether individually or in teams. While the Technology Education teacher will teach classes out of the computer classroom, she will utilize the FabLab and MakerSpace as part of her instruction whenever feasible. Furthermore, upon completion of the new facility, Fuller Middle School will need a STEAM instructional coach whose primary responsibilities will be to teach digital technology lessons to students as they work on projects in the FabLab and MakerSpace, and to work with teachers to design interdisciplinary projects aligned with the Fuller STEAM vision.

It should be noted that every teaching space, classroom breakout space and cohort common will be designed to accommodate hands-on project experiences. The cohort commons will be equipped with computers, whiteboards, and large work surfaces to support technical collaboration as well as hands-on project work. This provides flexibility so that, regardless of whether a Vocational Technology classroom is already in use, students can still immerse themselves in hands-on tasks. The 2,000 square foot MakerSpace is intended to accommodate large, specialized, noisy and/or potentially hazardous equipment that is not appropriate for the classroom. The MakerSpace will be provided with both woodworking and metalworking equipment, a vacuum exhaust system, and overhead electric power drops for flexibility. It will be located with a large exterior door easily accessible to the deliveries area for receipt of oversized materials. To complement the MakerSpace, the Fabrication Lab will be for digital fabrication, utilization of computers, 3-D printing, and other equipment use such as laser cutting to fabricate from digital files. Since the digital fabrication lab requires less space than a traditional wood shop, the Fabrication Lab is 1,200 square feet rather than 2,000 square feet.

It is complemented by the Tech Classroom, where many of the digital files for fabrication will be created by students.

The arts are an integral part of the Fuller Middle School STEAM program. Thus, adequate space, storage and resources are essential in the consideration of both configuration and location of the arts rooms. The arts classrooms should be centralized within the building, ideally near the large commons/cafetorium, so the arts are recognized for its contributions to the STEAM program. By strategically placing these classrooms around the common/cafetorium, this larger open space becomes an extension of the classroom which allows students to easily showcase their work and perform for large audiences throughout the day.

Outlined below is a room utilization chart to further illustrate many of our needs:

Classroom	Use	New or Existing Program
General Classroom 1	4 Grade 6 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 2	4 Grade 6 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 3	4 Grade 7 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 4	4 Grade 7 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 5	4 Grade 8 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 6	4 Grade 8 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 7	4 Grade 6 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 8	4 Grade 6 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 9	4 Grade 7 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 10	4 Grade 7 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 11	4 Grade 8 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 12	4 Grade 8 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 13	4 Grade 6 Social Studies Classes, WIN Block, SLIFE Portuguese Literacy	Existing
General Classroom 14	4 Grade 6 Social Studies Classes, WIN Block	Existing
General Classroom 15	4 Grade 7 Social Studies Classes, WIN Block, Grade 7 Spanish Language Arts, Grade 8 Spanish Language Arts	Existing
General Classroom 16	4 Grade 7 Social Studies Classes, WIN Block, Grade 8 Portuguese Language Arts	Existing
General Classroom 17	4 Grade 8 Social Studies Classes, WIN Block, Grade 8 ESL 1 Social Studies	Existing

General Classroom 18	4 Grade 8 Social Studies Classes, WIN Block	Existing
General Classroom 19	Health Classroom, WIN Block	Existing
General Classroom 20	Drama Classroom, WIN Block	Existing
General Classroom 21	3 World Language Classes, WIN Block	Existing
EL Classroom 1	1 Spanish Language Arts Class, 5 ESL Classes, ~~4 Spanish Language Arts Classes,~~ WIN Block	Existing
EL Classroom 2	2 Portuguese Language Arts Classes, 4 ESL Social Studies Classes, ~~4 Portuguese Language Arts Classes~~, WIN Block	Existing
EL Classroom 3	1 Portuguese Language Arts Classes, 5 ESL Social Studies Classes, ~~4 Spanish Math Classes~~, WIN Block	Existing
EL Classroom 4	1 SLIFE Class, 3 ESL Classes, 1 ESL Social Studies Class, ~~4 Portuguese Math Classes~~, WIN Block	Existing
EL Classroom 5	1 SLIFE Class, 3 Spanish Math Classes, 4 ~~ESL/Social Studies Classes~~, WIN Block	Existing
EL Classroom 6	4 Portuguese Math Classes, ~~4 ESL/Social Studies Classes~~, WIN Block	Existing
~~EL Classroom 7~~	~~4 ESL/Social Studies Classes, WIN Block~~	~~Existing~~
~~EL Classroom 8~~	~~4 ESL/Social Studies Classes, WIN Block~~	~~Existing~~
~~EL Classroom 9~~	~~4 SLIFE Classes, WIN Block~~	~~Existing~~
SPED Classroom 1	4 Sub Separate ELA Classes, WIN Block	Existing
SPED Classroom 2	4 Sub Separate Math Classes, WIN Block	Existing
SPED Classroom 3	4 Sub Separate Social Studies Classes, WIN Block	Existing
SPED Classroom 4	Autism Classroom, WIN Block	Existing
SPED Classroom 5	Autism Classroom, WIN Block	New, Anticipated Need
SPED Classroom 6	Life Skills/Vocational Substantially Separate Classroom for Students with Intellectual Impairments	Existing
Science Classroom 1	4 Grade 6 Science Classes, 2 Grade 7 Science Classes, WIN Block	Existing
Science Classroom 2	4 Grade 6 Science Classes, 2 Grade 7 Science Classes, WIN Block	Existing

Science Classroom 3	2 Grade 7 Science Classes, 4 Grade 8 Science Classes, ~~4 Grade 7 Science Classes~~, WIN Block	Existing
Science Classroom 4	2 Grade 7 Science Classes, 4 Grade 8 Science Classes, ~~4 Grade 7 Science Classes~~, WIN Block	Existing
Science Classroom 5	3 Substantially Separate Science Classes, 3 TBE Spanish Science Classes, ~~4 Grade 8 Science Classes~~, WIN Block	Existing
Science Classroom 6	1 Substantially Separate Science Class, 1 SLIFE Science Class, 4 TBE Portuguese Science Classes, ~~4 Grade 8 Science Classes~~, WIN Block	Existing
~~Science Classroom 7~~	~~4 Substantial Separate Science Classes, WIN Block~~	~~Existing~~
~~Science Classroom 8~~	~~4 TBE Spanish Science Classes (Grades 6, 7, 8 and SLIFE), WIN Block~~	~~Existing~~
~~Science Classroom 9~~	~~4 TBE Portuguese Science Classes (Grades 6, 7, 8 and SLIFE), WIN Block~~	~~Existing~~
~~Technology Education Classroom~~	~~4 Technology Education Classes, WIN Block~~	~~Existing~~
Technology Shop	MakerSpace for instructional use as needed for projects* and to support the Technology Education curriculum, scheduled for district review in 2018-2019. *Note: The district has hired a STEAM coach for the 2018-2019 academic year. This individual would be able to support the academic programming of this space.	Existing
Fabrication Laboratory	4 Technology Education Classes, WIN Block; Instructional space for 3-D model design and printing as needed	New/Replaces existing Technology Education Classroom
Art Classroom	4 Art Classes, WIN Block	Existing
Band Classroom	4 Band Classes, WIN Block, 1 Strings Instrumental Class	Existing
Chorus Classroom	4 Chorus Classes, WIN Block	Existing

Below is a sample schedule to indicate room usage for the EL Classrooms. It should be noted that all of these classrooms will also be assigned a What I Need (WIN) class during the intervention block (not listed here).

	EL Room 1	EL Room 2	EL Room 3	EL Room 4	EL Room 5	EL Room 6	Moved to Gen. Classrooms (see Utilization Chart above)		
A	ESL 4 (7-8)	Port LA (7)	ESL 2 (8)	ESL 1 (8)	Span Math (6)	Port Math (6)	~~Span LA (7)~~		
B	Span LA (6)	Port LA (6) 2001	PLA (6)						
C	ESL 1 (6)	ESL 3 Soc St (8)	ESL 2 (6)	ESL 1 (6)	Span Math (8)	Port Math (8)			
D	ESL 3 (7-8)	ESL 2 Soc St. (6-7)	ESL 1 Soc St (6-7)	ESL 1 Soc St (6-7)					
F	ESL 3 (6)	ESL 3 Soc St (7)	ESL 2 (7)	ESL 1 (7)	SLIFE Numeracy (Multi)	Port Math (6)	~~Span LA (8)~~	~~Port LA (8)~~	
G	ESL 4 (6-7)	ESL 3 Soc St (6)	ESL 2 Soc St (8)	SLIFE Spanish Literacy	Span Math (7)	Port Math (7)		~~SLIFE Portuguese Literacy~~	~~ESL 1 Soc St (8)~~

	~~EL Room 1~~	~~EL Room 2~~	~~EL Room 3~~	~~EL Room 4~~	~~EL Room 5~~	~~EL Room 6~~	~~EL Room 7~~	~~EL Room 8~~	~~EL Room 9~~
~~**A**~~	~~ESL 4 (7-8)~~		~~ESL 2 (8)~~	~~ESL 1 (8)~~	~~Span Math (6)~~	~~Port Math (6)~~	~~Span LA (7)~~	~~Port LA (7)~~	
~~**B**~~							~~Span LA (6)~~	~~Port LA (6) 2001~~	~~Port LA (6)~~
~~**C**~~		~~ESL 3 Soc St (8)~~	~~ESL 2 (6)~~	~~ESL 1 (6)~~	~~Span Math (8)~~	~~Port Math (8)~~			~~ESL 1 (6)~~
~~**D**~~	~~ESL 3 (7-8)~~	~~ESL 2 Soc St. (6-7)~~		~~ESL 1 Soc St (6-7)~~					~~ESL 1 Soc St (6-7)~~
~~**F**~~	~~ESL 3 (6)~~	~~ESL 3 Soc St (7)~~	~~ESL 2 (7)~~	~~ESL 1 (7)~~	~~SLIFE Numeracy (Multi)~~	~~Port Math (6)~~	~~Span LA (8)~~	~~Port LA (8)~~	
~~**G**~~	~~ESL 4 (6-7)~~	~~ESL 3 Soc St (6)~~	~~ESL 2 Soc St (8)~~		~~Span Math (7)~~	~~Port Math (7)~~	~~SLIFE Spanish Literacy~~	~~SLIFE Portuguese Literacy~~	~~ESL 1 Soc St (8)~~

Below is a sample schedule to indicate room usage for the Science Classrooms. It should be noted that all of these classrooms will also be assigned a What I Need (WIN) class during the intervention block (not listed here). We carefully considered the recommendation to furnish Maker Space features into the science classrooms. However, given the anticipated 100% utilization of the science classrooms under our revised program, this would prohibit the use of that equipment by any of the other teachers. Therefore, we instead chose to consolidate the Technology Classroom into the Fabrication Lab to increase efficiencies.

	Science Room 1	**Science Room 2**	**Science Room 3**	**Science Room 4**	**Science Room 5**	**Science Room 6**	~~**Science Room 7**~~	~~**Science Room 8**~~	~~**Science Room 9**~~
A	Gr. 6 Science	Gr. 6 Science	Gr. 7 Science	Gr. 7 Science	Sub Separate Science	Gr. 6 Port Science			
B	Gr. 6 Science	Gr. 6 Science	Gr. 8 Science	Gr. 8 Science	Gr. 8 Spanish Science	Gr. 8 Port Science			
C	Gr. 7 Science	Gr. 7 Science	Gr. 8 Science	Gr. 8 Science	Gr. 7 Spanish Science	Gr. 7 Port Science			
D	Gr. 6 Science	Gr. 6 Science	Gr. 7 Science	Gr. 7 Science	Sub Separate Science	SLIFE Science (multi)			
F	Gr. 6 Science	Gr. 6 Science	Gr. 8 Science	Gr. 8 Science	Gr. 6 Spanish Science	Sub Separate Science			
G	Gr. 7 Science	Gr. 7 Science	Gr. 8 Science	Gr. 8 Science	Sub Separate Science	Gr. 6 Port Science			

	~~**Science Room 1**~~	~~**Science Room 2**~~	~~**Science Room 3**~~	~~**Science Room 4**~~	~~**Science Room 5**~~	~~**Science Room 6**~~	~~**Science Room 7**~~	~~**Science Room 8**~~	~~**Science Room 9**~~
~~**A**~~	~~Gr. 6 Science~~	~~Gr. 6 Science~~	~~Gr. 7 Science~~	~~Gr. 7 Science~~			~~Sub Separate Science~~		~~Gr. 6 Port Science~~
~~**B**~~	~~Gr. 6 Science~~	~~Gr. 6 Science~~			~~Gr. 8 Science~~	~~Gr. 8 Science~~	~~Sub Separate Science~~	~~Gr. 8 Spanish Science~~	~~Gr. 8 Port Science~~
~~**C**~~			~~Gr. 7 Science~~	~~Gr. 7 Science~~	~~Gr. 8 Science~~	~~Gr. 8 Science~~		~~Gr. 7 Spanish Science~~	~~Gr. 7 Port Science~~
~~**D**~~	~~Gr. 6~~	~~Gr. 6~~	~~Gr. 7~~	~~Gr. 7~~			~~Sub~~	~~SLIFE~~	

	~~Science~~	~~Science~~	~~Science~~	~~Science~~			~~Separate Science~~	~~Science (multi)~~	
F	~~Gr. 6 Science~~	~~Gr. 6 Science~~			~~Gr. 8 Science~~	~~Gr. 8 Science~~	~~Sub Separate Science~~	~~Gr. 6 Spanish Science~~	~~Gr. 6 Port Science~~
~~G~~			~~Gr. 7 Science~~	~~Gr. 7 Science~~	~~Gr. 8 Science~~	~~Gr. 8 Science~~			

Lunch Programs

Current:

The Fuller Middle School lunch program provides 3 lunch servings per day to up to 210 students at a time. In addition, Fuller Middle School provides breakfast to students each morning before school.

Proposed:

The proposed Fuller Middle School must continue to provide breakfast and lunch service each school day. The proposed facility will be able to support two 30-minute lunch servings per day (315 students each) due to the size of the central commons area, which is also being designated as the cafeteria. In order to coordinate two lunch servings for three grade levels, students will be assigned lunch by subject rather than grade. This means students will attend lunch based on which class period meets during the lunch block. The two lunch servings will occur during the first 30 minutes of the period and the last 30 minutes of the period in order to provide an uninterrupted lesson for all students. This is an improvement over the current lunch program as students who have second lunch under the existing model lose valuable instructional time since they must leave class in the middle of the period and return to finish their lesson after lunch.

The new or renovated Fuller Middle School should have a full kitchen as well as several serving stations to provide a variety of meal options for students.

The cafeteria should provide plenty of natural light as well as access to an outdoor space. Since the cafeteria will be used throughout the day as a common area, the space should easily transform from dining hall to meeting space. It should have breakout areas for groups to collaborate, plenty of tables, charging stations for devices and full internet capabilities.

Finally, the cafeteria should be designed with noise-reducing features due to its large size and anticipated use.

Technology Instruction Policies and Program Requirements

Current:

The mission of the Middle School Technology Education Program for the Framingham Public Schools is to provide opportunities for interdisciplinary learning experiences where students can apply and reinforce math, science, computer literacy, and other specialized skills through the use of technology-based applications. In grades six through eight, students pursue engineering questions and technological solutions that emphasize research and problem solving. Students develop skills in Engineering Design by learning to conceptualize a problem, design, construct, and test prototypes, making modifications as necessary. Through these engineering challenges, students are given the unique opportunity to collaboratively apply numerous academic concepts through practical hands-on applications.

Fuller Middle School is 1:1 with its technology. Students start and end their day in homeroom where they pick up and drop off their assigned Chromebooks. The school's infrastructure is sound, with students and staff having internet access throughout the building.

Fuller Middle School's library is regularly used as the location for larger group meetings, workshops and presentations. It is also frequently used for community meetings in the evening. When these events take place during the school day, the library is closed, reducing students' access to its resources. While the library has some computer stations, it primarily serves as a traditional library. The school's librarian has made programmatic improvements to increase the library's inventory, circulation and traffic, but he is limited by these current constraints.

The Technology Education classroom is significantly lacking in the proper tools for learning in the 21st Century. The teacher does not use the current set of computers because they are slow, inefficient and lack the proper software. While the Technology Education teacher does have a 3-D printer, the Technology Education teacher does not utilize this regularly due to her lack of other adequate equipment.

The classrooms at Fuller Middle School are not equipped with Smartboards or other technology. At best, teachers use portable projectors and document cameras to teach their lessons.

Proposed:

The Framingham Public Schools is in the process of revising its Technology Education curriculum so it aligns with the 2016 Massachusetts Science and Technology Education Frameworks. As part of a STEAM program, Technology Education at Fuller Middle School will incorporate project-based learning through science, technology, engineering, arts and mathematics. The goal of Technology Education is to spread technological literacy by providing a variety of hands-on activities using current technology. Technology Education emphasizes

both design and problem-solving skills while raising students' awareness of career options in the technical fields.

In order to prepare students for the technological "unknowns" of our future society, we must equip our students not only with technical skills but with the ability to adapt in this rapidly-changing world. Fuller Middle School's educational program continues to expand students' opportunities to utilize technology, and its educators recognize that placing a device in students' hands is not enough to reach our goals. By increasing instruction around digital literacy, computer programming, technology education and communication technology, students will become more comfortable exploring new technological advances.

Since Fuller Middle School is transitioning to a STEAM model, all spaces must be equipped with internet so students can access their learning in any corner of the building. Daily, students are encouraged to be resourceful in their problem solving and technology plays a key role in this process. At the center of project-based learning in a STEAM setting is the engineering design model where students must identify and research a problem, brainstorm possible solutions, select a solution and develop a prototype, test the solution and make improvements, and ultimately communicate findings. This requires not only a technological infrastructure and a MakerSpace for students to build their models, but also an outlet for disseminating and presenting results to a larger audience. The commons/cafetorium should be equipped with high-quality sound and lighting equipment to provide such a venue. Additionally, while the square footage for the MakerSpace and Fabrication Lab areas falls below the MSBA guidelines, this reduced figure only meets the District's needs provided the cohort commons are included in the program. The cohort commons are intended to accommodate both Media Center and Vocations and Technology functions. Per the education plan, the cohort commons will have computer stations and large work surfaces to support both "hands-on" projects and technology collaboration. In an effort to coordinate with MSBA guidelines, the PDP space summary included a reduction in the Media Center category of 2,103 nsf along with this 2,250 nsf reduction in Vocations and Technology, for a total of 4,353 nsf below MSBA guidelines. In the attached revised space summary, the district proposes that the size of the 3 cohort commons be reduced from 1,500 sf to 1,450 sf for an aggregate 4,350 nsf, just below the aggregate MSBA guidelines.

While the entire school should be considered a "media center," Fuller Middle School must still dedicate a space for a true library to nurture a love of reading, provide a variety of digital resources, and facilitate both online and traditional research. This Library/Media Center should divide its space between shelves of books, computer stations and tables. Ideally, this Library/Media Center will be adjacent to a larger common area to expand the space available for groups to work collaboratively. Please reference the district's response to the Vocations and Technology comment in the paragraph above. The cohort commons has been moved to the Media Center Category and reduced to 1,450 nsf to comply with aggregate MSBA guidelines for Media Center and Vocations and Technology.

To support 21st Century instruction, classrooms should be equipped with state-of-the-art technology for presenting information. Interactive boards or LCD screens that provide connectivity to a computer or laptop are essential to allow teachers to present the latest digital images, videos or graphical displays to their students. All science laboratories should also be

equipped with wireless internet so students can record data, create accurate graphs, view videos, share information and conduct research in real time.

As described above, the FabLab and Technology Education classrooms require a classroom set of computers with the latest software for engineering, programming, video production and graphic design.

Art, Music and Theater Programs

Current:

The Framingham Public Schools is proud of its Fine and Performing Arts program, including its award winning Band and Drama programs. Fuller Middle School is no exception. Students of all ages are exposed to visual arts, music, and theater in a rich, inclusive, and culturally proficient program at all grade levels. A primary goal of the district's middle school Fine and Performing Arts program is to spark a passion for the arts in all of our students so they pursue not only the academic offerings but also the extracurricular programs at Framingham High School, where our students perform competitively each year and often earn national recognition.

The Arts teachers are incredibly special to our instructional program since they each impact child in the school. By serving as the sole providers of their particular content area within the school, they are tasked with instilling an enthusiasm and appreciation for the arts to over 500 students. This requires a well-furnished, inviting and spacious teaching environment.

Art:
In the Fine Art classes, all learning is project-based and student-centered. Students build their technical and observational skills, deepen their understanding of artistic styles, and learn that every person is an artist. They increase their confidence through creativity, curiosity and self-reflection. Throughout the program, students develop a deeper understanding of the Elements of Art and the Principles of Design. Students are not graded on artistic ability, but rather on effort and craftsmanship. Students create projects to demonstrate their understanding of foreground/background, silhouettes, perspective, printmaking, and mandalas. Students work both individually and collaboratively as they develop skill and confidence.

Music/Chorus/Band:
In Music, Chorus and Band classes, students learn about music theory and history while developing their skills as a musician and a performer. Above all else, students learn about themselves and their individual responsibility as a member of a team. Students are taught a range of musical concepts including rhythm, tonality, expression, composition, musical form, improvisation, and music's impact on culture around the world.

Theater:
The Drama curriculum increases language development, analytical skills, social skills, collaboration and team building fluency, articulation, self-confidence and problem solving. Students develop their voice and ways of expressing their voice to achieve a goal. Working cooperatively, students recognize their contributions to a greater community both within their classroom and globally. The primary objective of the middle school Drama program is to teach students basic techniques through guided, creative, play so they can begin to feel more confident using their voice to express ideas on stage and with practical applications in life as

they move on to high school. Students are introduced to a wide variety of concepts including stage basics, theater etiquette, the evolution of storytelling, non-verbal communication, choral poetry, focus and concentration, improvisation and perspective.

The Arts classrooms are not integrated with the rest of the school. They are virtually hidden and segregated from the rest of the instruction that takes place in the school. The rooms lack the appropriate resources to teach the curriculum beyond the basics. For example, the Fine Arts classroom lacks a kiln, even though another middle school has one.

The current Fuller Middle School has a dedicated auditorium that is used regularly for school plays and concerts, school-wide assemblies, and community forums and events. While the auditorium is out-of-date, it is a space that has come to be depended upon by both the school itself and the greater Framingham community.

Proposed:

Fuller Middle School is ready to embrace its identity as a true STEAM school by incorporating the arts into its project-based, student-centered learning. Whether through the study of instrument design, building of sets, the mathematics behind music, or the impact of sound waves on music, the arts will be a focal point of the Fuller Middle School instructional program. We wholeheartedly believe adequate space should be included in the design of the new facility to achieve this goal to its fullest potential. In any building design, it will be imperative that students are provided multiple venues to display and exhibit their art and academic work.

Fuller Middle School will serve its students best with the following spaces, which should be centrally located near the commons/cafetorium for maximum visibility:

- One large Art classroom with large workspaces, plenty of storage, and a kiln to align with another middle school
- One Band classroom with an additional small practice room for individual or small-group rehearsal
- One Chorus classroom with an additional small practice room for individual or small-group rehearsal
- One Theater classroom for Drama instruction and after-school play rehearsals.

In considering the inclusion of a dedicated auditorium in the new facility, we are reviewing options that will allow us to continue to provide the same opportunities and access so the school and district can support the performing arts programs at Fuller Middle School as well as the needs of the greater community.

Health and Physical Education Programs

Current:

The Framingham Public Schools recognizes the importance of providing a high-quality and comprehensive Health and Physical Education curriculum to all students. The district's Physical Education program is carefully crafted to be an enjoyable, productive, and beneficial experience for students of all skill levels. Teachers establish an environment that is safe, welcoming, and energetic so students are able to practice important life skills including teamwork, cooperation, problem solving, and process orientation. The goal is to help all students identify activities they enjoy so they will lead a healthy and active lifestyle. The Health curriculum promotes wellness, positive attitudes, communication skills, healthy behaviors, and decision-making skills. Building off the curriculum from earlier grades, students learn how good health can impact all areas of growth, development and lifestyle. Our middle school program meets or exceeds all National Health Education Standards including the Massachusetts Curriculum Frameworks, with the goal of empowering students to be critical thinkers when it comes to decisions regarding their personal behavior.

Fuller Middle School provides outdoor recreational space in the area surrounding the building. This includes a large football/soccer field, a small lacrosse field and an adult-sized softball field. These fields are used for instructional purposes during Physical Education classes as well as recreational areas during school recess. The fields are used by the Framingham community for athletic practices and sporting events throughout the warmer seasons.

Proposed:

There are no proposed changes to the Health and Physical Education program at Fuller Middle School.

The Health and Physical Education program at Fuller Middle School requires:

- a spacious and welcoming Health classroom where students can move around, engage in dialogue with one another, explore topics and interact with physical models;
- a full-sized gymnasium with adequate storage so students can regularly engage in cooperative, physical activities
- Two separate locker rooms (Boys/Girls), each with enough space to secure the belongings of approximately 40 students at any given time
- a gender-neutral changing room accessible to anyone, with a shower and space to secure the belongings of approximately 5 individuals at any given time
- Two small offices located outside the gymnasium for the Physical Education teachers where they can plan lessons, store additional equipment and meet with students

Since the athletic fields and green space are used not only by the students during the school day, but also by the Framingham community as a recreational outlet, it is vital to the school and

district that the outdoor facilities are not compromised by a new school facility. Therefore, the educational program supports the preservation of all athletic fields and green space whenever possible. For any field or green space that is impacted by the construction of the new Fuller Middle School, the educational program supports the relocation of such space to another area of the school property upon completion of the project.

Special Education Programs

Current:

Framingham Public Schools provides a broad array of services for children and youth identified with disabilities from the ages of three through twenty-two. State and federal special education laws and regulations, namely The Individuals with Disabilities Education Act (IDEA), govern the referral, evaluation and placement procedures. Framingham Public Schools is committed to the goal of providing an appropriate education for students with needs in the least restrictive environment.

- Resource Room/In-Class Support
- Partial Inclusion Opportunities
- Occupational Therapy
- Speech and Language Therapy
- Physical Therapy
- Adaptive Physical Education
- BCBA/ABA Services
- Teacher of the Visually Impaired
- Orientation and Mobility

The inclusion classroom consists of a certified special educator who rotates through the student's schedule in order to ensure that the student on an Individualized Educational Program (IEP) understands the curriculum and is meeting his/her responsibilities. Individual and small group assistance is provided within the standard curriculum classroom. In addition, the student has a daily support class with their special educator on their team. The special educator provides consultation to standard curriculum teachers regarding student's learning style and educational needs. The special educator and teacher assistant ensure that accommodations are being implemented in the standard curriculum classroom.

In addition to our inclusion model, Fuller Middle School houses 2 special education substantially separate programs:

- This program serves students who have significant intellectual and learning challenges. Some students in the program have significant weaknesses in the areas of social skills activities of daily living. The program focuses on functional life skills and knowledge about community, in order to function as independently as possible. Other students in the program have excellent social skills and benefit from a more traditional academic curriculum, with the academic curriculum provided in a slower rate. This program has the capacity to work with both types of students, as we offer both a functional life skills curriculum and a curriculum, which mirrors the standard curriculum. Students are grouped into multi-grade classes according to ability levels. There is a three-year curriculum sequence. Students receive academic instruction in language arts, reading, math, science, and social studies. Students also take an academic support class for review and reinforcement of academic

content. Students receive all academic instruction from certified special educators. Students take different subjects with different special education teachers, so they have the middle school experience of moving from class to class. Students who are in the functional life skills group participate in a vocational program. Performing various jobs around the building (e.g., delivering newspapers, emptying recycling bins) helps them to develop greater independence and provides opportunity for hands on, practical learning. Students in this program run a café that is open on selected Fridays throughout the school year.

- : The program serves students on the Autism Spectrum who require more social-pragmatic, academic, and behavioral support. The programs provide intensive behavioral training relying upon ABA principles and total communication techniques in order to develop social skills and academic readiness skills. The program blends social/developmental as well as behavioral approaches whenever possible to address the educational challenges faced by this population of students. In addition to the special education teacher and teacher assistant, there is a teacher aide in the classroom.

The program for students with intellectual impairments requires:

- 4 classrooms (12 students maximum in each classroom)
- Multigrade groupings (grades 6-8)
- Functional/life skills component with access to a garden/courtyard and student kitchen area

The program for students with Autism requires:

- 1 classroom (12 students maximum)
- Multigrade groupings (grades 6-8)
- Quiet spaces in order to provide discrete trial teaching methodologies

Bilingual special education services are provided to students at Fuller Middle School who need both special education services and instructional support for English Learners. Students have access to related services such as speech-language services. The bilingual special educator is fluent in Spanish or Portuguese and can provide native language support to students whose first language is Spanish or Portuguese. The bilingual special educator teaches special education classes in core curriculum subjects and provides consultation to other teachers regarding the student's educational needs. Bilingual speech and language therapists are available to provide native language support to students whose first language is Spanish or Portuguese.

<u>Proposed:</u>

In addition to our current needs, the new facility should provide room for an additional Autism classroom based on enrollment at the elementary schools, resulting in 2 classrooms for the Autism program.

Since the proposed plan for the new or renovated Fuller Middle School fully integrates our special education programs within the greater school community, it will be important to provide the necessary office and instructional space within each neighborhood to support these needs. Specialists, including our two Speech and Language Pathologists and Literacy Specialist, will

each require a small classroom equivalent in size to a conference room in order to work with up to 8 students at a time. Each special educator shall require a desk with sufficient storage to secure required documents (including Individualized Educational Programs). These desks should be located in teacher planning rooms (pairs of teacher desks within small offices) so teachers can conduct meetings or make necessary phone calls while ensuring student confidentiality. Inclusion teachers, while primarily serving as co-teachers, will need access to a breakout space large enough to work with a group of up to 12 students at any given time.

Regarding the configuration of the special education classrooms, the spaces should be the same size as the standard classrooms, especially because some of the students may have physical limitations and be in wheelchairs or have other equipment needs. The furniture should be moveable to provide flexible classroom space for both of the substantially separate programs. Additionally, each room should be furnished with a variety of seating, such as sensory cushion seats and standing desks.

Adaptive Physical Education in all Framingham schools occurs in the same space as Physical Education classes. Framingham has one Adaptive PE teacher for the district who provides the adaptive needs in the classroom for the students and works closely with the PE teachers, guiding them on how to adapt their lessons and activities so that all students can access them in some way.

The gymnasium has been sized at 6,500 sf to allow safe run-off areas and space for adaptive PE teachers on the sidelines. The project is targeting the LEED credit for advanced acoustic performance, which will meet sound transmission class (STC) requirements of ANSI S12.60–2010 Part 1.

Framingham currently has a contract with the Learning Center for the Deaf to assist with appropriate equipment, (hearing aids and FM systems) and other acoustical accommodations for the classrooms and schools. It is currently anticipated that assisted listening technology will be hardwired into the sound system of the auditorium, Gymnasium, and Cafeteria, and portable FM systems will be available for classrooms as needed. Additionally, it is anticipated that some sound assist amplification will be provided in each classroom. This approach will be reviewed and confirmed in Design Development.

Since some of the students require lifting for toileting, a bathroom outfitted with a Hoyer lift to assist in the safety of the staff and students would be ideal.

The substantially separate classrooms have multiple grade levels in each group, therefore it is essential that the classrooms be centralized so that they have equitable access to the 6th, 7th and 8th grade teams.

Additional considerations:

- Acoustics will be important for hearing impaired students
- Lighting and reduction of glare from windows will help students with vision impairments
- Any outdoor learning space will need to be handicap accessible
- Classrooms should be flexible (collapsible walls) so they can be reconfigured into smaller learning spaces to meet the instructional needs of the students

Vocational Education programs

Current:

Fuller Middle School staff understand that, although their students are as young as 11 years old, the conversation about college and career begins now. Educators have regular conversations with students about college options, including an annual College Door contest, in which homerooms decorate their doors with a college banners. During the month of October, discussions take place during WIN blocks where students have opportunities to explore colleges and careers, learn about financing for college, and academic goals for college and career readiness. Furthermore, the entrance to every classroom displays a sign with the teacher's name and alma mater and every Friday, staff wear gear from their alma mater. In the spring, 8th grade students visit Framingham State University to tour the school and learn a little about college life. By raising students' awareness of college options, we are opening their eyes to the possibilities and motivating them to achieve academic success.

Proposed:

Fuller Middle School intends to continue its current vocational education programs while expanding opportunities for students to visit colleges, shadow professionals on the job, and establish long-term goals.

As Fuller Middle School expands its STEAM program, this increases the potential for discussions about students' interests and career possibilities. The very nature of inquiry- and project-based learning lends itself to identifying areas of passion for individual students and can provide teachers with the necessary information to open students' eyes to possible vocations.

Transportation Policies

Students in kindergarten through 6th grade who currently live more than two miles from their assigned school will be provided transportation at no charge by the Framingham Public Schools. Students are considered ineligible for bus transportation if they are in kindergarten through 6th grade and live less than 2 miles from their assigned school. Additionally, all students in Grades 7 through 12 are considered ineligible riders. The Framingham Public Schools may offer ineligible students the ability to purchase a seat, if available, on a District bus, for a fee.

Functional and Spatial Relationships and Key Adjacencies

Current:

The current facility's entrance leads into a large hallway, but visitors must turn left and head down a corridor to reach the main office. The main office itself is open and full of positive activity, but it is outdated and lacks natural lighting. Here, one will find the offices of the Principal and Vice Principal, as well as guidance and support staff. There are also two conference rooms. The smaller of these two rooms is connected to the Principal's office.

The library is next to the main office, with easy access for visitors. This is significant since the library is regularly used in the evenings as a community meeting space.

The school's cafeteria and gymnasium are located in remote corners of the building, out of sight of anyone not heading towards these spaces.

For the most part, classrooms are contained in traditional hallway patterns, but it should be noted that Technology Education classes are taught out of a standard classroom.

The MakerSpace is currently housed in the former wood shop classroom. The space contains mostly woodworking equipment (table saws, drill press, planers, etc) and some robotics equipment. While the MakerSpace is available to all teachers, it is primarily used by the Technology Education teacher.

Proposed:

The entrance to Fuller Middle School should be welcoming of students, staff, families and visitors. The principal, vice-principal and secretarial staff should be located in this area. In addition, the main office area should include both large and small conference rooms for meetings, since the conference rooms in the existing building are in constant use.

Each grade level will have its own learning community, designated by a "neighborhood" of the building. Each wing will be composed of classrooms, science classrooms, special education classrooms, ESL classrooms, teacher planning rooms, breakout rooms, and a cohort common. Teachers work in cross-discipline teams and will need to the time and space to collaborate with each other and co-teach lessons in varied learning environments. In addition, each wing will have a "satellite" administrative suite consisting of four offices: two for support staff, one for a department head and one for an instructional coach. This suite will also provide access to a waiting area with storage closet, and a small conference space.

Across the district, we are seeing a significant rise in the social and emotional needs of students. Children require access to support staff with whom they feel comfortable and have developed a relationship. By moving guidance counselors and other support staff into "satellite" administrative suites closer to classrooms, support staff will be more visible to the students,

increasing their familiarity with these adults. By establishing stronger connections and increasing opportunities for staff to get to know students, staff can be proactive in addressing individual needs. This also heightens the level of accountability of students and supports them in building their confidence and self-advocacy skills. Additionally, out-of-class time will be reduced by the closer proximity of the offices, which will ensure instructional time is preserved as much as possible.

Essential to the design of the new Fuller Middle School is flexibility in the use of space. Classrooms with movable walls; breakout spaces and common areas of various sizes; a cafeteria that serves as a learning, demonstration and collaboration center all day long; reliable internet access throughout the building; and creative spaces for hands-on and interactive learning (MakerSpace, FabLab, Arts rooms) are critical components to our STEAM school.

Central to this plan is a community gathering space where works in progress can be displayed, students can present their projects, and groups of students can be seen learning and exploring together. The cafetorium will serve this purpose, ensuring productive use of this large space throughout the day. The Library/Media Center should be adjacent, with a large opening into the cafetorium to expand the learning space for this center. Grade-level neighborhoods should surround this central common area, making it the heart and hub of all teaching and learning.

Security and Visual Access Requirements

Current:

The exterior doors of Fuller Middle School are locked while school is in session. Staff members use an electronic pass to access the building. Visitors must buzz the main office to request entrance to the building. A sign is posted telling visitors to report to the main office, but since there is no sight line from the main office to the entrance, it is difficult to monitor such traffic.

The current facility is equipped with video cameras, security alarms and a two-way communication system so staff are able to contact the main office in an emergency.

Fuller Middle School staff adhere to all safety protocols as required by the city and the district, and follow a strict emergency response plan created specifically for the existing Fuller Middle School.

Proposed:

Safety is of our utmost concern and must be a high priority consideration in the design of a new or renovated Fuller Middle School. By preventing the distractions posed by safety and security issues, students and staff will be able to focus their attention on the real purpose of Fuller Middle School: teaching and learning.

Visibility should be optimized, with as few pockets or hidden corners as possible, in order to properly supervise students and visitors at all times. While it is likely visibility will be enhanced by the use of glass windows instead of walls in some cases, all internal and external windows must be equipped with shades that can be drawn quickly in case of emergency.

The school must remain locked during the school day so an electronic access system for staff is essential, as well as a system for visitors to buzz the main office to request entrance to the building. Visibility from the entrance of the school to the main office is necessary to ensure all visitors check in with school personnel before engaging with the greater school community.

All spaces should be equipped with access to two-way communication with the main office in order to ensure security and timely communications. A state-of-the-art security system, including alarms and a surveillance cameras, should be a part of any design.

Adherence to all city and district accessibility, fire, safety and security regulations must be included in the design, and align with district emergency response plans. The Framingham Public School District will continue to work collaboratively with the Framingham Police and Fire Departments on safety and evacuation procedures to ensure the proper security measures are in place. A new Fuller Middle School emergency response plan will be created to align with the new or renovated facility.

Since Fuller Middle School is a community hub that is regularly used at night for a variety of community meetings and school-wide events, and since the building currently houses our Adult

ESL program, appropriate lighting should surround the exterior of the facility to provide a safe path from the parking lots to the school. In addition, careful consideration should be made regarding traffic patterns, entry and egress systems, and lines of sight. Ideally, the new or renovated Fuller Middle School will provide options to secure designated parts of the building while providing the general public with access to specific areas (cafetorium/commons, gymnasium, etc.) during after school and evening events.

Fuller's Guiding Design Principles and the District Strategic Plan, Revisited

The Educational Program for Fuller Middle School thoughtfully adheres to its Guiding Design Principles in concert with the District's Strategic Plan. The elements of the program that align to each principle and goal are outlined below.

1. Transdisciplinary Instruction

Through project-based, interdisciplinary learning and an active use of the MakerSpace and Fabrication Lab, students and teachers will explore academic content areas through a cross-disciplinary and collaborative model. By engaging students in challenging, real-world problems, students will demonstrate their understanding of concepts through their application of skills on projects.

2. Personalized and Collaborative Learning

Through flexible grouping and the use of breakout spaces and common areas, students will interact with adults and students in a variety of settings. By selecting individual projects that match their interests and needs, students will begin to take charge of their own learning by asking questions and engaging in the engineering design process. Staff will continue to meet regularly with their grade-level teams to review student data and identify appropriate interventions.

3. Whole Child, Whole Community

Fuller Middle School has regular, built-in instructional time to address social-emotional curriculum and school-wide expectations with all students through the What I Need (WIN) block. In the new or renovated building, students will have greater access to support staff since these adults will be housed in auxiliary suites within each grade-level neighborhood. By creating smaller neighborhoods within the school, students and staff will truly get to know each other and develop strong interpersonal relationships. This model also promotes collegiality and a sense of belonging.

4. Visible Learning

The new or renovated Fuller Middle School will embrace collaboration and the growth mindset. Through presentations, demonstrations, display of works-in-progress, academic discourse and student collaboration, students and staff will be surrounded by evidence of learning in action. By providing large windows and access to an outdoor space, learning will extend beyond the walls of the classroom and school.

5. Community and Civic Hub

The new or renovated Fuller Middle School will become the crowning jewel for South Framingham. The community depends on the current facility as a central location for meetings, adult learning, school productions and recreational activities. For this reason, the new facility will be a symbol of the city's commitment to the neighborhood and provide a welcoming hub for civic activity.

6. Adaptability

The new or renovated facility is an investment in both the future of our students as well as the greater Framingham community. This building will need to stand the test of time, which is only possible if the space is adaptable enough to meet the city's future needs. Given the rapid rate at which the world continues to evolve, the new Fuller Middle School design will meet this challenge by providing the flexibility to reallocate space based on instructional needs.

Summary: Fuller's Educational Program and Preferred Design

The new Fuller Middle School must support the Guiding Principles as outlined in this Educational Program in order to fulfill the needs of our students and community. The preferred design thoughtfully and thoroughly meets these principles as outlined below:

1. Transdisciplinary Instruction

Collaboration among content teachers and integration of subjects are supported by the preferred design. The MakerSpace, Fabrication Lab, Cohort Commons, and larger Commons (cafeteria) promote and encourage transdisciplinary learning by their very nature. They are shared spaces that invite inquiry, exploration, research and discovery. Since partitions between classrooms are removable, the merging of classes for shared experiences and project-based learning will be easily facilitated. Furthermore, the integration of the science labs within each neighborhood cohort, rather than being grouped together in a separate wing, ensures the science classes are part of this interdisciplinary model as well. While the staff of Fuller Middle School has worked collaboratively with a consultant in its transition to a STEAM school up to the present time, the Framingham Public Schools has demonstrated its commitment to transdisciplinary learning by adding to its budget for fiscal year 2019 a STEAM coach to support further development and implementation of transdisciplinary units of instruction and other project-based learning opportunities. Through this additional position, staff will be well-trained, experienced and confident in this instructional model prior to the opening of the new building.

2. Personalized and Collaborative Learning

The preferred design not only supports personalized and collaborative learning, it encourages it. The Cohort Commons, larger Commons (cafeteria), removable classroom walls, and breakout spaces invite students and teachers to expand their classroom beyond its four basic walls. By situating the Library Media Center adjacent to the larger Commons, learning spills out into the larger space, thus promoting greater collaboration. By including a Maker Space and Fabrication Lab, the new Fuller Middle School promotes project-based learning. With the support of the new STEAM coach, teachers will offer choice and voice through project-based instruction whenever appropriate. At all times, students will be expected to reflect on their progress and learning by engaging in the engineering design process.

The preferred design also makes it easier for staff to collaborate. Rather than having a desk in their own classroom as their work space, teachers will share an office with another staff member. This promotes conversation, collaboration, and a team mindset. Larger teacher workspaces will be stationed in each cohort, adjacent to the offices of the department heads and support staff, for team meetings and other collaborations. Staff will continue to meet regularly with their grade-level teams to review student data and identify appropriate interventions. All of the practices will promote a shared responsibility for all students, and for all aspects of a child's education.

3. Whole Child, Whole Community

The new Fuller Middle School will make it easier for all staff, but especially support personnel, to develop positive relationships with students. In the preferred design, support personnel have offices directly located within the auxiliary suites of each cohort neighborhood, and not in the main office at the front of the building, thus providing students and staff with greater access to these staff members. Support staff will be closer to the students on their caseload and will be able to engage with students not only when they are receiving services but during those informal moments between classes, at locker time and before homeroom. In this way, support staff will be able to get to know their students better so they can more proactively address concerns.

4. Visible Learning

The preferred design embodies the growth mindset and visible learning. All aspects of the selected model promote opportunities for students to share their learning with others--not just at the final stage of the project, but throughout the learning process. From breakout spaces to Cohort Commons, from removable classroom walls to the use of glass to promote visible learning, students will be able to share what they are doing with their peers as well as teachers. Furthermore, by providing access to outdoor spaces, learning will extend beyond the walls of the classroom and school. In this way, visible learning will also extend to the greater Framingham community.

5. Community and Civic Hub

The preferred design carefully addresses the needs of the community. By including a fully-equipped auditorium and larger gymnasium, the Framingham community will be able to use this facility in the way it needs: for athletic clubs all year long, for community meetings, for concerts and other performances, and for civic engagement.

6. Adaptability

The preferred design addresses the needs of the current educational program without being risky in its layout. By including traditional features including standard classrooms, fully-functioning cafeteria, upgraded technology, and state-of-the-art science laboratories, we have ensured the selected model meets current guidelines while preparing us for the future through its flexible floorplan.

Resources

For more information:

Project-Based Learning

https://www.bie.org/about/what_pbl -- Buck Institute for Education; one-page summary of project-based learning with tabs to additional information

http://www.nea.org/tools/16963.htm -- National Educators Association; Links to Research-Based Resources

https://www.edutopia.org/project-based-learning-experts -- Edutopia: Project-Based Learning: What Experts Say

http://www.ascd.org/publications/educational_leadership/sept10/vol68/num01/Seven_Essentials_for_Project-Based_Learning.aspx -- Educational Leadership (ASCD); Includes an explanation of the essential components of a project-based learning experience

STEAM

https://www.ed.gov/stem -- While focused primarily on STEM education, this site highlights the importance of improving STEM education in our schools

https://www.edutopia.org/blog/pbl-and-steam-natural-fit-andrew-miller -- This article makes the connection between STEAM and Project-Based Learning

https://www.edutopia.org/article/STEAM-resources -- Links to resources that discuss how the arts and humanities are incorporated into STEM programming

21st Century Skills

https://www.brookings.edu/blog/education-plus-development/2017/10/17/how-do-we-teach-21st-century-skills-in-classrooms/ -- Research from the Brookings Institute

https://www.edutopia.org/discussion/15-characteristics-21st-century-teacher -- Emphasizes the shift in instructional strategies to teach 21st Century skills

http://www.nea.org/assets/docs/A-Guide-to-Four-Cs.pdf -- Comprehensive report on 21st Century learning

Framingham Public Schools

Where every child can and will reach high levels of achievement.

Fuller Middle School
Educational Program
June, 2018

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Executive Summary

Fuller Middle School is in its fourth year of STEAM (Science, Technology, Engineering, Arts and Mathematics) design and implementation as part of a district-wide effort to deliver instruction through a project-based, interdisciplinary model that engages students through inquiry and emphasizes 21st Century skills. The Framingham Public Schools envisions the new or renovated Fuller Middle School, together with its educational program, as a model for both the district and the state.

This educational program hinges on six design principles:

- Transdisciplinary Instruction
- Personalized and Collaborative Learning
- Whole Child, Whole Community
- Visible Learning
- Community and Civic Hub
- Adaptability

At the heart of this program is the individual child: by providing opportunities for students to engage in inquiry, collaborate with peers, integrate learning across content areas, utilize technology effectively, and make their thinking and learning visible, students will develop and/or strengthen their growth mindset and feel ready to tackle any future challenge.

An important aspect of STEAM instruction is the ability for students to explore challenges and build physical representations. A Fabrication Laboratory and MakerSpace are fundamental components of the program. Students will use these spaces to engage in the engineering design model, where they develop and test a prototype of their idea and then make modifications as needed until they are ready to present their solution.

Collaboration will be the foundation of all progress as Fuller Middle School continues its transformation to a STEAM model. Teachers will need regular, frequent opportunities to meet with colleagues to develop interdisciplinary lessons, co-plan, review curriculum and analyze data. Students will work collaboratively with peers to perform investigations, research topics, complete projects, and present their work. Thus, ample meeting space and the flexible use of space are key elements of the new or renovated facility.

The Fuller Middle School student population includes 161 English Learners (ELs) and 49 Former English Learners (FELs, one or two years out of the English Language Development program), representing 41% of the total school population. More than 50% of the school's students speak a language other than English at home. The current Fuller Middle School has 9 dedicated classrooms for ELs, and will need at least this many classrooms in the future as the EL population continues to rise.

Fuller Middle School supports students with disabilities through inclusion services as well as two substantially separate programs: Intellectual Impairments and Autism Spectrum Disorders. There are 126 students with active Individualized Education Programs (IEPs), representing 24% of the student population. Of this total, 44 students are provided instruction in the substantially

separate programs. The current Fuller Middle School has 5 dedicated classrooms for the substantially separate programs; however, given the growing Autism program at the elementary level, it is expected that an additional classroom will be necessary in the next couple of years. Inclusion services are provided through standard curriculum classrooms that are assigned a special education co-teacher whose primary role is to deliver the necessary accommodations and instructional support.

To create smaller learning communities within the large Fuller Middle School, the new facility should consist of three neighborhoods (cohorts), one for each grade level. All grade-specific classes (ELA, Math, Social Studies and Science) will be taught within these areas. In addition, each neighborhood shall include designated English as a Second Language and Special Education classrooms to fully integrate all students within the whole school community. To provide easy access to support services and school leaders, small auxiliary administrative suites should be located within each neighborhood. By moving guidance counselors and other support staff into these "satellite" administrative suites, support staff will be closer to students, thus ensuring increased access. This will also allow support staff to better know their students so they can more proactively address concerns.

Welcome to the Framingham Public Schools

The mission of the Framingham Public Schools, a system that understands and values our diversity, is to educate each student to learn and live productively as a critically-thinking, responsible citizen in a multicultural, democratic society by providing academically challenging instructional programs taught by a highly-qualified and diverse staff and supported by comprehensive services in partnership with our entire community.

We envision a school district in which every child is engaged as an active learner in high-quality educational experiences and is supported, at their level, to ensure growth over time. We believe in an educational model that is steeped in meeting the individual needs of every student in our care through the personalization of learning as an ongoing effort to address achievement and opportunity gaps. We believe that with effective effort, time, and practice, all of our students can and will reach high levels of achievement.

Our diversity is our strength. Our city is enriched and strengthened by its diverse cultural heritage, multinational population, and welcoming attitude toward newcomers. Within our classrooms and neighborhoods, and on our stages and athletic fields, we want learning to be relevant and connected to developing our students into value-centered citizens who are able to navigate a complex and inequitable world. We aim to address these inequities--including racism, socio-economic status and language barriers--to create an environment in which every child can and will succeed.

The Framingham Public Schools adapts instruction to meet the learning and developmental needs of all students through appropriately challenging, high quality, standards-based instruction connected to practical applications. We are an inclusive learning community in which students feel safe taking academic risks while mindfully respecting diversity of opinions. We foster supportive and collaborative partnerships between families, the community and the school district so that every child reaches a high level of achievement. The foundation of our work is collaboration, mutual respect, and high expectations, where all educators are reflective of their practice and feel supported as they continually adjust instruction to improve student performance.

The District's Three-Year Strategic Plan focuses on providing all students with high-quality instruction whose foundation is a standards-based curriculum. Goals in the strategic plan include:

Goal 1. Developing a shared understanding of high quality instruction, including content and instructional strategies, by all staff and executed in all classrooms and instructional settings.

Theory of Action: If we develop a common understanding of high quality instruction (HQI) including standards-based content knowledge in ELA and Math, pedagogy and high leverage strategies among all staff, then students will have equitable access to rigorous and engaging standards-based instruction to increase student achievement (
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Creating a system and culture of consistent and accurate assessment, data analysis, reflection and feedback.

Theory of Action: If we create a system and culture of data-based assessment including analysis, reflection and feedback, then educators will be able to effectively target the individual needs of students and purposefully adjust their instructional practices accordingly.

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Promoting academic achievement and social and emotional growth for all students.

Theory of Action: If we promote academic achievement and social and emotional growth for all students, then we are underscoring and making real the central mission of the Framingham Public Schools.

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Delivering targeted supports and interventions based on the analysis of data and identification of student-specific needs.

Theory of Action: If we deliver targeted supports and interventions using a data-driven approach, then students will receive differentiated instruction aligned with individual needs to optimize their success.

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Supporting a culture of rigor and excellence for all students in all settings.

Theory of Action: If there is an emphasis on rigor and excellence in all aspects of our educational system, then we are establishing appropriately challenging expectations for all students. This promotes the growth mindset by communicating our belief that all students can and will reach high levels of achievement.

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Each of these goals has played a pivotal role in the decision-making process for the plan of the new Fuller Middle School. By focusing on standards-based curriculum, student-centered instruction, teacher collaboration, social and emotional well-being, and the growth mindset, we have ensured the educational plan and new facility are aligned with the district's high-impact goals for student achievement.

STEAM Education at Fuller Middle School

The Framingham Public Schools is in its fourth year of implementation of its STEAM (Science, Technology, Engineering, Arts and Mathematics) program. In 2014, the King Elementary School opened its doors as a STEAM school, welcoming four classrooms of kindergarten students. Each year, the school has continued to grow, welcoming a new kindergarten group. The original cohort, currently in 3rd grade, has been immersed in project-based learning, explorations and exhibitions. When the King Elementary School students graduate from elementary school at the end of 5th grade, they will enter Fuller Middle School. In anticipation of this incoming class, Fuller Middle School is preparing itself to provide a comprehensive STEAM education to students.

Fuller Middle School, in its fourth year of STEAM design and implementation, is in the process of transforming its instructional delivery through a STEAM model that engages students through inquiry and emphasizes 21st Century skills. The school leadership is building student and staff capacity as it shifts to a project-based learning environment. Having recently reviewed its progress and recalibrated its work, Fuller Middle School has entered the first year of its new four-year plan, establishing clear and measurable goals to monitor growth of this model.

This innovative educational program, envisioned by the Fuller Middle School community along with school and district leadership, emphasizes project-based, student-centered learning; collaboration (student-student, student-staff, staff-staff); flexible groupings and space configurations; and strategic use of technology. To this end, the new Fuller Middle School building must embrace inventive and creative use of space to achieve these goals.

STEAM at Fuller Middle School is an approach to project-based learning that blurs subject area boundaries, engages students in learning by doing, encourages students to ask and investigate meaningful questions, and places students at the center of their own learning.

STEAM at Fuller Middle School provides a vehicle for fully engaging ALL students, connecting to real-world contexts, and developing a strong culture of accomplishment and accountability.

Fuller Middle School students practice and demonstrate the 21st century skills of critical thinking, communication, collaboration, creativity and citizenship through dynamic student projects, presentations of learning and mindful reflection.

Our Visioning Process

In June 2016, approximately 50 teachers, administrators, parents, school committee members, school building committee members, municipal representatives, and community members came together as an Educational Visioning Team. Together, they collaborated during three days of intense workshops facilitated by Frank Locker to create a prekindergarten through 8th grade educational vision. The following "Places for Learning" have been excerpted from the Executive Summary of the District-Wide PreK-8 Educational Visioning Report prepared by Frank Locker Educational Planning in June 2016.

PLACES FOR LEARNING

Several exemplars were highly favored, selected by three or four of the six Table Teams as most appropriate.

Most of the schools cited as most appropriate shared these characteristics:

- Learning spaces arranged as Small Learning Communities
- Classrooms are components of "suites of spaces," supported by other spaces immediately adjacent
- Circulation to be used for learning
- Classrooms are to be flexible, interconnected, and supported by auxiliary spaces including Collaboration/Breakout/Commons Spaces
- Interdisciplinary possibilities
- Open presentation areas
- Variety of furnishings, offering students and teachers more choices in supporting learning
- Possibility of student groups working in multiple places under the guidance of the teacher
- Teacher collaboration supported by the facilities, through connections between the rooms and strategic placement of related functions
- Teacher Planning Centers to support teacher collaboration and sense of community

The following Guiding Principles, District Planning Goals and Effective Learning Modalities have been excerpted from Executive Summary of the District-Wide PreK-8 Educational Visioning Report prepared by Frank Locker Educational Planning in June 2016.

GUIDING PRINCIPLES

1. Extend Innovative 21st Century Practices

This future-oriented Educational Vision incorporates a number of innovative 21st century educational practices such as STEM programs already in operation in classrooms in Framingham Public Schools. Extend those practices.

2. Achieve Equity and Equal Opportunities

Achieve equity and equal opportunities for all students, no matter where they reside in town or what their socioeconomic background is Create a common understanding of this Educational Vision among administrators, faculty, parents, and students to continue shifting the educational model from one that is fairly traditional to one that is more transformed.

3. Prepare Students for Success

Prepare students for success in the 21st century, an emerging world of global competition, uncertain employment prospects, infinite access to information, and rapid change in technology.

4. Teach 21st Century Skills

Teach 21st century skills at the same time as traditional content.

5. Build Relationships with Students, Families and Communities

Build relationships with students, families, and communities through school structure and programs

6. Foster Independent Lifelong Learning

Aspire beyond the Common Core and beyond the Massachusetts Department of Elementary and Secondary Education guidelines to do what is best for student learning, and to instill a lifelong sense of wonder and purpose. Create independent, lifelong learners.

7. Provide Professional Development

Establish a program of staff Professional Development to support the educational deliveries outlined here.

In October 2017, the Framingham Public Schools Educational Working Group (EWG), a group of approximately 20 Framingham Public Schools administrative leaders, teachers, administrators, students, parents, and community partners, participated in a two-day Educational Visioning Workshop facilitated by New Vista Design and Jonathan Levi Architects. The workshop was a collaborative session aimed at informing the Fuller Middle School design process. Participants were led through a step-by-step visioning process to capture their best thinking about FPS's current and future educational goals and priorities, and connect them to previous visioning work done by the district, as well as to best practices and possibilities in innovative school facility design.

On October 20, 2017, the Framingham Public Schools EWG participated in Educational Visioning Workshop One and explored the following topics:

• Priority Goals for the renovated/new facility
• 21st Century and Future Ready Teaching and Learning Practices that are key to the district's forward thinking educational vision
• Future Ready Learning Goals that distill the group's best thinking with regard to Framingham Public Schools and Fuller Middle School's current and future educational programming and priorities
• Strengths, Challenges, Opportunities, and Goals (SCOG Analysis) associated with Framingham Public Schools and Fuller Middle School's current academic programs as well as the vision for its new facility

On October 26, 2017, the Framingham Public Schools EWG participated in Educational Visioning Workshop Two and explored the following topics:

• Design Patterns that innovative schools throughout the country have put into practice in order to make their forward-thinking learning goals come alive on the level of facility design
• Guiding Principles 1.0 for design of the new facility

Priority Goals

The following list of priority goals for the design of the renovated and/or new Fuller Middle School was recorded during the participant introduction section of the Educational Working Group's (EWG) Workshop One that took place on October 20, 2017. The EWG is a group of approximately 20 participants that includes Framingham Public Schools leadership, as well as Fuller Middle School administrators, teachers, and community partners.

- Understand the long-range vision of district and how it aligns with that of FMS
- Define what the school's vision means at each level - beyond jargon
- Ensure that Fuller Middle School connects to the Elementary and High School
- This is a K-12 initiative
- Create a central hub for the school
- Explore different ways to think about the new school's media center
- A school that integrates media and technology in a comprehensive way
- A school that integrates across disciplines (now we are compartmentalized and siloed)
- A schedule and building that allows for STEAM to happen
- Promote flexibility, connectivity, and sustainability
- Be mindful of and adapt to future change
- Facilitate collaboration within the district and the facility
- Create strong community connections: they are very important, especially for FMS
- A building that is environmentally and aesthetically friendly, appealing, inviting, warm
- Allows creativity to blossom
- Relates well with young learners
- A building that serves as a "second home" for all stakeholders
- A sense of ownership and buy-in from everyone
- Beyond ownership of "your" space, everyone takes ownership of the facility as a whole
- A building and program the honors diversity and equity
- Students
- Staff
- Resources and materials
- Make sure the cafeteria and food service is a priority - second home piece
- Over 50% of students are free and reduced lunch
- This needs to be their second home
- We need spaces that help us work with kids that are lost and traumatized, and that have social emotional and special needs
- Create a school that offers students the possibility of developing a range of skills
- Support alternative ways of motivating and teaching students
- Multiple means of teaching and learning
- Integration of disciplines
- Not just a place that houses students; the building itself becomes a learning tool for students
- Student learning is at the center
- A building that is multicultural in its design and openness
- Families that are not American-cultured can feel connection
- Robust areas for staff collaboration
- Interdisciplinary co-planning
- Promote inter/trans disciplinary teaching and learning
- Inclusive
- From SPED perspective - ensure accessibility for everyone

- A building that supports differentiated instruction
- Beyond academic support - community connections and services
- Social services – counseling
- Building designed as environment friendly and learning instrument
- Outdoor classrooms
- Extended day / adult education / ESL
- Community ED
- Fuller Middle School is central location
- Idea of open space and connection to nature
- Courtyard, open space
- Pond - water sampling
- Outdoor space as part of learning enrichment
- Adaptable to adult education
- Open from 7 - 11
- Board of Health is now in building but we lost the vision center
- A really important element - kids remain in school
- Immunizations
- Have a lot of newcomers - don't know how to access
- Consider the possibility of a childcare center
- Determine what we may want to fund beyond the MSBA template
- See this as a way of reaching our new identity
- We are all a product of the Horace Mann model and it's hard to see beyond it
- Explore what kind of environment we want
- Provide some space in the school that is equipped to engage a global classroom lesson
- Also, something like actually seeing surgery happening real time
- Higher ED is struggling with bricks and mortar – the world that students will occupy is changing so rapidly
- Our current FMS is largely lecture model
- Time for us not to try same, same thing

21st Century Learning Goals

The following set of priority "21st Century Learning Goals 1.0" for Fuller Middle School students was developed by the Educational Working Group (EWG) during Workshop One. Four teams of five participants each reviewed Fuller 5 Cs Learning Goals, as well as assorted other 21st century learning goals created by various school networks around the country, then worked to create their own set of learning goals. Each team presented their learning goals to the larger group. These goals are grouped below by like goals.

Whole Child Learning

- As an Organizing Principle for all Other Learning Goals

Collaboration and Communication

- Effective Communication
- Have a Voice
- To Effect Positive Change
- Emerge from Language Isolation to Collaborative Participation
- Staff and Students
- Understand How, What and Why we Communicate

Social and Civic Competence

- Within Fuller and in the Community
- Civic and Community Engagement
- Local, Community-Based Project Learning
- Community
- Empathy, Ethics and Civic Responsibility

Creativity and Imagination

- Imaginative and Joyous Risk-Taking
- Initiative and Curiosity
- Create Joy and Ownership

Critical Thinking

- Higher Order Thinking
- Permeated with Habits of Mind
- Problem Solving
- Analyze Information
- Executive Function – Ability to Prioritize and Strategize

Love of Learning

- Content is Not as Important as the Ability to Love Learning
- Self-Motivation
- Student Driven and Owned

Multicultural Literacy

Technology Transforming the Basics

Opportunities and Goals 2.0

The following Opportunities and Goals for the design of the renovated and/or new Fuller Middle School were brainstormed by the Educational Working Group (EWG) during Workshop Two.

- Deliver Special Education services in innovative ways that are welcoming and integrative
- Don't define Special Education too much
- Flexible use of space
- Disperse support staff, including specialists, throughout the school facility
- Create smaller learning communities as "sacred spaces"
- Provide centrally located Breakout Spaces
- Create a flexible building with movable walls
- Classrooms not "owned" by teachers
- Professional collaboration spaces for teachers
- Discover what it really means to be a "STEAM" school
- Utilize the STEAM experience of King Elementary School
- Think about how to "even the playing field" for non-King students entering FMS
- Position the Media Lab as the hub of the school
- Build with the larger community in mind
- FMS project as community development project
- Think about how to best facilitate community use as well as create bigger picture connections to the community
- Make decisions holistically about what is included in the design
- Whatever we create here connects to the FPS vision
- Include what we do in the rest of the district as part of the visioning process
- See Farley building as a resource for this project for things that cannot be accommodated at FMS
- Support FMS staff in terms of professional development and training
- Support a mindset shift
- Ongoing support on how to collaborate
- New mindset to share classrooms
- Support Habits of Success, Universal Design for Learning (UdL), and cognitive skill development
- Approaches to personalized learning should be horizontally and vertically aligned

21st Century Design Patterns 1.0

The following set of priority "21st Century Design Patterns" for the design of the new Fuller Middle School was developed by the Educational Working Group (EWG) during Workshop Two. Three teams of five participants each worked to create their own set of priority Design Patterns, after which each team presented to the larger group.

Open and Welcoming Entry
- First Impression Greeting Space

Distributed Dining
- Distributed Gathering Spaces
- Satellite Cafeterias / Café Style
- Cyber Dining

Learning Commons
- With Art, Music and Health, etc.
- Flexible Learning Styles
- Quiet Spaces

Classroom as MakerSpace
- Maker and Collaboration Spaces
- Collaborative Learning Spaces Including MakerSpaces

Display and Exhibition
- Walls Built for Display of Student Work
- Entire School as Display

Outdoor Connectivity
- Outdoor Space Use

Ubiquitous Learning

Professional Teacher Spaces
- Shared with Colleagues
- Teacher Collaboration Space

Breakout Spaces
- Non-Learning Spaces
- Accessible to Classrooms

Distributed Resources
- Distributed Adults

Flexible Furniture
- Variable Seating

Universal Access and Equity

Push-In Special Education

Visible Learning
- Spaces to Show Work in Progress

Paired/Flexible Classrooms

Vertically Integrated

Fuller Middle School's Guiding Design Principles

The following set of "Guiding Design Principles" for design of the renovated and/or new Fuller Middle School was developed by the Educational Working Group (EWG) during the Educational Visioning Workshop Two. Guiding Design Principles offer a framework of educational priorities that prove invaluable in helping stakeholders and design team members to set design goals and focus their work. This first iteration of Guiding Principles may continue to develop as the design process unfolds.

1. Transdisciplinary Instruction

- Project-Based and Real-World Learning
- Mastery-Based and Applied Learning

2. Personalized and Collaborative Learning

- Addresses Varied Learning Styles
- Personalized Learning Plans
- Student Voice and Choice

3. Whole Child, Whole Community

- Educating All Aspects of a Child
- Social Emotional Learning Skills
- Pride Within Cohort and Larger School

4. Visible Learning

- Connectivity
- Indoor/Outdoor Transparency and Connections

5. Community and Civic Hub

- Civic Campus and Community Resource
- Symbolic Hub of South Framingham
- Intergenerational and Community Connections

6. Adaptability

- Planned for Evolution
- Future Ready

While most of the stakeholders around the table for the PreK-8 Educational Visioning workshops were distinct from those at the Fuller Educational Visioning sessions, there are several very clear commonalities among each group's desire for how students will learn in this district. This solidifies our belief that this Educational Program represents the voice of our community and best interests of the students in our care.

Fuller Middle School

Mission Statement

The community of Fuller Middle School is committed to the academic, social, physical, and emotional development of every student. This commitment is supported by a philosophy based on differentiation, participation, high expectations, cooperation and respect for all.

School Overview

Fuller Middle School, established in September 1994, was named in honor of Dr. Solomon Fuller, a psychiatrist, and his wife Meta Fuller, a sculptor. A pioneering African-American family, the Fullers lived on Warren Road, near the current location of the Fuller Middle School, during the early part of the twentieth century. Dr. and Mrs. Fuller were leaders in their professions and in the Framingham community during their lives. They serve as models for the students of the school named in their memory.

Every student at Fuller Middle School is part of an academic team. A team consists of a group of teachers: teachers of academic subjects as well as educators for inclusion instruction and/or English Learner (EL) instruction and support as needed. All ELs receive English as a Second Language (ESL) instruction, regardless of the program model in which they are enrolled. Programs supported at Fuller Middle School include: Sheltered English Immersion (SEI), Transitional Bilingual Education (TBE), and Students with Limited or Interrupted Formal Education (SLIFE). ESL teachers teach foundational and transitional level students across the continuum of WIDA English proficiency levels. TBE teachers teach content-specific subjects to beginner and intermediate ELs. Academic teaming and team-based homerooms allow students to be part of a small, cohesive group of students who share the same classes and teachers. Teachers have collaboration time every day in the six-day rotation in order to plan integrated learning activities, address topics related to improving teaching and learning, discuss student concerns, and meet with parents. The goal of this model is to foster collaboration and shared accountability as we solve learning challenges together.

In addition to attending classes within their team, students also participate in Unified Arts courses – Art, Music, Health, Physical Education, Design and Engineering, World Language (French or Spanish), and Drama.

Demographics

A strength of our school is the rich diversity of our students and families, with the highest population of non-native English speakers among the three middle schools in the district. Fuller Middle School houses a TBE program using Spanish or Portuguese as a mode of instruction for content-area subjects (Math, Science and Native Language) and a SLIFE program. These programs consist of 13 staff, many of whom are native speakers of Spanish and Portuguese.

There are currently 161 English Learners and 49 Former English Learners (FELs, students who are one or two years out of the ELD program) at Fuller Middle School, representing 41% of the total school population. Also of note, more than 50% of the school's students speak a language other than English at home. Fuller Middle School has 9 dedicated classrooms for English language instruction, but this number may increase at any given time depending on the number of additional English Learners who enroll during the academic year.

Fuller Middle School supports students with disabilities through inclusion services as well as two substantially separate programs: Intellectual Impairments and Autism Spectrum Disorders. There are 126 students with Individualized Education Programs (IEPs), representing 24% of the student population. Currently, 44 students are provided instruction in the substantially separate programs. The 4 classrooms for the Intellectual Impairments program and one classroom for the Autism program each require a dedicated space with distinct specifications, as outlined later in this document. Inclusion services are provided in the standard curriculum classroom by assigning a special education co-teacher to the class. Often, the special educator determines it is necessary to work with a small group of students to support their individual needs. This is best accomplished in a separate room, in close proximity to the students' classroom, so students can receive immediate and effective personalized instruction and then rejoin their class as quickly as possible.

School-wide implementation of a positive behavioral interventions and supports (PBIS) system, including Restorative Practice, is unifying our community as we embrace our cultural, social, emotional, and academic diversity both in and out of the classroom.

Our approach is to foster healthy and positive relationships among and between students and adults, combined with comprehensive social and emotional supports and targeted instructional strategies for personalized learning. This work involves professional development, parent outreach and education, increasing student support systems, and regular collaborative use of data to inform instruction across all program areas and staff. Success will be realized when all of Fuller Middle School's students develop confidence and competence, with all students meeting or exceeding expectations.

Grade and School Configuration Policies

Current:

The Framingham Public Schools is a pre-kindergarten through 12th grade district with an enrollment of 9369 students. The District includes 1 preschool, 9 elementary schools, 3 middle schools, and 1 high school with an alternative campus for students identified as benefiting from a modified school day.

Juniper Hill School (Preschool)
- Pre-kindergarten
- 291 students

Brophy Elementary School
- Grades K-5
- 470 students
- Transitional Bilingual Education Program (Spanish)

Barbieri Elementary School
- Grades K-5
- 683 students
- Two-Way Bilingual (Spanish)

Dunning Elementary School
- Grades K-5
- 473 students

Hemenway Elementary School
- Grades K-5
- 570 students

King Elementary School
- Grades K-3
- 279 students
- STEAM School
- Transitional Bilingual Education Program (Portuguese)

McCarthy Elementary School
- Grades K-5
- 563 students

Potter Road Elementary School
- Grades K-5
- 510 students

Stapleton Elementary School
- Grades K-5
- 369 students
- Emotional Disability Program

Woodrow Wilson Elementary School
- Grades K-5
- 574 students
- Transitional Bilingual Education Program (Portuguese)

Cameron Middle School
- Grades 6-8
- 540 students
- Emotional Disability Program

Fuller Middle School
- Grades 6-8
- 516 students
- Transitioning to a STEAM School
- SLIFE Program
- Transitional Bilingual Education Program (Spanish and Portuguese)

Walsh Middle School
- Grades 6-8
- 760 students
- Two-Way Bilingual (Spanish)

Framingham High School
- Grades 9-12
- 2158 students
- Alternative High School Campus: 44 students

Student assignment and grade configurations are based on several complicated factors including feeder systems, school neighborhoods, school choice, school programming (STEAM and Two-Way Bilingual), English Learner status, and special education programs. This has resulted in space and inequity issues that are at the early stages of being addressed by the district.

Proposed:

The District has spent considerable time and resources in reviewing the current and future needs of the Framingham Public Schools. Grade and school configurations are not being revised at this time. However, school programs continue to expand. For example, due to the overwhelming success of our Two-Way Bilingual (Spanish) Program at Barbieri Elementary School, the Framingham Public Schools will be welcoming its first Two-Way Bilingual (Portuguese) kindergarteners in the fall of 2018 at Potter Road Elementary School. With the growing English Learner population and the increased capacity of educators through their Sheltered English Immersion (SEI) training, ELs are more frequently being placed at their neighborhood schools. Lastly, Fuller Middle School is continuing its transition to becoming a STEAM middle school. As the students in King Elementary School's oldest class are already in third grade, they are only 3 years away from entering Fuller Middle School. These students and their families expect and deserve a continuation of the STEAM education they have experienced since kindergarten.

Class Size Policies

Current:

While contractual guidelines ensure class sizes do not exceed 25 students for grades 6 through 8, the diverse range of needs of the students at Fuller Middle School necessitate keeping class sizes as small as possible. Whenever feasible, class sizes are reduced and co-teaching is incorporated to provide instructional supports for all students, particularly our English Learners and students with disabilities. Currently, class sizes for general education and inclusion classes range between 17 and 26 students, with an average of approximately 20 students per class.

Due to student migration that occurs throughout the year, our English as a Second Language (ESL) and Transitional Bilingual Education (TBE) classes tend to be the most impacted by class size concerns as the year progresses. This can lead to splitting classes, creating new classes, and reconfiguring schedules during the year. While school and district administrators cannot predict the number and needs of students at any given grade level in a particular year, the district consistently enrolls English Learners all year long, some of whom have limited or interrupted formal education. Fuller Middle School is prepared to meet these needs through the support of an ESL Department Head, English Language Development (ELD) coach, and Students with Limited or Interrupted Formal Education (SLIFE) teacher. With continuous, year-long student enrollment as a constant factor, the staff at Fuller Middle School work hard to maintain a safe and welcome learning environment at all times. This requires multiple venues for teachers to work with small groups of students, as well as the flexibility to create additional classes as needed.

Proposed:

There are no proposed changes to class sizes.

School Scheduling Method

Current:

Fuller Middle School follows a traditional bell schedule. The school day runs from 8:08 AM to 2:25 PM and consists of 2 45-minute periods, 3 50-minute periods, 1 60-minute period and 30 minutes for lunch. In addition, there is a 25-minute What I Need (WIN) block each day for intervention and extension of learning. Since the school is 1:1 with technology, the day begins with a 5-minute homeroom where students hear morning announcements and pick up their Chromebooks, and ends with a 3-minute homeroom to return their Chromebooks. The periods rotate through a 6-day cycle so that each class meets for the same number of minutes over the course of those 6 days.

The current school bell schedule is detailed below:

Time	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
8:08 - 8:13	Homeroom					
8:15 - 9:05 50	A (8th Specials)	B(7th Specials)	C (6th Specials)	D (8th Specials)	F (7th Specials)	G 6th Specials)
9:07 - 9:57 50	B	C	D	F	G	A
9:59-10:49 50	C	D	F	G	A	B
10:50 - 11:18	WIN - Social Comp					
11:20 - 11:50	Lun E / D / D / F / F / Lun E / G / Lun E / G / Lun E / A / A / B / B / Lun E / C / Lun E / C					
11:50 - 12:20	D / Lun E / Lun E / F / G / Lun E / A / Lun E / Lun E / B / C / Lun E					
12:20 - 12:50	D / Lun E / F / Lun E / Lun E / G / A / Lun E / B / Lun E / Lun E / C					
12:50 -1:35 45	F	G	A	B	C	D
1:37-2:22 45	G	A	B	C	D	F
2:22 - 2:25	Homeroom					

Proposed:

The proposed Fuller Middle School will be able to support two 30-minute lunch servings due to the size of the commons area, which is also being designated as the cafeteria. In order to coordinate two lunch servings for three grade levels, students will be assigned lunch by subject area rather than grade. This means students will attend lunch based on which class period meets during the lunch block. The two lunch servings will occur during the first 30 minutes of the period and the last 30 minutes of the period in order to provide an uninterrupted lesson for all students. This is an improvement over the current lunch program as students who have second lunch under the existing model lose valuable instructional time since they must leave class in the middle of the period and return to finish their lesson after lunch.

While no other proposed changes are being made at this time, a new schedule may need to be developed as the school transitions to a STEAM model. This would be considered if it was determined that the current bell schedule does not provide the necessary structure to guide teaching while also maintaining flexibility to allow students appropriate access to all curricular areas, instruct through an interdisciplinary approach, and promote staff collaboration. The school schedule should provide teaching staff with the flexibility to combine classes or create extended blocks of instruction as a means of delivering interdisciplinary lessons or providing longer periods for projects.

Teaching Methodology and Structure

Current:

The Fuller Middle School faculty and staff are committed to preparing students for success beyond middle and high school, so that all students are equipped to take on the ever-changing landscape of future college and career options. Teachers follow district-approved curriculum that is aligned with state frameworks. Through data-driven decision making based on student conduct, formative assessments, attendance rates, teacher feedback and student growth rates, the staff determine the appropriate interventions for each student.

The current model at Fuller Middle School is a team model within grade levels. Each grade level consists of two general education/inclusion teams (Grade 6--Lime and Opal; Grade 7--Platinum and Tangerine; Grade 8--Blue and Green). In addition, Fuller Middle School has the Crimson Team (substantially separate) and the Gold Team (Bilingual). For the most part, each staff member is assigned within only one team, which allows educators to truly know their students. The staff for each team meet three times per six-day cycle to discuss student data including academic performance, social and emotional concerns, conduct, attendance and any other issues that may impede student learning. In addition to these grade-level team meetings, each teacher participates in departmental meetings twice per six-day cycle to review curriculum, monitor vertical alignment, develop goals, plan lessons and discuss instructional strategies.

All staff are assigned to 4 classes and a What I Need (WIN) group. On 4 days of the six-day cycle, teachers work with small groups of students during the WIN block to provide interventions and extensions, and to conference with students. On the other 2 days of the six-day cycle, teachers provide social/emotional curriculum during this block. This WIN time is critical to meeting the specific, targeted needs of individual students and to reinforce school-wide behavior expectations.

In addition to their academic courses, students rotate through a series of specials subjects intended to provide a broad enrichment and addition to the core academics. In 6th grade, students can elect to take band or string orchestra; all other students take one trimester each of chorus, drama and music. Students in grades 7 and 8 choose either band, string orchestra, drama or chorus, which meets once per cycle for the year. In addition to a performing art, students rotate through fine art, health, and technology education for approximately 6 weeks each, and physical education for two sessions of six weeks.

The Framingham Public Schools meet students' curricular needs through a comprehensive, standards-based program. At this time, some curriculum units are taught concurrently within different content areas to provide a richer and more integrated learning experience. An example of this more interdisciplinary approach is the Holocaust Unit in which students read literature, conduct research, and study the history of the Holocaust in both their English Language Arts and Social Studies classes.

English Language Arts

The ELA curriculum is fully aligned with the Massachusetts Curriculum frameworks and provides students with opportunities to develop their reading and writing skills while simultaneously helping students grow as critical thinkers. The district has provided professional development to the staff on the gradual release of responsibility, including providing training for administrators on the "look fors" so they can provide continual feedback and support to educators in their implementation of this instructional practice. The curriculum for each grade level includes the following thematic units of instruction:

Grade 6:
Folktales around the World, The Craft and Composition of Argument/Persuasion, Survival: Decisions and Consequences (unit on theme, characterization, setting, conflict, point of view as studied through various fictional and nonfictional texts), Civil Rights, and Poetry

Grade 7:
Greek Mythology, Perseverance, Poetry, Civil Rights and The Art of Argument

Grade 8:
Short Stories, Civil Rights, Poetry, Shakespeare's Midsummer Night's Dream and Hope Endures (Holocaust)

Mathematics

The district's middle school Mathematics curriculum aligns with the Massachusetts Curriculum Frameworks and provides an opportunity for students to follow an accelerated pathway which allows them to enter high school ready to study Geometry. All students complete the traditional 6th grade mathematics course to provide students with time to develop more mature thinking and reasoning skills. At the end of 6th grade, students' MCAS scores, formative assessment data, school achievement and teacher recommendations are reviewed to determine if the traditional path or accelerated path is indicated. In the accelerated program, students complete the 7th grade, 8th grade and Algebra 1 standards over the course of their two remaining years in middle school. The mathematics teachers emphasize the Standards of Mathematical Practice as overarching goals in their lessons, and have recently implemented skills-based performance tasks that assess these practice standards.

Science

The district's Science curriculum is currently in transition as we adopt the 2016 Massachusetts Science and Technology/Engineering Curriculum Frameworks. This is the last of our transition years, with full integration of the standards (Earth, Space, Life and Physical Sciences) in all grades. The focus of professional development has been on the Science and Engineering Practice Standards, both in terms of what the skills associated with these standards look like in the Science classroom and how to embed these skills into daily lessons.

Social Studies

The district's Social Studies curriculum is aligned with the Massachusetts Curriculum Frameworks, while emphasizing important themes including freedom, respect for human dignity, the impact of geography on civilization, and the rise and fall of civilizations. In 6th grade, students learn about the foundations of geography, economics and world religions. Students then explore each continent through a geographic, cultural and civic lens. In 7th

grade, students study the evolution of humankind through an exploration of ancient civilizations including Mesopotamia, Greece, Rome, Egypt and others. Students will also study the fall of Rome, the encounters between Christianity and Islam, and medieval Europe. In 8th grade, students are formally introduced to United States History and Government. Areas of focus include the American Revolution and its causes, the formation of the United States government, westward expansion, the Civil War and its causes, Reconstruction, Immigration and Civil Liberties, World War I, the Great Depression and the causes World War II. Teachers receive professional development on such topics as civil discourse, identity, and rights and liberties to promote civic engagement in the classroom.

Proposed:

As the current model has proven itself to be effective, Fuller Middle School intends to continue with this structure in the new facility. Aside from the substantially separate and transitional bilingual teams, each grade-level team will consist of an ELA teacher, a Mathematics teacher, a Science teacher, a Social Studies teacher, a Special Education teacher and an English as a Second Language teacher. The World Language teachers will continue to work in a cross-teaming model.

To improve upon this model, the proposed facility should create grade-level neighborhoods (cohorts) to create smaller communities within the larger Fuller Middle School. This design will be essential to ensuring students and staff feel a sense of belonging and connectedness, while also providing the necessary supervision of all students within the cohort.

Team meetings will still focus on individual student interventions, but will also provide opportunities for co-planning within and across disciplines. Teachers will work collaboratively to design projects with an interdisciplinary approach as often as possible. To this end, the proposed Fuller Middle School will have an auxiliary suite of offices within each cohort which contains a small group seminar space. These spaces provide a quiet place for team meetings, department planning sessions, professional development, itinerant use and staff work area.

Whenever practical, teachers will regroup students using the classroom breakout spaces to accommodate individual needs, teach mini-lessons, work on projects, and conference with student collaboration teams. By providing movable classroom walls to create larger learning environments, teachers can join classes for a truly interdisciplinary lesson. This helps to nurture the understanding that all teachers are responsible for

a child's success, not just within their own particular class, but across the entire spectrum of that child's education.

The Classroom Breakout Spaces are intended to be used for instructional purposes, both by students collaborating on projects and by co-teachers working with a subset of a class. The breakout spaces give teachers and students the flexibility necessary for inquiry- and project-based learning opportunities, while also providing staff with a quiet place to differentiate instruction for our English learners, students with disabilities and other students in need of intervention. This practice of splitting a co-taught class to differentiate based on student need is well established at Fuller Middle School, so it is expected that these breakout spaces will be used regularly throughout the day. The Small Group Seminar Spaces, on the other hand, are meant to provide staff with a dedicated space for research, collaboration, professional development and team meetings. These seminar spaces will be furnished with computers, curricular materials and a variety of resources, making them the hub for interdisciplinary co-planning and collaboration.

The proposed Fuller Middle School will continue to follow the district curriculum as currently written. As more units and projects are developed over time, students will be provided additional opportunities to learn through interdisciplinary lessons that are aligned with real-world situations. As Fuller Middle School continues its transition to a STEAM school, it promises to present more project-based learning opportunities tailored to student interests as a means of providing engaging, relevant and contemporary challenges. By providing options (choice and voice) to students, instruction becomes personalized and differentiated to match the interests, backgrounds and readiness levels of students. This will ensure optimal learning occurs through flexible groupings that allow educators to individualize instruction to meet the unique needs of students. Furthermore, it will support Fuller's inclusive model that focuses on each child's intellectual, social and emotional needs. The proposed Fuller Middle School, therefore, includes smaller classroom breakout spaces to allow groups of students to collaborate or conference, while also providing the cohort commons for larger groups to come together for co-teaching, interdisciplinary lessons, presentations, investigations, visits with scientists and other experts from the field, cross-team collaborations and other tasks. Along the same lines, the proposed facility should include outdoor learning spaces so students can explore their environment and make appropriate connections to their learning. Each cohort is to be provided with convenient access to an outdoor learning area to study living systems, environmental science, botany and other subjects related to elements of the environment, as well as to provide teachers the opportunity to teach traditional subjects outside. Depending on the weather, these spaces may also be used for activities which affect air quality, such as painting.

Project-based tasks, which require the flexible large- and small-group learning spaces described above, are critical to student achievement at Fuller Middle School. Since more than 50% of the students speak a language other than English in their home, and since 24% of students have an Individualized Educational Program (IEP), project-based tasks provide an entry point to learning regardless of a students' background and level of readiness. Furthermore, these tasks provide real-world, hands-on experiences for students and give meaning to the content students are learning. These tasks will integrate curriculum from multiple content areas and require students to investigate topics, develop their own hypotheses, conduct research and present solutions or resolutions. Such projects will require higher-level thinking and reasoning skills, particularly the ability to analyze, critique, synthesize, and design in a variety of

modalities. Students will develop their skills in articulation, debate, written and oral argument, presentation, building physical representation, and public speaking. They will also become better listeners and collaborators as they learn to appreciate the talents and ideas their peers bring to the group. Above all, students will learn the value of asking questions, the first step in paving the way for one's own learning. Through inquiry, students will understand not only what they are learning, but they are learning it. This, in turn, helps students gauge their own progress and assess their own skills. These are the skills we want all students to acquire so they will be successful beyond high school.

Visible learning is essential to promoting the growth mindset, therefore students and teachers will emphasize process as well as product with all tasks. Thus, student thinking will be seen and heard in every way possible. Students' works-in-progress will be on display, classroom workspace (tables and desks) will encourage student dialogue and collaboration, and breakout and common areas will provide opportunities to see and hear students interacting with each other as they engage in meaningful tasks. Additionally, building some level of transparency, to and from classroom and lab spaces and into shared learning commons, will be important.

The school district recognizes that teachers will need support in building their own confidence as they shift their instructional practice to match this model. The district is committed to providing educators with the professional development and ongoing support to develop these skills and build their own capacity. This will include training in project-based and personalized learning, effective Professional Learning Communities (PLCs), data-based decision making, and the growth mindset.

Teacher Planning and Room Assignment Policies

Current:

Teachers at Fuller Middle School are assigned teaching schedules, duties and planning periods in accordance with the Framingham Teachers' Association contract. All teachers have one planning period per day. Teachers are provided with their own individual classrooms, including ESL teachers and special educators. Classrooms are arranged by cross-discipline grade level teams. Teachers regularly meet for team and department meetings in classrooms as there does not exist adequate planning and work space for the staff. For the purpose of these collaboration meetings, teachers' schedules provide for common planning time.

Proposed:

At the foundation of interdisciplinary instruction and project-based learning is an understanding of the importance of providing teachers with sufficient time and the appropriate resources for collaborating. A large, dedicated space for materials, computers, printers, and conference tables is essential to this design. Breakout spaces, small offices and individual teacher desks are also necessary to provide quieter space for independent work or co-planning. Smaller conference spaces should be located within each cohort neighborhood to provide opportunities for teachers to meet regularly for team meetings and co-planning. By integrating these conference spaces into the cohort neighborhoods, the rooms become easily accessible to staff which increases the likelihood they will be used by teachers during their regular planning time.

Classrooms should be well-lit, using natural light whenever possible, and provide adequate space to reconfigure tables and chairs to fit the needs of any lesson (cooperative tasks, investigations, labs, assessment, learning centers, etc). To increase the flexibility of the space, classrooms should have the added feature of combining to create one larger room through the existence of a removable wall to provide for larger interactions between multiple groups. Furniture should be adaptable and flexible as well, allowing students to work independently or collaboratively, depending on the task.

While the traditional model assigns a separate classroom to each teacher, the district recognizes this does not always represent the best utilization of space. Furthermore, such a practice encourages teachers to remain at their desks in their classrooms during planning periods rather than seek out opportunities to work with colleagues. For this reason, the Fuller Middle School design does not provide for a separate classroom for each teacher. Rather, classrooms will be shared when necessary to more efficiently use space, increase collaboration, and promote peer observations. Thus, it is critical that the new facility provide teachers with a quiet place to work by arranging teacher desks within small teacher planning rooms (shared between two staff members), while also including the larger teacher workspaces to foster collaboration.

Due to the large number of English learners (41% of students) and students with disabilities (24% of students), Fuller Middle School will continue to use a co-teaching model whenever possible to most effectively meet the needs of students while providing the least restrictive and most inclusive environment possible for all students. To this end, the co-teachers often design

lessons that allow them to conference with smaller groups of students or teach separate lessons to different groups based on student readiness. To maximize the use of space and reduce the number of classrooms in the proposed Fuller Middle School, our facility design should contain classroom breakout spaces large enough for an inclusion or ESL co-teacher to work with approximately half of a co-taught class (12 students) while the rest of the students remain in the classroom with the general education teacher. By creating these small-group instruction spaces that can also be used for team meetings and co-planning sessions, we have eliminated the need for additional classrooms and simultaneously increased opportunities for teacher and/or student collaboration.

Each grade level will have its own designated area ("cohort neighborhood") in the new Fuller Middle School. All grade-specific classes (ELA, Math, Social Studies and Science) will be taught within these areas. In addition, each cohort neighborhood shall include designated ESL and Special Education classrooms to fully integrate all students within the whole school community. Thus, in each grade-level cohort, 2 Science classrooms will be designated for the general education Science classes. In addition, each cohort will be assigned 1 Science classroom for either the EL or Substantially Separate program. While the proposed model does not meet the minimum usage requirement of 85%, we believe these rooms are necessary in order to deliver our educational program. Science lessons involve hands-on experiments that must be set up in advance of the class period. These labs must remain intact for the duration of the day since all classes that rotate through the room will need the same set-up. Based on enrollment, Fuller Middle School will need 8 general education Science sections for each grade level. Having only one Science classroom would not suffice.. Thus, two general education Science classrooms will be necessary for each grade. Since our Transitional Bilingual Education (TBE) Science classes will need additional resources including translated materials, labels, and posters, and since the TBE classes may follow a modified scope and sequence depending on the educational background and needs of the students in this program, a separate Science classroom is necessary to provide the appropriate supports, resources and lab set-ups for the students. Thus, a TBE (Portuguese) Science classroom and a TBE (Spanish) Science classroom are essential to our educational program. Finally, for reasons similar to the TBE Science needs, our Substantially Separate program follows a modified curriculum and therefore needs its own Science classroom. If the TBE and Substantially Separate Science classes were to be moved into the general education Science classrooms during the unused periods, it would be necessary for teachers to break down and set up the labs throughout the day in order to create a safe and secure learning environment for all students.

Regarding the English Learner Classrooms, the TBE classrooms are language-specific (Spanish and Portuguese). The resources, including textbooks, reference materials, posters, and word walls are completely different and require separate spaces depending on the language. Thus, separate classrooms for the TBE-Spanish and TBE-Portuguese programs are necessary. Additionally, the district believes in providing an equitable educational experience for all students, regardless of program. This includes, for example, providing a designated Math classroom that looks and feels the same for our TBE students as for a general education student. The reference materials, manipulatives, posters, and student work on display should all be related to Mathematics. This same rationale applies to Social Studies and Language Arts. The district is able to provide this model in the current Fuller Middle School and believes it is important to continue providing the same experience in the new Fuller Middle School.

To provide greater access to support services and school leaders, it is essential that small auxiliary administrative suites be located within each grade-level cohort neighborhood. These auxiliary suites will house two student support personnel, a department head and an instructional coach, thus providing students with immediate access to the necessary social and emotional supports while simultaneously increasing teacher access to instructional resources. Each auxiliary suite shall also contain a small group seminar space for professional development, department planning sessions and grade-level team meetings. This design also helps the school move away from the more traditional model of the instructional hub separated from the administrative offices located at the front of the school. Since the district emphasizes that students' academic growth and social-emotional well-being are the responsibility of all adults, it is crucial to create these pockets of support and instructional leadership throughout the building, closer to the students.

An essential component of the Fuller Middle School program must be state-of-the-art science laboratories that provide the space to conduct experiments in a safe and fully-equipped environment. This includes lab benches, equipment and the appropriate technology to allow for science exploration of the life, space, earth and physical sciences.

As a STEAM school, Fuller Middle School needs designated space for students to develop their technological skills, design and build models, and generally explore, invent and create. To this end, Fuller Middle School requires three unique spaces: a classroom with computers equipped with the latest software for engineering, programming, video production and graphic design; a fabrication laboratory (FabLab) with 3-D printers and computers; and a large open classroom outfitted with large tables, tools, equipment and various supplies for a designated MakerSpace to provide hands-on project experience. These "creative" spaces must be large enough to provide students with the ability to safely move about the room as they design and build their projects, whether individually or in teams. While the Technology Education teacher will teach classes out of the computer classroom, she will utilize the FabLab and MakerSpace as part of her instruction whenever feasible. Furthermore, upon completion of the new facility, Fuller Middle School will need a STEAM instructional coach whose primary responsibilities will be to teach digital technology lessons to students as they work on projects in the FabLab and MakerSpace, and to work with teachers to design interdisciplinary projects aligned with the Fuller STEAM vision.

It should be noted that every teaching space, classroom breakout space and cohort common will be designed to accommodate hands-on project experiences. The cohort commons will be equipped with computers, whiteboards, and large work surfaces to support technical collaboration as well as hands-on project work. This provides flexibility so that, regardless of whether a Vocational Technology classroom is already in use, students can still immerse themselves in hands-on tasks. The 2,000 square foot MakerSpace is intended to accommodate large, specialized, noisy and/or potentially hazardous equipment that is not appropriate for the classroom. The MakerSpace will be provided with both woodworking and metalworking equipment, a vacuum exhaust system, and overhead electric power drops for flexibility. It will be located with a large exterior door easily accessible to the deliveries area for receipt of oversized materials. To complement the MakerSpace, the Fabrication Lab will be for digital fabrication, utilization of computers, 3-D printing, and other equipment use such as laser cutting to fabricate from digital files. Since the digital fabrication lab requires less space than a traditional wood shop, the Fabrication Lab is 1,200 square feet rather than 2,000 square feet.

It is complemented by the Tech Classroom, where many of the digital files for fabrication will be created by students.

The arts are an integral part of the Fuller Middle School STEAM program. Thus, adequate space, storage and resources are essential in the consideration of both configuration and location of the arts rooms. The arts classrooms should be centralized within the building, ideally near the large commons/cafetorium, so the arts are recognized for its contributions to the STEAM program. By strategically placing these classrooms around the common/cafetorium, this larger open space becomes an extension of the classroom which allows students to easily showcase their work and perform for large audiences throughout the day.

Outlined below is a room utilization chart to further illustrate many of our needs:

Classroom	Use	New or Existing Program
General Classroom 1	4 Grade 6 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 2	4 Grade 6 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 3	4 Grade 7 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 4	4 Grade 7 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 5	4 Grade 8 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 6	4 Grade 8 ELA Classes, WIN Block, 2 World Language Classes	Existing
General Classroom 7	4 Grade 6 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 8	4 Grade 6 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 9	4 Grade 7 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 10	4 Grade 7 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 11	4 Grade 8 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 12	4 Grade 8 Math Classes, WIN Block, 1 Guided Academics Class	Existing
General Classroom 13	4 Grade 6 Social Studies Classes, WIN Block, SLIFE Portuguese Literacy	Existing
General Classroom 14	4 Grade 6 Social Studies Classes, WIN Block	Existing
General Classroom 15	4 Grade 7 Social Studies Classes, WIN Block, Grade 7 Spanish Language Arts, Grade 8 Spanish Language Arts	Existing
General Classroom 16	4 Grade 7 Social Studies Classes, WIN Block, Grade 8 Portuguese Language Arts	Existing
General Classroom 17	4 Grade 8 Social Studies Classes, WIN Block, Grade 8 ESL 1 Social Studies	Existing

General Classroom 18	4 Grade 8 Social Studies Classes, WIN Block	Existing
General Classroom 19	Health Classroom, WIN Block	Existing
General Classroom 20	Drama Classroom, WIN Block	Existing
General Classroom 21	3 World Language Classes, WIN Block	Existing
EL Classroom 1	1 Spanish Language Arts Class, 5 ESL Classes, WIN Block	Existing
EL Classroom 2	2 Portuguese Language Arts Classes, 4 ESL Social Studies Classes, WIN Block	Existing
EL Classroom 3	1 Portuguese Language Arts Classes, 5 ESL Social Studies Classes, WIN Block	Existing
EL Classroom 4	1 SLIFE Class, 3 ESL Classes, 1 ESL Social Studies Class, WIN Block	Existing
EL Classroom 5	1 SLIFE Class, 3 Spanish Math Classes, WIN Block	Existing
EL Classroom 6	4 Portuguese Math Classes, WIN Block	Existing
SPED Classroom 1	4 Sub Separate ELA Classes, WIN Block	Existing
SPED Classroom 2	4 Sub Separate Math Classes, WIN Block	Existing
SPED Classroom 3	4 Sub Separate Social Studies Classes, WIN Block	Existing
SPED Classroom 4	Autism Classroom, WIN Block	Existing
SPED Classroom 5	Autism Classroom, WIN Block	New, Anticipated Need
SPED Classroom 6	Life Skills/Vocational Substantially Separate Classroom for Students with Intellectual Impairments	Existing
Science Classroom 1	4 Grade 6 Science Classes, 2 Grade 7 Science Classes, WIN Block	Existing
Science Classroom 2	4 Grade 6 Science Classes, 2 Grade 7 Science Classes, WIN Block	Existing
Science Classroom 3	2 Grade 7 Science Classes, 4 Grade 8 Science Classes, WIN Block	Existing
Science Classroom 4	2 Grade 7 Science Classes, 4 Grade 8 Science Classes, WIN Block	Existing
Science Classroom 5	3 Substantially Separate Science Classes, 3 TBE Spanish Science Classes, WIN Block	Existing
Science Classroom 6	1 Substantially Separate Science Class, 1 SLIFE Science Class, 4 TBE Portuguese	Existing

	Science Classes, WIN Block	
Technology Shop	MakerSpace for instructional use as needed for projects* and to support the Technology Education curriculum, scheduled for district review in 2018-2019. *Note: The district has hired a STEAM coach for the 2018-2019 academic year. This individual would be able to support the academic programming of this space.	Existing
Fabrication Laboratory	4 Technology Education Classes, WIN Block; Instructional space for 3-D model design and printing as needed	New/Replaces existing Technology Education Classroom
Art Classroom	4 Art Classes, WIN Block	Existing
Band Classroom	4 Band Classes, WIN Block, 1 Strings Instrumental Class	Existing
Chorus Classroom	4 Chorus Classes, WIN Block	Existing

Below is a sample schedule to indicate room usage for the EL Classrooms. It should be noted that all of these classrooms will also be assigned a What I Need (WIN) class during the intervention block (not listed here).

	EL Room 1	**EL Room 2**	**EL Room 3**	**EL Room 4**	**EL Room 5**	**EL Room 6**	**Moved to Gen. Classrooms (see Utilization Chart above)**		
A	ESL 4 (7-8)	Port LA (7)	ESL 2 (8)	ESL 1 (8)	Span Math (6)	Port Math (6)	~~Span LA (7)~~		
B	Span LA (6)	Port LA (6) 2001	PLA (6)						
C	ESL 1 (6)	ESL 3 Soc St (8)	ESL 2 (6)	ESL 1 (6)	Span Math (8)	Port Math (8)			
D	ESL 3 (7-8)	ESL 2 Soc St. (6-7)	ESL 1 Soc St (6-7)	ESL 1 Soc St (6-7)					
F	ESL 3 (6)	ESL 3 Soc St (7)	ESL 2 (7)	ESL 1 (7)	SLIFE Numeracy (Multi)	Port Math (6)	~~Span LA (8)~~	~~Port LA (8)~~	
G	ESL 4 (6-7)	ESL 3 Soc St (6)	ESL 2 Soc St (8)	SLIFE Spanish Literacy	Span Math (7)	Port Math (7)		~~SLIFE Portuguese Literacy~~	~~ESL 1 Soc St (8)~~

Below is a sample schedule to indicate room usage for the Science Classrooms. It should be noted that all of these classrooms will also be assigned a What I Need (WIN) class during the intervention block (not listed here). We carefully considered the recommendation to furnish Maker Space features into the science classrooms. However, given the anticipated 100% utilization of the science classrooms under our revised program, this would prohibit the use of that equipment by any of the other teachers. Therefore, we instead chose to consolidate the Technology Classroom into the Fabrication Lab to increase efficiencies.

	Science Room 1	**Science Room 2**	**Science Room 3**	**Science Room 4**	**Science Room 5**	**Science Room 6**
A	Gr. 6 Science	Gr. 6 Science	Gr. 7 Science	Gr. 7 Science	Sub Separate Science	Gr. 6 Port Science
B	Gr. 6 Science	Gr. 6 Science	Gr. 8 Science	Gr. 8 Science	Gr. 8 Spanish Science	Gr. 8 Port Science
C	Gr. 7 Science	Gr. 7 Science	Gr. 8 Science	Gr. 8 Science	Gr. 7 Spanish Science	Gr. 7 Port Science
D	Gr. 6 Science	Gr. 6 Science	Gr. 7 Science	Gr. 7 Science	Sub Separate Science	SLIFE Science (multi)
F	Gr. 6 Science	Gr. 6 Science	Gr. 8 Science	Gr. 8 Science	Gr. 6 Spanish Science	Sub Separate Science
G	Gr. 7 Science	Gr. 7 Science	Gr. 8 Science	Gr. 8 Science	Sub Separate Science	Gr. 6 Port Science

Lunch Programs

Current:

The Fuller Middle School lunch program provides 3 lunch servings per day to up to 210 students at a time. In addition, Fuller Middle School provides breakfast to students each morning before school.

Proposed:

The proposed Fuller Middle School must continue to provide breakfast and lunch service each school day. The proposed facility will be able to support two 30-minute lunch servings per day (315 students each) due to the size of the central commons area, which is also being designated as the cafeteria. In order to coordinate two lunch servings for three grade levels, students will be assigned lunch by subject rather than grade. This means students will attend lunch based on which class period meets during the lunch block. The two lunch servings will occur during the first 30 minutes of the period and the last 30 minutes of the period in order to provide an uninterrupted lesson for all students. This is an improvement over the current lunch program as students who have second lunch under the existing model lose valuable instructional time since they must leave class in the middle of the period and return to finish their lesson after lunch.

The new or renovated Fuller Middle School should have a full kitchen as well as several serving stations to provide a variety of meal options for students.

The cafeteria should provide plenty of natural light as well as access to an outdoor space. Since the cafeteria will be used throughout the day as a common area, the space should easily transform from dining hall to meeting space. It should have breakout areas for groups to collaborate, plenty of tables, charging stations for devices and full internet capabilities.

Finally, the cafeteria should be designed with noise-reducing features due to its large size and anticipated use.

Technology Instruction Policies and Program Requirements

Current:

The mission of the Middle School Technology Education Program for the Framingham Public Schools is to provide opportunities for interdisciplinary learning experiences where students can apply and reinforce math, science, computer literacy, and other specialized skills through the use of technology-based applications. In grades six through eight, students pursue engineering questions and technological solutions that emphasize research and problem solving. Students develop skills in Engineering Design by learning to conceptualize a problem, design, construct, and test prototypes, making modifications as necessary. Through these engineering challenges, students are given the unique opportunity to collaboratively apply numerous academic concepts through practical hands-on applications.

Fuller Middle School is 1:1 with its technology. Students start and end their day in homeroom where they pick up and drop off their assigned Chromebooks. The school's infrastructure is sound, with students and staff having internet access throughout the building.

Fuller Middle School's library is regularly used as the location for larger group meetings, workshops and presentations. It is also frequently used for community meetings in the evening. When these events take place during the school day, the library is closed, reducing students' access to its resources. While the library has some computer stations, it primarily serves as a traditional library. The school's librarian has made programmatic improvements to increase the library's inventory, circulation and traffic, but he is limited by these current constraints.

The Technology Education classroom is significantly lacking in the proper tools for learning in the 21st Century. The teacher does not use the current set of computers because they are slow, inefficient and lack the proper software. While the Technology Education teacher does have a 3-D printer, the Technology Education teacher does not utilize this regularly due to her lack of other adequate equipment.

The classrooms at Fuller Middle School are not equipped with Smartboards or other technology. At best, teachers use portable projectors and document cameras to teach their lessons.

Proposed:

The Framingham Public Schools is in the process of revising its Technology Education curriculum so it aligns with the 2016 Massachusetts Science and Technology Education Frameworks. As part of a STEAM program, Technology Education at Fuller Middle School will incorporate project-based learning through science, technology, engineering, arts and mathematics. The goal of Technology Education is to spread technological literacy by providing a variety of hands-on activities using current technology. Technology Education emphasizes

both design and problem-solving skills while raising students' awareness of career options in the technical fields.

In order to prepare students for the technological "unknowns" of our future society, we must equip our students not only with technical skills but with the ability to adapt in this rapidly-changing world. Fuller Middle School's educational program continues to expand students' opportunities to utilize technology, and its educators recognize that placing a device in students' hands is not enough to reach our goals. By increasing instruction around digital literacy, computer programming, technology education and communication technology, students will become more comfortable exploring new technological advances.

Since Fuller Middle School is transitioning to a STEAM model, all spaces must be equipped with internet so students can access their learning in any corner of the building. Daily, students are encouraged to be resourceful in their problem solving and technology plays a key role in this process. At the center of project-based learning in a STEAM setting is the engineering design model where students must identify and research a problem, brainstorm possible solutions, select a solution and develop a prototype, test the solution and make improvements, and ultimately communicate findings. This requires not only a technological infrastructure and a MakerSpace for students to build their models, but also an outlet for disseminating and presenting results to a larger audience. The commons/cafetorium should be equipped with high-quality sound and lighting equipment to provide such a venue. Additionally, while the square footage for the MakerSpace and Fabrication Lab areas falls below the MSBA guidelines, this reduced figure only meets the District's needs provided the cohort commons are included in the program. The cohort commons are intended to accommodate both Media Center and Vocations and Technology functions. Per the education plan, the cohort commons will have computer stations and large work surfaces to support both "hands-on" projects and technology collaboration. In an effort to coordinate with MSBA guidelines, the PDP space summary included a reduction in the Media Center category of 2,103 nsf along with this 2,250 nsf reduction in Vocations and Technology, for a total of 4,353 nsf below MSBA guidelines. In the attached revised space summary, the district proposes that the size of the 3 cohort commons be reduced from 1,500 sf to 1,450 sf for an aggregate 4,350 nsf, just below the aggregate MSBA guidelines.

While the entire school should be considered a "media center," Fuller Middle School must still dedicate a space for a true library to nurture a love of reading, provide a variety of digital resources, and facilitate both online and traditional research. This Library/Media Center should divide its space between shelves of books, computer stations and tables. Ideally, this Library/Media Center will be adjacent to a larger common area to expand the space available for groups to work collaboratively. Please reference the district's response to the Vocations and Technology comment in the paragraph above. The cohort commons has been moved to the Media Center Category and reduced to 1,450 nsf to comply with aggregate MSBA guidelines for Media Center and Vocations and Technology.

To support 21st Century instruction, classrooms should be equipped with state-of-the-art technology for presenting information. Interactive boards or LCD screens that provide connectivity to a computer or laptop are essential to allow teachers to present the latest digital images, videos or graphical displays to their students. All science laboratories should also be

equipped with wireless internet so students can record data, create accurate graphs, view videos, share information and conduct research in real time.

As described above, the FabLab and Technology Education classrooms require a classroom set of computers with the latest software for engineering, programming, video production and graphic design.

Art, Music and Theater Programs

Current:

The Framingham Public Schools is proud of its Fine and Performing Arts program, including its award winning Band and Drama programs. Fuller Middle School is no exception. Students of all ages are exposed to visual arts, music, and theater in a rich, inclusive, and culturally proficient program at all grade levels. A primary goal of the district's middle school Fine and Performing Arts program is to spark a passion for the arts in all of our students so they pursue not only the academic offerings but also the extracurricular programs at Framingham High School, where our students perform competitively each year and often earn national recognition.

The Arts teachers are incredibly special to our instructional program since they each impact child in the school. By serving as the sole providers of their particular content area within the school, they are tasked with instilling an enthusiasm and appreciation for the arts to over 500 students. This requires a well-furnished, inviting and spacious teaching environment.

Art:
In the Fine Art classes, all learning is project-based and student-centered. Students build their technical and observational skills, deepen their understanding of artistic styles, and learn that every person is an artist. They increase their confidence through creativity, curiosity and self-reflection. Throughout the program, students develop a deeper understanding of the Elements of Art and the Principles of Design. Students are not graded on artistic ability, but rather on effort and craftsmanship. Students create projects to demonstrate their understanding of foreground/background, silhouettes, perspective, printmaking, and mandalas. Students work both individually and collaboratively as they develop skill and confidence.

Music/Chorus/Band:
In Music, Chorus and Band classes, students learn about music theory and history while developing their skills as a musician and a performer. Above all else, students learn about themselves and their individual responsibility as a member of a team. Students are taught a range of musical concepts including rhythm, tonality, expression, composition, musical form, improvisation, and music's impact on culture around the world.

Theater:
The Drama curriculum increases language development, analytical skills, social skills, collaboration and team building fluency, articulation, self-confidence and problem solving. Students develop their voice and ways of expressing their voice to achieve a goal. Working cooperatively, students recognize their contributions to a greater community both within their classroom and globally. The primary objective of the middle school Drama program is to teach students basic techniques through guided, creative, play so they can begin to feel more confident using their voice to express ideas on stage and with practical applications in life as

they move on to high school. Students are introduced to a wide variety of concepts including stage basics, theater etiquette, the evolution of storytelling, non-verbal communication, choral poetry, focus and concentration, improvisation and perspective.

The Arts classrooms are not integrated with the rest of the school. They are virtually hidden and segregated from the rest of the instruction that takes place in the school. The rooms lack the appropriate resources to teach the curriculum beyond the basics. For example, the Fine Arts classroom lacks a kiln, even though another middle school has one.

The current Fuller Middle School has a dedicated auditorium that is used regularly for school plays and concerts, school-wide assemblies, and community forums and events. While the auditorium is out-of-date, it is a space that has come to be depended upon by both the school itself and the greater Framingham community.

Proposed:

Fuller Middle School is ready to embrace its identity as a true STEAM school by incorporating the arts into its project-based, student-centered learning. Whether through the study of instrument design, building of sets, the mathematics behind music, or the impact of sound waves on music, the arts will be a focal point of the Fuller Middle School instructional program. We wholeheartedly believe adequate space should be included in the design of the new facility to achieve this goal to its fullest potential. In any building design, it will be imperative that students are provided multiple venues to display and exhibit their art and academic work.

Fuller Middle School will serve its students best with the following spaces, which should be centrally located near the commons/cafetorium for maximum visibility:

- One large Art classroom with large workspaces, plenty of storage, and a kiln to align with another middle school
- One Band classroom with an additional small practice room for individual or small-group rehearsal
- One Chorus classroom with an additional small practice room for individual or small-group rehearsal
- One Theater classroom for Drama instruction and after-school play rehearsals.

In considering the inclusion of a dedicated auditorium in the new facility, we are reviewing options that will allow us to continue to provide the same opportunities and access so the school and district can support the performing arts programs at Fuller Middle School as well as the needs of the greater community.

Health and Physical Education Programs

Current:

The Framingham Public Schools recognizes the importance of providing a high-quality and comprehensive Health and Physical Education curriculum to all students. The district's Physical Education program is carefully crafted to be an enjoyable, productive, and beneficial experience for students of all skill levels. Teachers establish an environment that is safe, welcoming, and energetic so students are able to practice important life skills including teamwork, cooperation, problem solving, and process orientation. The goal is to help all students identify activities they enjoy so they will lead a healthy and active lifestyle. The Health curriculum promotes wellness, positive attitudes, communication skills, healthy behaviors, and decision-making skills. Building off the curriculum from earlier grades, students learn how good health can impact all areas of growth, development and lifestyle. Our middle school program meets or exceeds all National Health Education Standards including the Massachusetts Curriculum Frameworks, with the goal of empowering students to be critical thinkers when it comes to decisions regarding their personal behavior.

Fuller Middle School provides outdoor recreational space in the area surrounding the building. This includes a large football/soccer field, a small lacrosse field and an adult-sized softball field. These fields are used for instructional purposes during Physical Education classes as well as recreational areas during school recess. The fields are used by the Framingham community for athletic practices and sporting events throughout the warmer seasons.

Proposed:

There are no proposed changes to the Health and Physical Education program at Fuller Middle School.

The Health and Physical Education program at Fuller Middle School requires:

- a spacious and welcoming Health classroom where students can move around, engage in dialogue with one another, explore topics and interact with physical models;
- a full-sized gymnasium with adequate storage so students can regularly engage in cooperative, physical activities
- Two separate locker rooms (Boys/Girls), each with enough space to secure the belongings of approximately 40 students at any given time
- a gender-neutral changing room accessible to anyone, with a shower and space to secure the belongings of approximately 5 individuals at any given time
- Two small offices located outside the gymnasium for the Physical Education teachers where they can plan lessons, store additional equipment and meet with students

Since the athletic fields and green space are used not only by the students during the school day, but also by the Framingham community as a recreational outlet, it is vital to the school and

district that the outdoor facilities are not compromised by a new school facility. Therefore, the educational program supports the preservation of all athletic fields and green space whenever possible. For any field or green space that is impacted by the construction of the new Fuller Middle School, the educational program supports the relocation of such space to another area of the school property upon completion of the project.

Special Education Programs

Current:

Framingham Public Schools provides a broad array of services for children and youth identified with disabilities from the ages of three through twenty-two. State and federal special education laws and regulations, namely The Individuals with Disabilities Education Act (IDEA), govern the referral, evaluation and placement procedures. Framingham Public Schools is committed to the goal of providing an appropriate education for students with needs in the least restrictive environment.

- Resource Room/In-Class Support
- Partial Inclusion Opportunities
- Occupational Therapy
- Speech and Language Therapy
- Physical Therapy
- Adaptive Physical Education
- BCBA/ABA Services
- Teacher of the Visually Impaired
- Orientation and Mobility

The inclusion classroom consists of a certified special educator who rotates through the student's schedule in order to ensure that the student on an Individualized Educational Program (IEP) understands the curriculum and is meeting his/her responsibilities. Individual and small group assistance is provided within the standard curriculum classroom. In addition, the student has a daily support class with their special educator on their team. The special educator provides consultation to standard curriculum teachers regarding student's learning style and educational needs. The special educator and teacher assistant ensure that accommodations are being implemented in the standard curriculum classroom.

In addition to our inclusion model, Fuller Middle School houses 2 special education substantially separate programs:

- This program serves students who have significant intellectual and learning challenges. Some students in the program have significant weaknesses in the areas of social skills activities of daily living. The program focuses on functional life skills and knowledge about community, in order to function as independently as possible. Other students in the program have excellent social skills and benefit from a more traditional academic curriculum, with the academic curriculum provided in a slower rate. This program has the capacity to work with both types of students, as we offer both a functional life skills curriculum and a curriculum, which mirrors the standard curriculum. Students are grouped into multi-grade classes according to ability levels. There is a three-year curriculum sequence. Students receive academic instruction in language arts, reading, math, science, and social studies. Students also take an academic support class for review and reinforcement of academic

content. Students receive all academic instruction from certified special educators. Students take different subjects with different special education teachers, so they have the middle school experience of moving from class to class. Students who are in the functional life skills group participate in a vocational program. Performing various jobs around the building (e.g., delivering newspapers, emptying recycling bins) helps them to develop greater independence and provides opportunity for hands on, practical learning. Students in this program run a café that is open on selected Fridays throughout the school year.

- : The program serves students on the Autism Spectrum who require more social-pragmatic, academic, and behavioral support. The programs provide intensive behavioral training relying upon ABA principles and total communication techniques in order to develop social skills and academic readiness skills. The program blends social/developmental as well as behavioral approaches whenever possible to address the educational challenges faced by this population of students. In addition to the special education teacher and teacher assistant, there is a teacher aide in the classroom.

The program for students with intellectual impairments requires:

- 4 classrooms (12 students maximum in each classroom)
- Multigrade groupings (grades 6-8)
- Functional/life skills component with access to a garden/courtyard and student kitchen area

The program for students with Autism requires:

- 1 classroom (12 students maximum)
- Multigrade groupings (grades 6-8)
- Quiet spaces in order to provide discrete trial teaching methodologies

Bilingual special education services are provided to students at Fuller Middle School who need both special education services and instructional support for English Learners. Students have access to related services such as speech-language services. The bilingual special educator is fluent in Spanish or Portuguese and can provide native language support to students whose first language is Spanish or Portuguese. The bilingual special educator teaches special education classes in core curriculum subjects and provides consultation to other teachers regarding the student's educational needs. Bilingual speech and language therapists are available to provide native language support to students whose first language is Spanish or Portuguese.

<u>Proposed:</u>

In addition to our current needs, the new facility should provide room for an additional Autism classroom based on enrollment at the elementary schools, resulting in 2 classrooms for the Autism program.

Since the proposed plan for the new or renovated Fuller Middle School fully integrates our special education programs within the greater school community, it will be important to provide the necessary office and instructional space within each neighborhood to support these needs. Specialists, including our two Speech and Language Pathologists and Literacy Specialist, will

each require a small classroom equivalent in size to a conference room in order to work with up to 8 students at a time. Each special educator shall require a desk with sufficient storage to secure required documents (including Individualized Educational Programs). These desks should be located in teacher planning rooms (pairs of teacher desks within small offices) so teachers can conduct meetings or make necessary phone calls while ensuring student confidentiality. Inclusion teachers, while primarily serving as co-teachers, will need access to a breakout space large enough to work with a group of up to 12 students at any given time.

Regarding the configuration of the special education classrooms, the spaces should be the same size as the standard classrooms, especially because some of the students may have physical limitations and be in wheelchairs or have other equipment needs. The furniture should be moveable to provide flexible classroom space for both of the substantially separate programs. Additionally, each room should be furnished with a variety of seating, such as sensory cushion seats and standing desks.

Adaptive Physical Education in all Framingham schools occurs in the same space as Physical Education classes. Framingham has one Adaptive PE teacher for the district who provides the adaptive needs in the classroom for the students and works closely with the PE teachers, guiding them on how to adapt their lessons and activities so that all students can access them in some way.

The gymnasium has been sized at 6,500 sf to allow safe run-off areas and space for adaptive PE teachers on the sidelines. The project is targeting the LEED credit for advanced acoustic performance, which will meet sound transmission class (STC) requirements of ANSI S12.60–2010 Part 1.

Framingham currently has a contract with the Learning Center for the Deaf to assist with appropriate equipment, (hearing aids and FM systems) and other acoustical accommodations for the classrooms and schools. It is currently anticipated that assisted listening technology will be hardwired into the sound system of the auditorium, Gymnasium, and Cafeteria, and portable FM systems will be available for classrooms as needed. Additionally, it is anticipated that some sound assist amplification will be provided in each classroom. This approach will be reviewed and confirmed in Design Development.

Since some of the students require lifting for toileting, a bathroom outfitted with a Hoyer lift to assist in the safety of the staff and students would be ideal.

The substantially separate classrooms have multiple grade levels in each group, therefore it is essential that the classrooms be centralized so that they have equitable access to the 6th, 7th and 8th grade teams.

Additional considerations:

- Acoustics will be important for hearing impaired students
- Lighting and reduction of glare from windows will help students with vision impairments
- Any outdoor learning space will need to be handicap accessible
- Classrooms should be flexible (collapsible walls) so they can be reconfigured into smaller learning spaces to meet the instructional needs of the students

Vocational Education programs

Current:

Fuller Middle School staff understand that, although their students are as young as 11 years old, the conversation about college and career begins now. Educators have regular conversations with students about college options, including an annual College Door contest, in which homerooms decorate their doors with a college banners. During the month of October, discussions take place during WIN blocks where students have opportunities to explore colleges and careers, learn about financing for college, and academic goals for college and career readiness. Furthermore, the entrance to every classroom displays a sign with the teacher's name and alma mater and every Friday, staff wear gear from their alma mater. In the spring, 8th grade students visit Framingham State University to tour the school and learn a little about college life. By raising students' awareness of college options, we are opening their eyes to the possibilities and motivating them to achieve academic success.

Proposed:

Fuller Middle School intends to continue its current vocational education programs while expanding opportunities for students to visit colleges, shadow professionals on the job, and establish long-term goals.

As Fuller Middle School expands its STEAM program, this increases the potential for discussions about students' interests and career possibilities. The very nature of inquiry- and project-based learning lends itself to identifying areas of passion for individual students and can provide teachers with the necessary information to open students' eyes to possible vocations.

Transportation Policies

Students in kindergarten through 6th grade who currently live more than two miles from their assigned school will be provided transportation at no charge by the Framingham Public Schools. Students are considered ineligible for bus transportation if they are in kindergarten through 6th grade and live less than 2 miles from their assigned school. Additionally, all students in Grades 7 through 12 are considered ineligible riders. The Framingham Public Schools may offer ineligible students the ability to purchase a seat, if available, on a District bus, for a fee.

Functional and Spatial Relationships and Key Adjacencies

Current:

The current facility's entrance leads into a large hallway, but visitors must turn left and head down a corridor to reach the main office. The main office itself is open and full of positive activity, but it is outdated and lacks natural lighting. Here, one will find the offices of the Principal and Vice Principal, as well as guidance and support staff. There are also two conference rooms. The smaller of these two rooms is connected to the Principal's office.

The library is next to the main office, with easy access for visitors. This is significant since the library is regularly used in the evenings as a community meeting space.

The school's cafeteria and gymnasium are located in remote corners of the building, out of sight of anyone not heading towards these spaces.

For the most part, classrooms are contained in traditional hallway patterns, but it should be noted that Technology Education classes are taught out of a standard classroom.

The MakerSpace is currently housed in the former wood shop classroom. The space contains mostly woodworking equipment (table saws, drill press, planers, etc) and some robotics equipment. While the MakerSpace is available to all teachers, it is primarily used by the Technology Education teacher.

Proposed:

The entrance to Fuller Middle School should be welcoming of students, staff, families and visitors. The principal, vice-principal and secretarial staff should be located in this area. In addition, the main office area should include both large and small conference rooms for meetings, since the conference rooms in the existing building are in constant use.

Each grade level will have its own learning community, designated by a "neighborhood" of the building. Each wing will be composed of classrooms, science classrooms, special education classrooms, ESL classrooms, teacher planning rooms, breakout rooms, and a cohort common. Teachers work in cross-discipline teams and will need to the time and space to collaborate with each other and co-teach lessons in varied learning environments. In addition, each wing will have a "satellite" administrative suite consisting of four offices: two for support staff, one for a department head and one for an instructional coach. This suite will also provide access to a waiting area with storage closet, and a small conference space.

Across the district, we are seeing a significant rise in the social and emotional needs of students. Children require access to support staff with whom they feel comfortable and have developed a relationship. By moving guidance counselors and other support staff into "satellite" administrative suites closer to classrooms, support staff will be more visible to the students,

increasing their familiarity with these adults. By establishing stronger connections and increasing opportunities for staff to get to know students, staff can be proactive in addressing individual needs. This also heightens the level of accountability of students and supports them in building their confidence and self-advocacy skills. Additionally, out-of-class time will be reduced by the closer proximity of the offices, which will ensure instructional time is preserved as much as possible.

Essential to the design of the new Fuller Middle School is flexibility in the use of space. Classrooms with movable walls; breakout spaces and common areas of various sizes; a cafeteria that serves as a learning, demonstration and collaboration center all day long; reliable internet access throughout the building; and creative spaces for hands-on and interactive learning (MakerSpace, FabLab, Arts rooms) are critical components to our STEAM school.

Central to this plan is a community gathering space where works in progress can be displayed, students can present their projects, and groups of students can be seen learning and exploring together. The cafetorium will serve this purpose, ensuring productive use of this large space throughout the day. The Library/Media Center should be adjacent, with a large opening into the cafetorium to expand the learning space for this center. Grade-level neighborhoods should surround this central common area, making it the heart and hub of all teaching and learning.

Security and Visual Access Requirements

Current:

The exterior doors of Fuller Middle School are locked while school is in session. Staff members use an electronic pass to access the building. Visitors must buzz the main office to request entrance to the building. A sign is posted telling visitors to report to the main office, but since there is no sight line from the main office to the entrance, it is difficult to monitor such traffic.

The current facility is equipped with video cameras, security alarms and a two-way communication system so staff are able to contact the main office in an emergency.

Fuller Middle School staff adhere to all safety protocols as required by the city and the district, and follow a strict emergency response plan created specifically for the existing Fuller Middle School.

Proposed:

Safety is of our utmost concern and must be a high priority consideration in the design of a new or renovated Fuller Middle School. By preventing the distractions posed by safety and security issues, students and staff will be able to focus their attention on the real purpose of Fuller Middle School: teaching and learning.

Visibility should be optimized, with as few pockets or hidden corners as possible, in order to properly supervise students and visitors at all times. While it is likely visibility will be enhanced by the use of glass windows instead of walls in some cases, all internal and external windows must be equipped with shades that can be drawn quickly in case of emergency.

The school must remain locked during the school day so an electronic access system for staff is essential, as well as a system for visitors to buzz the main office to request entrance to the building. Visibility from the entrance of the school to the main office is necessary to ensure all visitors check in with school personnel before engaging with the greater school community.

All spaces should be equipped with access to two-way communication with the main office in order to ensure security and timely communications. A state-of-the-art security system, including alarms and a surveillance cameras, should be a part of any design.

Adherence to all city and district accessibility, fire, safety and security regulations must be included in the design, and align with district emergency response plans. The Framingham Public School District will continue to work collaboratively with the Framingham Police and Fire Departments on safety and evacuation procedures to ensure the proper security measures are in place. A new Fuller Middle School emergency response plan will be created to align with the new or renovated facility.

Since Fuller Middle School is a community hub that is regularly used at night for a variety of community meetings and school-wide events, and since the building currently houses our Adult

ESL program, appropriate lighting should surround the exterior of the facility to provide a safe path from the parking lots to the school. In addition, careful consideration should be made regarding traffic patterns, entry and egress systems, and lines of sight. Ideally, the new or renovated Fuller Middle School will provide options to secure designated parts of the building while providing the general public with access to specific areas (cafetorium/commons, gymnasium, etc.) during after school and evening events.

Fuller's Guiding Design Principles and the District Strategic Plan, Revisited

The Educational Program for Fuller Middle School thoughtfully adheres to its Guiding Design Principles in concert with the District's Strategic Plan. The elements of the program that align to each principle and goal are outlined below.

1. Transdisciplinary Instruction

Through project-based, interdisciplinary learning and an active use of the MakerSpace and Fabrication Lab, students and teachers will explore academic content areas through a cross-disciplinary and collaborative model. By engaging students in challenging, real-world problems, students will demonstrate their understanding of concepts through their application of skills on projects.

2. Personalized and Collaborative Learning

Through flexible grouping and the use of breakout spaces and common areas, students will interact with adults and students in a variety of settings. By selecting individual projects that match their interests and needs, students will begin to take charge of their own learning by asking questions and engaging in the engineering design process. Staff will continue to meet regularly with their grade-level teams to review student data and identify appropriate interventions.

3. Whole Child, Whole Community

Fuller Middle School has regular, built-in instructional time to address social-emotional curriculum and school-wide expectations with all students through the What I Need (WIN) block. In the new or renovated building, students will have greater access to support staff since these adults will be housed in auxiliary suites within each grade-level neighborhood. By creating smaller neighborhoods within the school, students and staff will truly get to know each other and develop strong interpersonal relationships. This model also promotes collegiality and a sense of belonging.

4. Visible Learning

The new or renovated Fuller Middle School will embrace collaboration and the growth mindset. Through presentations, demonstrations, display of works-in-progress, academic discourse and student collaboration, students and staff will be surrounded by evidence of learning in action. By providing large windows and access to an outdoor space, learning will extend beyond the walls of the classroom and school.

5. Community and Civic Hub

The new or renovated Fuller Middle School will become the crowning jewel for South Framingham. The community depends on the current facility as a central location for meetings, adult learning, school productions and recreational activities. For this reason, the new facility will be a symbol of the city's commitment to the neighborhood and provide a welcoming hub for civic activity.

6. Adaptability

The new or renovated facility is an investment in both the future of our students as well as the greater Framingham community. This building will need to stand the test of time, which is only possible if the space is adaptable enough to meet the city's future needs. Given the rapid rate at which the world continues to evolve, the new Fuller Middle School design will meet this challenge by providing the flexibility to reallocate space based on instructional needs.

Summary: Fuller's Educational Program and Preferred Design

The new Fuller Middle School must support the Guiding Principles as outlined in this Educational Program in order to fulfill the needs of our students and community. The preferred design thoughtfully and thoroughly meets these principles as outlined below:

1. Transdisciplinary Instruction

Collaboration among content teachers and integration of subjects are supported by the preferred design. The MakerSpace, Fabrication Lab, Cohort Commons, and larger Commons (cafeteria) promote and encourage transdisciplinary learning by their very nature. They are shared spaces that invite inquiry, exploration, research and discovery. Since partitions between classrooms are removable, the merging of classes for shared experiences and project-based learning will be easily facilitated. Furthermore, the integration of the science labs within each neighborhood cohort, rather than being grouped together in a separate wing, ensures the science classes are part of this interdisciplinary model as well. While the staff of Fuller Middle School has worked collaboratively with a consultant in its transition to a STEAM school up to the present time, the Framingham Public Schools has demonstrated its commitment to transdisciplinary learning by adding to its budget for fiscal year 2019 a STEAM coach to support further development and implementation of transdisciplinary units of instruction and other project-based learning opportunities. Through this additional position, staff will be well-trained, experienced and confident in this instructional model prior to the opening of the new building.

2. Personalized and Collaborative Learning

The preferred design not only supports personalized and collaborative learning, it encourages it. The Cohort Commons, larger Commons (cafeteria), removable classroom walls, and breakout spaces invite students and teachers to expand their classroom beyond its four basic walls. By situating the Library Media Center adjacent to the larger Commons, learning spills out into the larger space, thus promoting greater collaboration. By including a Maker Space and Fabrication Lab, the new Fuller Middle School promotes project-based learning. With the support of the new STEAM coach, teachers will offer choice and voice through project-based instruction whenever appropriate. At all times, students will be expected to reflect on their progress and learning by engaging in the engineering design process.

The preferred design also makes it easier for staff to collaborate. Rather than having a desk in their own classroom as their work space, teachers will share an office with another staff member. This promotes conversation, collaboration, and a team mindset. Larger teacher workspaces will be stationed in each cohort, adjacent to the offices of the department heads and support staff, for team meetings and other collaborations. Staff will continue to meet regularly with their grade-level teams to review student data and identify appropriate interventions. All of the practices will promote a shared responsibility for all students, and for all aspects of a child's education.

3. Whole Child, Whole Community

The new Fuller Middle School will make it easier for all staff, but especially support personnel, to develop positive relationships with students. In the preferred design, support personnel have offices directly located within the auxiliary suites of each cohort neighborhood, and not in the main office at the front of the building, thus providing students and staff with greater access to these staff members. Support staff will be closer to the students on their caseload and will be able to engage with students not only when they are receiving services but during those informal moments between classes, at locker time and before homeroom. In this way, support staff will be able to get to know their students better so they can more proactively address concerns.

4. Visible Learning

The preferred design embodies the growth mindset and visible learning. All aspects of the selected model promote opportunities for students to share their learning with others--not just at the final stage of the project, but throughout the learning process. From breakout spaces to Cohort Commons, from removable classroom walls to the use of glass to promote visible learning, students will be able to share what they are doing with their peers as well as teachers. Furthermore, by providing access to outdoor spaces, learning will extend beyond the walls of the classroom and school. In this way, visible learning will also extend to the greater Framingham community.

5. Community and Civic Hub

The preferred design carefully addresses the needs of the community. By including a fully-equipped auditorium and larger gymnasium, the Framingham community will be able to use this facility in the way it needs: for athletic clubs all year long, for community meetings, for concerts and other performances, and for civic engagement.

6. Adaptability

The preferred design addresses the needs of the current educational program without being risky in its layout. By including traditional features including standard classrooms, fully-functioning cafeteria, upgraded technology, and state-of-the-art science laboratories, we have ensured the selected model meets current guidelines while preparing us for the future through its flexible floorplan.

Resources

For more information:

Project-Based Learning

https://www.bie.org/about/what_pbl -- Buck Institute for Education; one-page summary of project-based learning with tabs to additional information

http://www.nea.org/tools/16963.htm -- National Educators Association; Links to Research-Based Resources

https://www.edutopia.org/project-based-learning-experts -- Edutopia: Project-Based Learning: What Experts Say

http://www.ascd.org/publications/educational_leadership/sept10/vol68/num01/Seven_Essentials_for_Project-Based_Learning.aspx -- Educational Leadership (ASCD); Includes an explanation of the essential components of a project-based learning experience

STEAM

https://www.ed.gov/stem -- While focused primarily on STEM education, this site highlights the importance of improving STEM education in our schools

https://www.edutopia.org/blog/pbl-and-steam-natural-fit-andrew-miller -- This article makes the connection between STEAM and Project-Based Learning

https://www.edutopia.org/article/STEAM-resources -- Links to resources that discuss how the arts and humanities are incorporated into STEM programming

21st Century Skills

https://www.brookings.edu/blog/education-plus-development/2017/10/17/how-do-we-teach-21st-century-skills-in-classrooms/ -- Research from the Brookings Institute

https://www.edutopia.org/discussion/15-characteristics-21st-century-teacher -- Emphasizes the shift in instructional strategies to teach 21st Century skills

http://www.nea.org/assets/docs/A-Guide-to-Four-Cs.pdf -- Comprehensive report on 21st Century learning