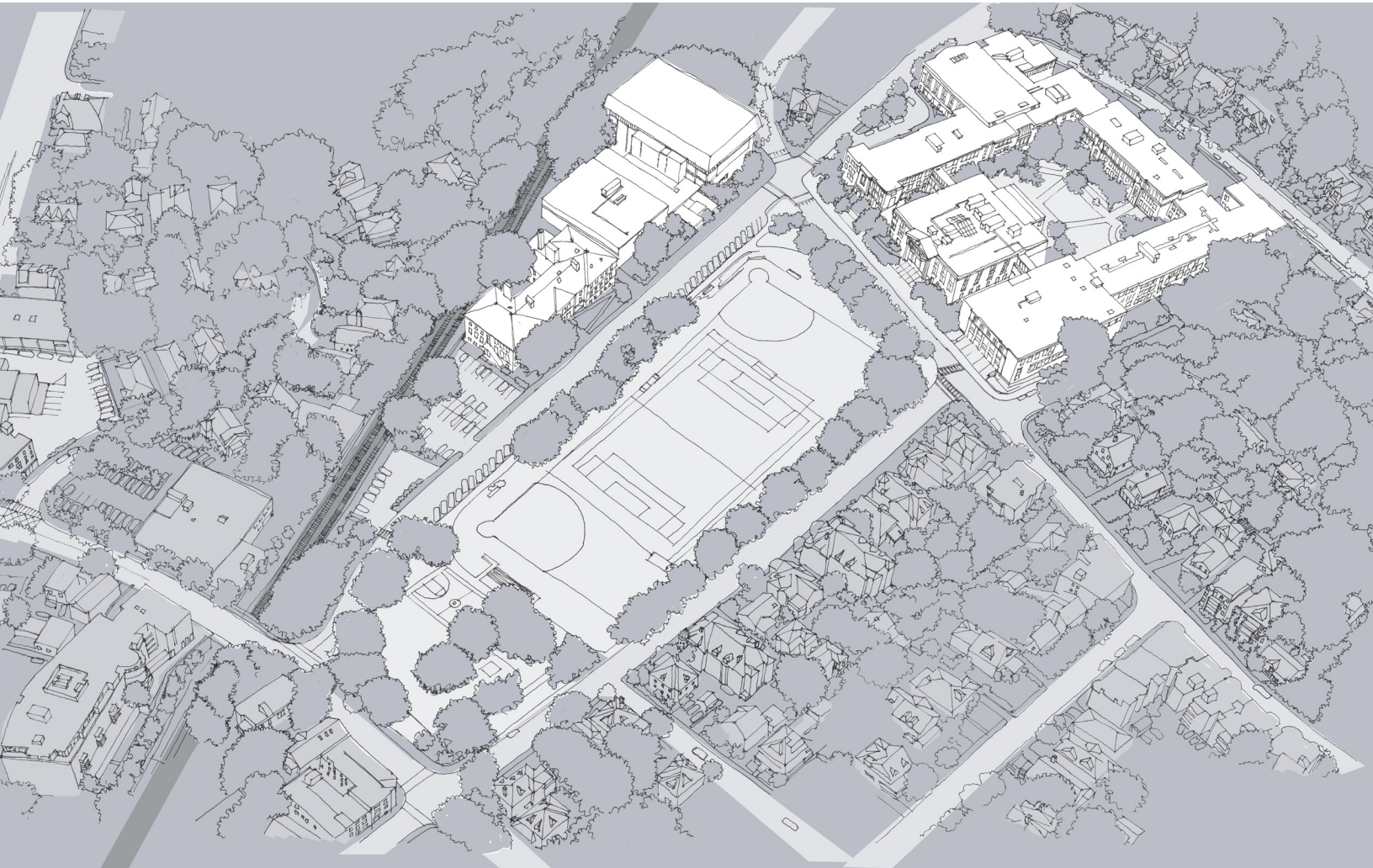




Brookline High School Feasibility Study

JUNE 2017 DRAFT

VOLUME 1 OF 3



HMFH ARCHITECTS

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Acknowledgment

Brookline High School Building Committee

George Cole | Co-Chair - Building Commission

Nancy Heller | Co-Chair - Selectmen

Susan Wolf Ditzkoff | Co-Chair - School Committee

Nancy O'Connor | Park and Recreation Commission Member

Ian Roffman | School Parent Community Representative

Jordan Meranus | School Parent Community Representative

Matthew Oudens | Greater BHS Community Representative

Bobbie Knable | Greater BHS Community Representative

Mel Kleckner | Town Administrator

Daniel Bennett | Building Commissioner

Andrew Bott | Superintendent of Schools

MaryEllen Dunn | Deputy Superintendent of Schools for Administration and Finance

Nicole Gittens | Deputy Superintendent of Schools for Teaching and Learning

Anthony Meyer | Brookline High School Headmaster

Jenee Ramos | Brookline High School Dean

Nicholas Gerszten | Student Representative

Ray Masak | Project Manager, Building Department

Brookline School Committee

David Pollak | Chairman

Michael Glover | Vice Chairman

P.H. Benjamin Chang | Member

Helen Charlupski | Member

Susan Wolf Ditzkoff | Member

Suzanne Federspiel | Member

Julie Schreiner-Oldham | Member

Barbara Scotto | Member

Beth Jackson Stram | Member

Brookline Building Commission

Janet Fierman | Chair

Nathan Peck

George Cole

Kenneth Kaplan

Karen Breslawski

Acknowledgment

Public Schools of Brookline Senior Leadership

Andrew Bott | Superintendent of Schools

Nicole Gittens | Deputy Superintendent of Schools for Teaching and Learning

Ben Lummis | Special Assistant to the Superintendent for Strategy and Performance

Sarah Baker | Planning Specialist

Brookline High School Educators

Anthony Meyer | Brookline High School Headmaster

Hal Mason | Brookline High School Assistant Headmaster

Jenee Ramos | Dean of Faculty

Owner's Project Management

Ray Masak | Project Manager, Building Department

Project Directory

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Pip Lewis, Project Principal

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David Stephen, Educational Planner

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MEP Engineers

Garcia Galuska DeSousa Consulting Engineers

Carlos DeSousa, Project Principal

Chris Garcia, Project Principal

Dom Puniello, Project Principal

Landscape Architects

Halvorson Design Partnership, Inc.

Chuck Kozlowski, Project Principal

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Nobis Engineering, Inc.

Ting Chang, Project Manager

Hazardous Materials

Universal Environmental Consultants

Geotechnical & Geoenvironmental Engineering

McPhail Associates, LLC

Scott Smith, Project Manager

Traffic Consultant

Howard/Stein-Hudson Associates

Elizabeth Peart, Project Manager

Cost Estimating

PM&C

Peter Bradley, President

1. Introduction

Project Overview

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1. Introduction | Project Overview

The Town of Brookline is experiencing unprecedented enrollment increase in its PK-12 school system. Enrollment growth at the Brookline High School is expected to increase the size of the student body from the current enrollment of 1,950 students in the 2016 – 2017 academic year to 2,700 students by the year 2023.

Facing this challenge, the Town of Brookline has been actively engaged in planning for the expansion of the Brookline High School, beginning, in 2013, with HMFH Architects High School Concept Study and the B-Space Committee Report, followed by the 2015 Symmes Maini & McKee Associates Further Study Report and, in 2016, the work of the Academic Standards Committee. In Fall of 2016, the Town of Brookline engaged HMFH Architects to conduct this Brookline High School Campus Expansion Feasibility Study.

This report is a summary of the process, analysis, collaboration, priorities, and conclusions of the Feasibility Study. This study establishes a path to the realization of a Brookline High School that carries the BHS tradition of excellence and innovation forward into the 21st Century.

Project Location

Brookline High School is a unique urban campus. It is centrally located in the Town of Brookline, within a residential neighborhood, yet near commercial and civic activity. The campus is accessible by the MBTA Green Line with a station adjacent to the campus. Brookline High School is comprised of four buildings that border two edges of an historically significant open space used by both the school and the larger community.

The main academic building fills a site bordered by Greenough Street, Lowell Road, Welland Road, and Tappan Street. This building was constructed through a series of construction projects dating from 1922 to 1996. The Greenough building houses the administrative offices, academic classrooms, the Cafeteria, the Auditorium and performance classrooms, the Library, and the Schluntz Gym and associated locker rooms. The building volume surrounds a large outdoor courtyard.

The Tappan Gym and the Evelyn Kirrane Aquatics Center are adjoined buildings on the corner of Sumner Road and Tappan Street. The Kirrane Pool, constructed in 1956, is a community resource operated by the Brookline Recreation Department. Tappan Gym, completed in 1968, is the athletic facility for Brookline High School, containing dance studios, fitness/ training rooms, a wrestling room, locker rooms, a basketball gym, a climbing gym, and a large indoor tennis and playing field. Tappan Gym is also used extensively for Town-wide recreational athletic programs operated by the Brookline Recreation Department and Brookline Adult and Community Education.

The circa 1900 Unified Arts Building is south-east of the Tappan Gym/ Kirrane Pool complex on Tappan Street. The Unified Arts Building (UAB) is the home of the Consumer Education and Visual Arts programs. Brookline's public media center, Brookline Interactive Group (BIG), occupies the top floor of the UAB.

1. Introduction | Project Overview

Process

The BHS Campus Expansion Feasibility Study continues the Town of Brookline's educational planning and visioning process that has involved more than 100 educators, residents, students and alumni over several years. These efforts are distilled and summarized in the Brookline High School Education Plan, which became a basis for the Feasibility Study.

As stated in the BHS Ed Plan;

“Three questions propel us in developing this Education Plan and therefore the anticipated expansion and renovation of Brookline High School:

1. How will we more deeply engage all students at BHS so their education is personally meaningful, positively impacts themselves and others, and prepares them for the changes and challenges ahead?
2. How do we better serve all students so they are connected to BHS, feel supported to be full, thriving members of our community who share their talents and passion, and have the support needed to excel academically?
3. How do we accommodate growth and expansion and still retain the essential unity, feel, and cohesion of the Brookline High School campus?”

Analysis

In the initial phase of the project, HMFH Architects and its consultant team conducted site visits of the campus, reviewed existing documentation of each of the campus buildings, and met with the appropriate Town of Brookline officials and Departments. The existing conditions of the campus, both buildings and site, were analyzed and documented.

The findings of these investigations may be found in 2. Evaluation of Existing Conditions.

In a parallel effort, HMFH and its educational planner, David Stephen, of New Vista Design, attended a series of meetings with the Brookline High School educators to come to an understanding of the educational program for the High School, both at present and in the future. These discussions included the educators' assessment of the adequacy, or deficiencies, of the existing facilities to support the current curriculum. HMFH worked with the educators to refine its analysis of the school scheduling as it relates to the utilization of the school facilities. This analysis served as the starting point for projecting the physical spaces, in quantity and size, that will be required to support the educational program for the expanded student enrollment, an effort summarized in a document referred to as a Space Summary. HMFH Architects developed three levels of educational programs around the following guiding statements:

- Enrollment Accommodation – the measures required to accommodate the growth to 2,700 students plus improvements to the Science Department
- Massachusetts High School Standards – the BHS expansion planned to generally conform to standards currently use for other Massachusetts High Schools
- BHS Education Plan – the BHS expansion planned to accommodate the goals set forth in the Ed Plan.

Most importantly, these meetings with the BHS faculty furthered the discussion about the best way to translate the educators' vision for 21st Century learning into physical space. The educators shared the Guiding Principles for the campus expansion design, as follows:

- Big School, Small Feel
- Allows for Integration between Disciplines & Departments
- Use of the Entire Building/Campus for Teaching & Learning
- Allows for self-directed, hands-on and experiential learning
- Flexible learning spaces – allow for performance, presentation, collaboration, socializing, independent and group study
- Green/Sustainable

Refer to Volume 1 section 3. Educational Program of this report for detailed discussion.

1. Introduction | Project Overview

Development and Evaluation of Alternatives

The Brookline High School Building Committee directed HMFH Architects to first study the capacity of the existing campus to accommodate the future facilities required for the enrollment growth.

HMFH Architects proposed a wide range of preliminary building massing studies, testing potential locations for campus additions. At the same time, the existing school facilities were analyzed for opportunities to reconfigure space more efficiently and more supportive of the educational plan. As HMFH and its consultant team discovered more detail about the existing conditions of the campus, this knowledge informed which options were most promising for further development.

HMFH Architects developed campus expansion options for each of the three levels of educational programs – Enrollment Accommodation, Massachusetts High School Standards, and the BHS Education Plan. These options addressed both the academic buildings and the athletic facilities at the Tappan Gym. HMFH produced floor plans, building massing, and preliminary order of magnitude costs for each option.

As an alternative path, HMFH Architects studied an adjacent property bordered by Tappan Street, Cypress Street, and Brington Road. Development of this site for BHS programming offers the opportunity to construct a free-standing building with the capacity to house the student enrollment increase. This provides greater flexibility in the phasing and scope of improvements to the existing Brookline High School campus buildings. HMFH developed a proposal, Option 4, as a 9th Grade academic building on this site. Option 4 also proposed improvements to the existing Science Department at the Greenough building.

Options for Cypress Field, referred to as Cypress Street Playground, were also included in HMFH Architects’ development of alternatives. As Cypress Field is a community resource maintained by Brookline Parks and Open Space, with programs managed by the Brookline Recreation Department, HMFH met with both departments for research and review of alternatives. Several options for the development of Cypress Field included proposals for underground parking beneath athletic fields. HMFH also studied the potential realignment of Greenough Street to provide a larger student gathering area in front of the High School and safer pedestrian travel to Tappan Gym.

Volume 1 section 4. Development and Evaluation of Alternatives of this report includes detailed descriptions and illustrations of all options.

Community Engagement

The Feasibility Study process was inclusive and transparent. HMFH engaged with representatives of Town Departments, Brookline High School educators, and appointed and elected Town Committees throughout the study. Meetings were open to the public, and made available on the Brookline Public Schools’ website. The BHS Building Committee hosted two community meetings and two public hearings to solicit comments and questions from the Brookline community at large.

A list of meetings follows this narrative on page 6.

1. Introduction | Project Overview

Preferred Solution

On May 3, 2017, the Brookline High School Building Committee voted to select Option 4D as the Preferred Solution.

Option 4D proposes a 9th Grade academic building on the Cypress Street site. The 9th Grade building offers a small school environment for students making the transition from Brookline elementary schools to the single High School. The building includes the academic, administrative, and community spaces necessary to support the 9th grade enrollment. Students travel to the larger campus for arts and consumer education, athletics, and advanced classes.

The building spans the MBTA Green Line and places an entrance on Tappan Street. The volume of the building extends the BHS campus to Cypress Street. Site development enhances a pedestrian path connecting all the BHS buildings, and reinforcing the concept of a unified campus.

Option 4D addresses the priority for a transformation of the Science Department with the new construction of a STEM Wing addition to the Roberts Wing of the Greenough Building. Science classrooms/ labs on each of the three floors of the addition encourage collaboration between the Science Department, while distributing Science within the school to encourage an interdisciplinary curriculum.

With the Science Department relocated to new facilities at the 9th Grade building and the new STEM Wing, the existing Science classrooms/labs are renovated into classrooms and collaborative space.

Refer to 5. Preferred Solution for a project description of Option 4D

Next Steps

Town Meeting approved funding for the Schematic Design phase of the BHS Campus Expansion project on May 23, 2017.



1. Introduction | List of Meetings

Brookline High School Building Committee

2016
December 7

2017
January 11
February 2
March 1
March 13
April 13
April 26 – Joint BHS BC/ Recreation
April 26 – Public Hearing
May 3

Brookline School Committee

2017
February 2
February 15
March 2
March 16
April 27 – Public Hearing

Brookline Board of Selectmen

2017
April 4

Brookline Building Commission

2016
December 13

2017
January 10
May 9

Brookline Community Presentations

2017
January 12
March 15

Brookline High School Working Group

2016
November 30
December 7
December 14
December 21
continues

2017
January 4
January 11
January 18
January 25
February 1
February 15

Brookline High School Faculty and Administrators

2016
December 22
2017
January 17
January 27
February 7
February 7 – Faculty Meeting
February 14 – Faculty Meeting
March 21 – Faculty Meeting
March 27

Recreation Department and Parks & Open Space

2017
January 17 – Parks & Open Space
January 26 – Recreation and Tour of Tappan Gym
March 28 – Parks & Open Space
March 31 – Recreation
April 4 – Parks and Recreation Commission
April 26 – Joint BHS BC/ Recreation

Transportation

2016
December 13 – Town of Brookline
Engineering and Transportation Department

2017
May 1 – Brookline Transportation Board

Building Department

2016
December 14 – Town of Brookline Building Department
December 28 – Tour of Brookline High School

2. Evaluation of Existing Conditions

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Campus Site Plan and Site Analysis	2.9 - 2.10
Building Code and Accessibility Narrative	2.11 - 2.26
Building Systems Narratives - Appendix A	2.27
Existing Floor Plans with Current Education Occupancy	2.29 - 2.38
Transportation/Traffic Conditions	2.39 - 2.46

2. Evaluation of Existing Conditions Summary

Brookline High School occupies a campus comprised of three distinct buildings, constructed over a span of almost one-hundred years.

The main academic building at 115 Greenough Street is an assemblage of six distinct construction projects, completed from 1922 through 1996.

The Tappan Gym opened in 1968, adjacent to the Evelyn Kirrane Aquatics Center, constructed in 1966.

The Unified Arts Building dates from 1901, with an interior expansion renovation that inserted a Third Floor structure, between the Second Floor and attic structure, adding a floor of space occupied by the Brookline Interactive Group.

Construction methods and structural systems vary from building to building on the campus, and even within a single building.

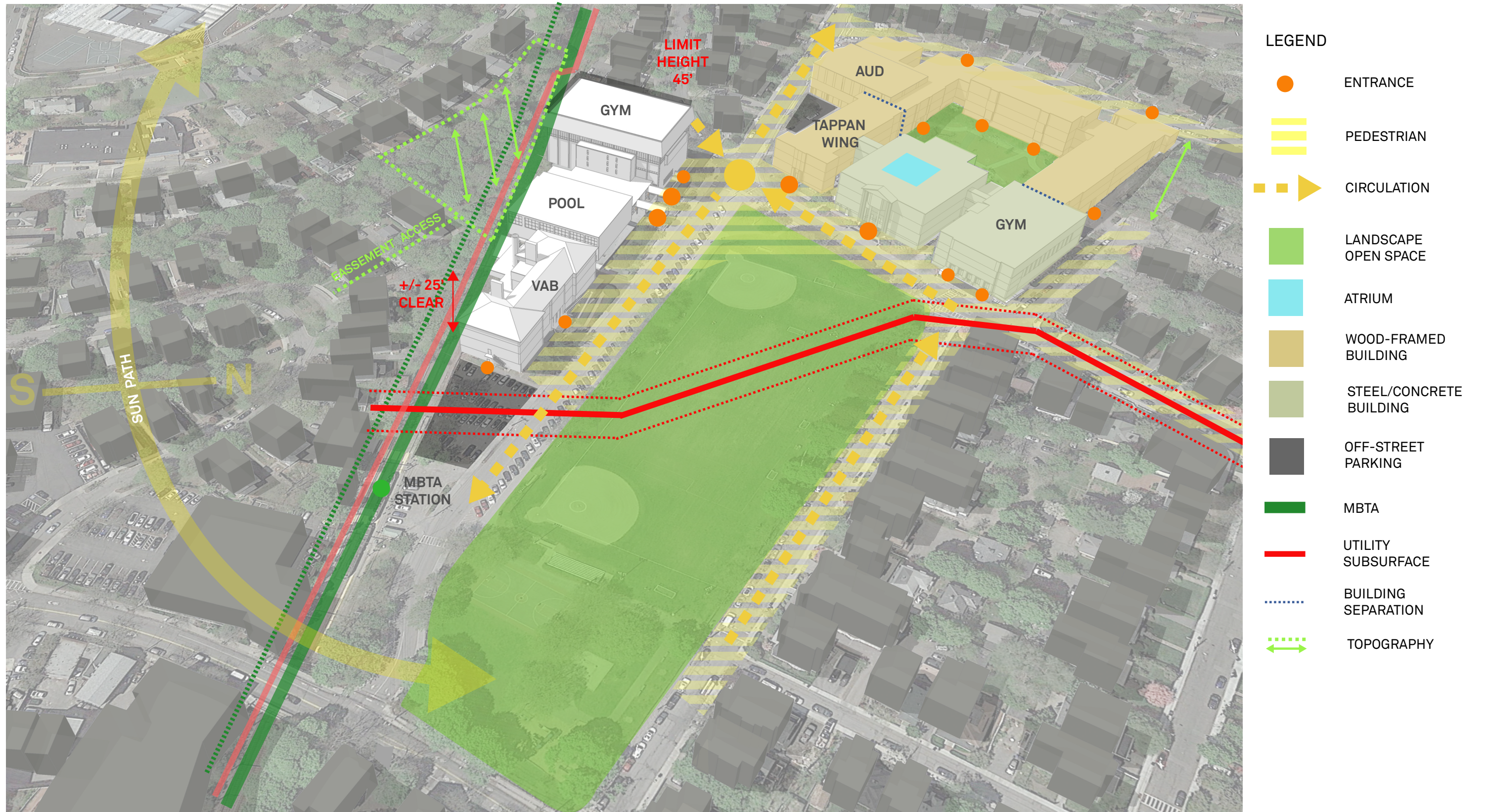
The complexity of the campus facilities has a significant impact on the feasibility of campus expansion alternatives with respect to achieving compliance to building codes and accessibility regulations.

2. Evaluation of Existing Conditions
BHS Campus Site Plan

Preliminary Campus Site Plan
for Options 1, 2 and 3



2. Evaluation of Existing Conditions BHS Campus Site Plan - Features



- LEGEND**
- ENTRANCE
 - ▬ PEDESTRIAN
 - ▶ CIRCULATION
 - LANDSCAPE OPEN SPACE
 - ATRIUM
 - WOOD-FRAMED BUILDING
 - STEEL/CONCRETE BUILDING
 - OFF-STREET PARKING
 - ▬ MBTA
 - ▬ UTILITY SUBSURFACE
 - ⋯ BUILDING SEPARATION
 - ↔ TOPOGRAPHY

2. Evaluation of Existing Conditions Building Code and Accessibility Narrative

If the cost of proposed renovations to any of the buildings exceeds 30% of the building's assessed value (not including the land value) full compliance with the Massachusetts Architectural Access Board regulations is required. Compliance will be determined for each building on the Brookline High School campus individually based on its assessed value, and the cost of any renovations and additions to that building. Additions to the buildings can be treated as a separate building in determining compliance if the addition is separated from the building by fire walls.

The Town of Brookline has completed projects to create a more accessible campus. Some of the major projects have included: accessible ramps and lifts at the 115 Greenough Street building; an exterior ramp and accessibility compliance associated with the 1996 Greenough Street addition; and an exterior ramp and new elevator at the Unified Arts Building.

At the main academic building, full compliance with current accessibility regulations has not yet been achieved. The existing building has four main floor levels as well as a basement level. However, as the building was enlarged over time, and as portions of the building were combined, alignment of floor levels was not maintained, resulting in 18 distinct floor levels. Wheelchair access has been accommodated by a combination of elevators, ramps, and wheelchair lifts. However, these ramps were constructed under accessibility regulations that have been subsequently revised. If full accessibility compliance is triggered, it might be possible to appeal for a variance as an existing condition. If such an appeal is unsuccessful, existing ramps would need to be reconstructed to accomplish the shallower slope of the current regulations.

The classroom wings of the main academic building are wood-framed floor and roof joists supported by interior and perimeter unreinforced masonry bearing walls. The corridor walls are an assembly of double walls that define a zone for mechanical shafts and built-in classroom casework. Doors to the classroom are deeply recessed within the thickened wall. Current accessibility standards for clearances at doorways are not met in the existing condition. If full accessibility compliance is triggered, a variance might be granted for relief from the current regulations as an existing condition. If relief is not granted, the doorway could be modified to achieve compliance but at a loss of the historic character of the building. Another compliance alternative that might be granted would be the installation of automatic door openings to allow one accessible entrance into each room.



Photo of Roberts Wing at cafeteria

2. Evaluation of Existing Conditions

Building Code and Accessibility Narrative

Preliminary Code Review

Brookline High School

HASTINGS CONSULTING

Building, Fire & Access Codes • Fire Protection Engineering

Date: May 12, 2017

Prepared by: Kevin S. Hastings, P.E., LEED AP

The proposed project scope includes potential renovations and additions to Brookline High School, the Tappan Gym building, and Unified Arts Building. This preliminary code review contains a summary and analysis of the most significant code requirements impacting this work.

780 CMR: Massachusetts State Building Code

Based on our understanding that any proposed work would likely seek a building permit in 2018 it is expected the 9th Edition of 780 CMR will be in effect. This code adopts and amends the 2015 editions of the International Building Code (IBC) and International Existing Building Code (IEBC). These codes provide the basis for this review.

The IEBC has various requirements to address existing building conditions within the work area, but also allows many non-compliant existing conditions to remain regardless of the level of renovation. The IEBC does not contain an overall cost threshold that would trigger compliance with the requirements for new construction. A detailed review of the existing buildings is required to determine all implications of the IEBC. At this stage in the project the most significant issue is the proposed additions to the existing buildings. IEBC Section 1102 states that no addition shall increase the height or area of the existing building beyond the maximum allowed by the IBC.

Brookline High School Main Building

It is our understanding that the majority of various buildings that make up Brookline High School are constructed of masonry exterior walls with wood framed interior areas in at least portions of the buildings. This construction likely means the buildings must be classified as Type IIIA (1 hour) or Type IIB (0 hour) construction. The maximum allowed buildings sizes from IBC Chapter 5 for these construction types and the existing building uses are summarized in the table below. Note that this table assumes the building is or will be protected throughout by an automatic sprinkler system. Although the building is primarily an educational occupancy (Use Group E), the more restrictive limitations for an assembly use are also listed as the gymnasium (Use Group A-4) and auditorium (Use Group A-1) may be considered as assembly uses if they are used for non-school events (IBC Section 303.1.3).

2. Evaluation of Existing Conditions Building Code and Accessibility Narrative

Brookline High School: Height and Area Limits

	Use Group E (Educational)		Use Group A-1 & A-4 (Assembly)	
	Type IIIA (1 hour)	Type IIIB (0 hour)	Type IIIA (1 hour)	Type IIIB (0 hour)
IBC Table 504.3 Max. Height in Feet	85 ft.	75 ft.	85 ft.	75 ft.
IBC Table 504.4 Max. # of Stories	4	3	3	2
IBC Table 506.2 Max. Building Area Per Story	70,500 ft ²	43,500 ft ²	42,000 ft ²	25,500 ft ² Note a
IBC Section 506.3 Max. Building Area Per Story With Frontage Increase (max. of 75% frontage assumed)	82,250 ft ²	50,750 ft ²	49,000 ft ²	29,750 ft ² Note b

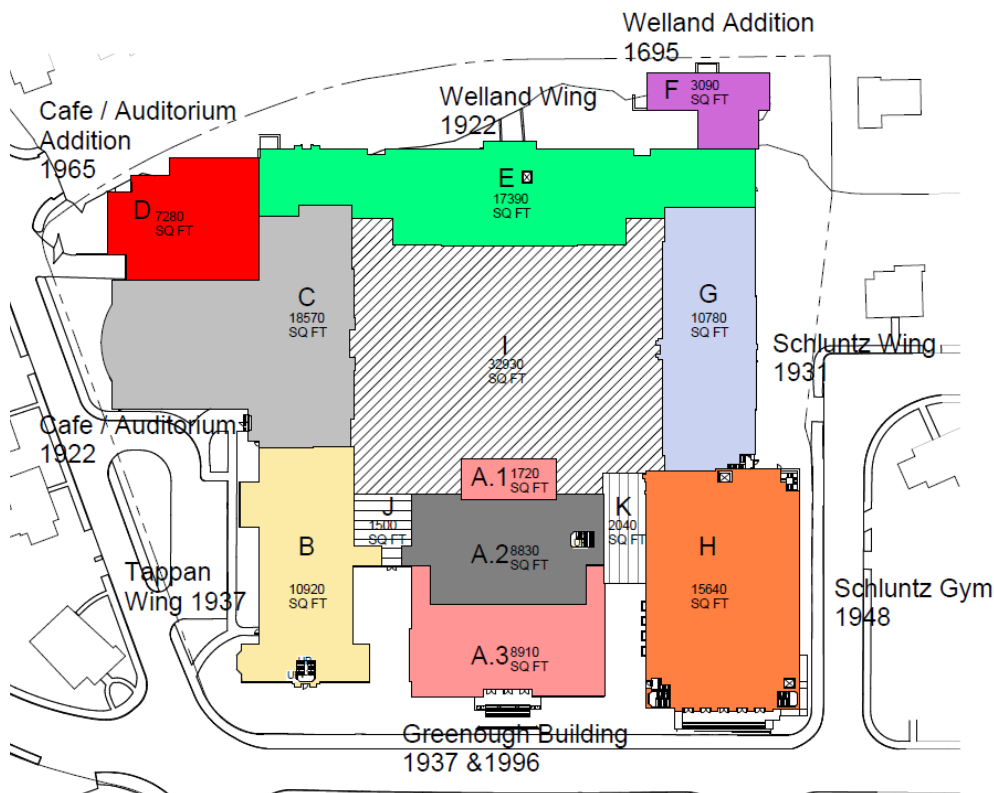
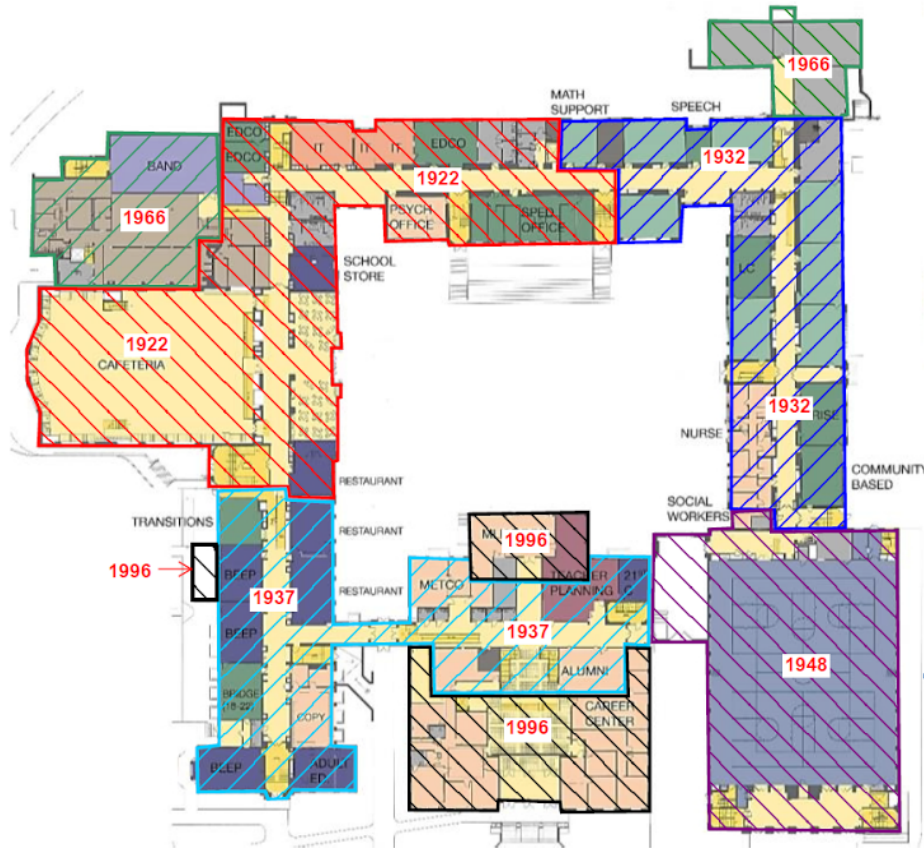
Note a: Maximum allowed area for Use Group A-1 is 25,500 ft² and for Use Group A-4 is 28,500 ft².

Note b: Maximum allowed area for Use Group A-1 is 29,750 ft² and for Use Group A-4 is 33,250 ft².

The total footprint area of the existing main high school building is approximately 107,000 sqft. Since the existing area exceeds the maximum allowed, any addition must either be separated from the existing building by a firewall or the existing building must be evaluated to determine whether existing building separations can potentially be treated as fire walls. Since the overall building was constructed as a number of separate buildings/additions over time, potential existing firewall locations would likely occur along a line between construction phases where a structural separation is presumed to exist. Even if the existing walls do not comply with all current code requirements for a firewall, improvements could be made (i.e. adding fire rated doors) and the separation may be approved by the building official as a compliance alternative to allow the existing wall to be considered as a fire wall.

The following diagrams show the building construction dates and potential fire wall locations, as well as the approximate area of the various building segments.

2. Evaluation of Existing Conditions Building Code and Accessibility Narrative



2. Evaluation of Existing Conditions Building Code and Accessibility Narrative

The existing building will require further evaluation to determine whether any or all of the walls separating the different buildings could potentially be treated as fire walls. The final location and size of the addition(s) will also dictate where fire walls may be required. In addition to the allowed area limitations, the impact on exterior wall fire ratings and openings limitations will need to be considered when choosing fire wall locations. If necessary additional sprinkler protection at window openings could potentially be proposed as a compliance alternative to the building official in lieu of eliminating new or existing windows.

Tappan Gym

It is our understanding that one design option under consideration is a vertical addition to the existing Tappan Gym building. Based on the structural analysis prepared by Foley Buhl Roberts & Associates this building is primarily of concrete construction with steel framed roof structure. To comply with the height and area limits it is likely that the building would have to be classified as Type IB construction (2 hour fire rated). This would require further evaluation of the existing building structure to determine if the concrete achieves the necessary fire ratings and potential addition of fireproofing to any unprotected steel structure that exists.

Unified Arts Building

Any additions to this building would also have to comply with the maximum allowed height and area. It is our understanding that the building is constructed with masonry exterior walls and at least partial wood framed interior and is therefore presumably Type IIIA or IIIB construction. The height and area limitations summarized above for the main school would also apply to the Unified Arts Building. This building is much smaller in area however and could potentially accommodate an addition expanding the area of the building without requiring a fire wall. Based on the Foley Buhl Roberts & Associates report it appears any vertical additions would not be permitted due to structural limitations.

Sprinkler Protection

Although 780 CMR only requires sprinkler protection within the work area, there is a separate Massachusetts General Law (MGL) which requires sprinkler protection throughout any existing building to which an addition is constructed, regardless of whether the addition is separated by a fire wall (MGL Chapter 148 Section 26G). Any portions of the existing buildings that are not provided with sprinkler protection must be protected if an addition of any size is constructed.

2. Evaluation of Existing Conditions

Building Code and Accessibility Narrative

Based on the Town of Brookline Assessor's information (attached) the main High School building (115 Greenough Street) has an assessed value of \$76,758,200. Therefore full compliance with 521 CMR is required if the cost of renovations and/or additions to this building exceed \$23,027,460. The High School could also potentially be treated as separate buildings for the purposes of determining MAAB compliance if firewalls are established as discussed above. In addition to firewalls establishing separate buildings, 521 CMR also requires that each building cannot be dependent on the attached building for accessible elements (i.e. entrance, toilet rooms, etc.) if they are to be considered separate buildings (521 CMR 5.00).

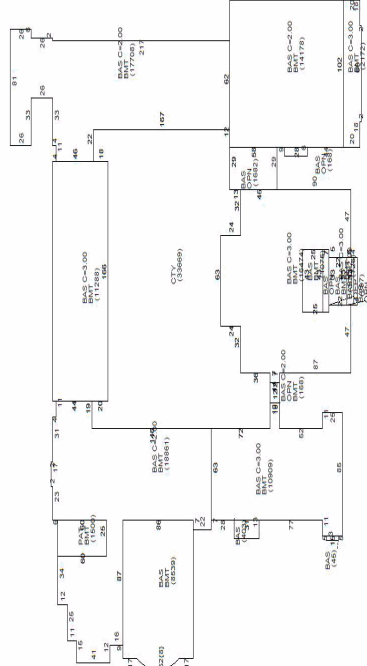
The Tappan Gym (46-68 Tappan Street) has an assessed building value of \$12,537,500 and would have to be brought into full compliance with 521 CMR if the cost of renovations and/or additions exceeds \$3,761,250. Tappan Gym and the attached Aquatics Center may also be considered a single building as defined by 521 CMR, in which case the combined assessed value would be \$16,284,000 and the full compliance threshold would increase to \$4,885,200.

The Unified Arts Building is also on the 46-68 Tappan Street parcel. This building has an assessed building value of \$4,470,00 and would have to be brought into full compliance with 521 CMR if the cost of renovations and/or additions exceeds \$1,341,000.

If full compliance is required for any of the buildings variances can be requested to allow existing non-compliant individual elements to remain where full compliance is technologically infeasible or full compliance would result in excessive and unreasonable costs without any substantial benefit to persons with disabilities (521 CMR 4.1).

2. Evaluation of Existing Conditions Building Code and Accessibility Narrative

Exterior Information		Bath Features (Rating)		Condo Information		Other Features (Rating)		Depreciation		Acct #	
Bld Type	XI21INST-SCHOOL	Full Bath	0	Location		Kitchens	2	PhysCond	Good	48	9,371
Sty Ht	3	Addtl	0	Tot Units		Ad Kit	0	Func		0	
Liv Units	0	3/4 Bath	0	Floor Level		Frlps	0	Econ		0	Bldg Sequence
Foundation	CN CONCRETE	Addtl	0	Num Floors	0	WSFlue	0	Spec	G	0	1
Frame	MS MASONRY	1/2 Bath	50	% Own	0			OV	Good	0	
Wall	BK BRICK	Addtl	0	Name							
Wall2		Othr Fix	24								
RoofStruct	F FLAT										
Roof Cover	RB RUBBER										
Color											
ViewCode	A AVERAGE										



General Information	
Grade	B+ V
Year Bld	1922
EF Yr Bld	1972
Alt LUC	0 %
Jurisdct	Fact 1.00
Constr Mod	
Lump Sum Adj	0.00
Commercial Un	0
Interior Information	
Avg Ht/Ft	18.00
Prime Wall	1 DRYWALL
Sec Wall	0%
Partition	T TYPICAL
Prime Fl	VN VINYL
Sec Floors	CP CARPET
Bsmt Floor	VN VINYL
Subfloor	
Bsmnt Gar	0
Electric	AV
Insulation	AV Average
Int vs Ext	
Heat Fuel	G GAS
Heat Type	FA FORCED AIR
Sec Ht Type	
# Heat Sys	0
% Heated	100 % A/C
% Sprinkled	100 % Ctrl Vac

Calculation	
Basic \$/SQ	314.31
Size Adj	0.76
Const Adj	1.14
Adj \$/SQ	238.190
Other Feat	2,694,689
Grade Fact	2.00
NBHD Infl	1.00
LUC Factor	1.00
Adj Total	147,399,763
Depreciatio	70,751,886
Dep Total	76,647,877
% Sprinkled	100 % Ctrl Vac

Alternate Area Detail - First 10 Lines			
SubArea	%	AltType	%
BMT	100	I21	85
BMT	100	I21	85
BMT	100	I21	85
BMT	100	I21	85
BMT	100	I21	85
BMT	100	I21	85


Sub Area Detail - 1st 10 Lines Displayed			
Code Desc.	F.Area	area	Appr.Val
BAS BASE AREA	239,777	239,777	67,541,347.00
BMT BASEMENT	88,314	103,899	5,853,337.00
CTY COURTYARD	0	33,669	406,135.00
OPN OPEN AREA	0	2,451	0.00
OFF OPEN PORCH	0	429	26,204.00
PAT PATIO	0	1,500	18,378.00
Total	328,091	381,725	73,845,401.00

Special Features / Yard Items (1st 6 Lines Displayed)																						
Code	SF/Desc	A	Y/S	Qty	Size	Qual	Con	Year	Unit Price	Adj UP	D/S	Dep%	LUC	NB	N.Fact	Juris	J.Fact	UnpdValue	Apprsd Value	Assd Value		
AS	PAVING-ASPHT	D	N	1	6,000	A	A	1980	2.80	2.71	0	84	934	1.00	304	1.00	1.00	16,240	2,600	2,600		
ELVP	ELEVATR PSGF	D	Y	3	3	A	A	1950	40,525.00	121,575.00	0	84	934	1.00	304	1.00	1.00	364,725	58,400	58,400		
RW	RETAING-WALL	D	N	1	1,100	V	A	1922	15.55	12.72	0	84	934	1.00	304	1.00	1.00	13,995	2,200	2,200		
LD	LOADING-DOCK	D	N	1	1,000	A	A	1970	17.95	15.08	0	72	934	1.00	304	1.00	1.00	15,078	4,200	4,200		
PARK	PARKING LOT	D	N	1	17	A	A	1922	2,500.00	2,500.00	0	0	934	1.00	304	1.00	1.00	42,500	42,500	42,500		
ELVP	ELEVATR PSGF	D	Y	2	4	A	A	1940	40,525.00	81,050.00	0	84	934	1.00	304	1.00	1.00	324,200	51,900	51,900		
Total Sp. Features: 110,300																			Total Appraised: 161,800		Total Assessed Value: 161,800	

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

2. Evaluation of Existing Conditions

Building Code and Accessibility Narrative



Patriot PROPERTIES INC.

User Acct	99936034
GIS Ref	
GIS Ref	
Insp Date	

COMMERCIAL
TOWN OF BROOKLINE
PROPERTY ID: 9371

TOTAL ASSESSED: 86,394,900

Parcel ID	202-09-00
Building Value	76,758,200
Land Value	9,585,200
Total Value	86,394,900

IN PROCESS APPRAISAL SUMMARY

Use Code	Building Value	Yard Items	Land Size	Land Value	Total Value
934	76,758,200	51,500	207,267	9,585,200	86,394,900

PREVIOUS ASSESSMENTS

Tax Yr	Cat	Use	Blgd Value	Yard Items	Land Size	Land Value	Total Value	Total Assess'd	Notes	Date
2017	FV	934	76,758,200	51,500	207,267	9,585,200	86,394,900	86,394,900		12/28/2016
2016	FV	934	76,758,200	51,500	207,267	9,585,200	86,394,900	86,394,900		12/30/2015
2015	FV	934	79,706,200	51,800	207,267	9,958,100	88,716,100	88,716,100		01/26/2015
2014	FV	934	87,851,900	0	207,267	8,141,500	95,993,400	95,993,400	Year End Roll	12/31/2013
2013	FV	934	47,691,000	0	207,267	7,904,400	55,595,400	55,595,400	Year End Roll	12/18/2012
2012	FV	934	47,939,900	0	207,267	7,904,400	55,844,300	55,844,300	Year End Roll	12/15/2011

BUILDING PERMITS

Date	Number	Description	Amount	Closed	Status	Federal ID	Notes	Last Visit
09/03/2015	1040		0		C		REPL LIGHTING F	
01/12/2015	46		0		C		INST NEW H&C/AR	
08/22/2013	964				C		INSTALL RECEIPT	

SALES INFORMATION

Grantor	Legal Ref	Type	Date	Price	1st	Notes
	1489-465		06/09/1921	1	N	

INCOME INFORMATION

Bldg	Alt Type	Description	Gross Income	Vacancy	Adj	Expenses	Adj	Reserves	Adj	NOI	Other Income	Cap Rate	Adj	Leased Area	GRM Inc Value
Totals															

PROPERTY FACTORS

Item	Code	%
BRKL		100
Districts	T-6	100
Zoning	SWR	
Utilities	WTR	
Census		
Flood Haz		
Topo		
Street	1	
Traffic M		
Exmpt		

LEGAL DESCRIPTION

BROOKLINE HIGH SCHOOL

Lot Size	
Total Land	
Land Unit Type	SF

PRINT

Date: 2017-03-01 08:44:56

Plate Time: 2016-08-03 08:10:12

Calculation

USER DEFINED

Leased Pk	
Tenant Pk	
Cust Pk	
Pk Nbrhd	4
Prior D2b	
Assoc Par 1	
Prior D1c	
Prior D2c	
Assoc Par 2	
ASR Map	40

ACTIVITIES

Date	Result	Bv
08/02/2016	EXTERIOR	Robert
02/18/2014	PARTIAL INSP	BOB
08/25/2008	EXTERIOR	PDB
12/19/2006	EXTERIOR	PJA
12/28/2005		

LAND SECTION

LUC - Fact	Description	Unit Type	Land Type-Fact	Base Value	Unit Price Adj	Neigh Mod-Influence	Influence 1 %	Influence 2 %	Influence 3 %	Appraised Value	Special Land Adj - Factor	Assessed Value	Notes
934-1.00		SO FT		108.78	108.78	304				692,500		692,500	
TOWN OF BROOK		P-1.00		892.25	892.25	3-1,000,000				8,846,000		8,846,000	
TOWN OF BROOK		SO FT		108.78	108.78	304				692,500		692,500	
TOWN OF BROOK		S-1.00		46.56	46.56	3-1,000,000				46,700		46,700	
TOWN OF BROOK		RESID SQFT		6.00	6.00	304				46,700		46,700	
TOWN OF BROOK		R-1.00		6.43	6.43	3-1,000,000				46,700		46,700	
Total ACHA		Total SF/SM	207,267	Parcel LUC: 934		TOWN OF BROOK Prime NE Desc: 804				9,585,200	0 Total	9,585,200.00	

NARRATIVE DESCRIPTION

This Parcel contains 207,267 SF of land mainly classified as TOWN OF BROOKLINE. It has 1 building(s) with a total of 328,091 square feet.

PROPERTY FACTORS

Code	%	
BRKL	100	
Districts	T-6	100
Zoning	SWR	
Utilities	WTR	
Census		
Flood Haz		
Topo		
Street	1	
Traffic M		
Exmpt		

LAND SECTION

LUC - Fact	Description	Unit Type	Land Type-Fact	Base Value	Unit Price Adj	Neigh Mod-Influence	Influence 1 %	Influence 2 %	Influence 3 %	Appraised Value	Special Land Adj - Factor	Assessed Value	Notes
934-1.00		SO FT		108.78	108.78	304				692,500		692,500	
TOWN OF BROOK		P-1.00		892.25	892.25	3-1,000,000				8,846,000		8,846,000	
TOWN OF BROOK		SO FT		108.78	108.78	304				692,500		692,500	
TOWN OF BROOK		S-1.00		46.56	46.56	3-1,000,000				46,700		46,700	
TOWN OF BROOK		RESID SQFT		6.00	6.00	304				46,700		46,700	
TOWN OF BROOK		R-1.00		6.43	6.43	3-1,000,000				46,700		46,700	
Total ACHA		Total SF/SM	207,267	Parcel LUC: 934		TOWN OF BROOK Prime NE Desc: 804				9,585,200	0 Total	9,585,200.00	

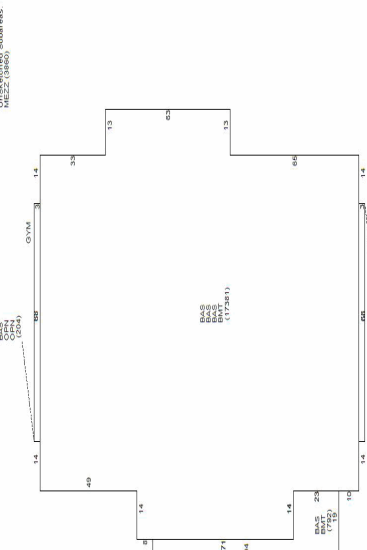
Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

2. Evaluation of Existing Conditions Building Code and Accessibility Narrative

Exterior Information		Bath Features (Rating)		Condo Information		Other Features (Rating)		Depreciation		Acct #	
Bid Type	X122 INST-GYM	Full Bath	0	Location		Kitchens	0	PhysCond	Average	44	%
Sty Ht	3	Addtl	0	Tot Units		Ad Kit	0	Func	0	0	9,159
Liv Units	0	3/4 Bath	0	Floor Level		Frlps	0	Econ	0	0	Bldg Sequence
Foundation	CN CONCRETE	Addtl	0	Num Floors	0	WSFlue	0	Spec	A	0	1
Frame	FP FIREPF STL	1/2 Bath	18	% Own	0			OV	Average	0	
Wall	BK BRICK	Addtl	0	Name							
Wall2	21 CONC BLOCK	Othr Fix	12								
RoofStruct	F FLAT										
Roof Cover	RB RUBBER										
Color											
ViewCode	A AVERAGE										

General Information	
Grade	C A
Year Bt	1968
Eff Yr Bt	1976
Alt LUC	0 %
Jurisdct	Fact
Constr Mod	
Lump Sum Adj	0.00
Commercial Un	0
Avg Ht/Fl	22.00

Interior Information	
Prime Wall	10 CONC BLOCK
Sec Wall	1 DRYWALL 15%
Partition	T TYPICAL
Prime Fl	VN VINYL
Sec Floors	CP CARPET 20%
Bsmnt Floor	CN CONCRETE
Subfloor	
Bsmnt Gar	0
Electric	AV
Insulation	AV Average
Int vs Ext	
Heat Fuel	O OIL
Heat Type	FA FORCED AIR
Sec Ht Type	
# Heat Sys	0
% Heated	100 % A/C 100
% Sprinkled	100 % Ctrl Vac 0



Calculation	
Basic \$/SQ	290.80
Size Adj	0.78
Const Adj	1.28
Adj \$/SQ	227,632
Other Feat	980,451
Grade Fact	1.00
NBHD Infl	1.00
LUC Factor	1.00
Adj Total	22,330,584
Depreciatio	9,825,457
Dep Total	12,505,127

Alternate Area Detail - First 10 Lines			
SubArea	%	AltType	%
BMT	100	B01	75
BMT	100	B01	75

Sub Area Detail - 1st 10 lines Displayed				
Code Desc.	F.Area	area	rate	Appr Val
BAS BASE AREA	53,343	53,343	292	8,724,142.00
BMT BASEMENT	13,630	18,173	256	2,600,638.00
MEZZ MEZZANINE	3,860	3,860	292	631,295.00
OPN OPEN AREA	0	816	0	0.00
Total	70,833	76,192		11,956,075.00

Special Features / Yard Items (1st 6 Lines Displayed)																								
Code	SF/Desc	A	Y/S	Qty	Size	Qual	Con	Year	Unit Price	Adj UP	D/S	Dep%	LUC	L.Fa	NB	N.Fact	Juris	J.Fact	UndepValue	Apprsd Value	Assd Value			
OHD	OVR-HEAD DR	M	N	2		1	A	1990	2,260.00	4,520.00	0	80	934	1.00	304	1.00	1.00	1.00	4,520	900	900			
LD	LOADING-DOCH	D	N	1	140	A	A	1970	17.95	19.49	0	72	934	1.00	304	1.00	1.00	1.00	2,728	800	800			
PARK	PARKING LOT	D	N	58		1	A	1970	2,500.00	145,000.00	0	0	934	1.00	304	1.00	1.00	1.00	145,000	145,000	145,000			
ELVP	ELEVATR PSGF	M	Y	5		1	A	1970	40,525.00	202,625.00	0	84	934	1.00	304	1.00	1.00	1.00	202,625	32,400	32,400			
																			Total Sp. Features:	32,400	Total Appraised:	179,100	Total Assessed Value:	179,100

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

2. Evaluation of Existing Conditions

Building Code and Accessibility Narrative

COMMERCIAL
TOWN OF BROOKLINE
 PROPERTY ID: 9169
 TOTAL ASSESSED: 25,845,500

Parcel ID
 194-10-11
TOWN OF BROOKLINE

194 BLOCK 10 LOT 11 SUBLOT SUFFIX CARD
PROPERTY LOCATION

No.	All No.	Direction/Street/City
46	46-68 TAPPAN ST.	BROOKLINE
OWNERSHIP		
Owner 1	TOWN OF BROOKLINE	
Owner 2	UNIFIED ARTS BLDG/IMPPOOL	
Owner 3		
Street 1	1333 WASHINGTON ST	
Street 2		
Town/City	BROOKLINE	
SI/Prev MA	Country:	Own Occ:
Postal 02445		Type:

IN PROCESS APPRAISAL SUMMARY

Use Code	Building Value	Yard Items	Land Size	Land Value	Total Value
934	12,537,500	146,700	109,679	4,944,800	17,629,000
934	3,746,500	0	0	0	3,746,500
934	4,470,000	0	0	0	4,470,000
Total Parcel:		Mkt Adj Cost		Total Value per SQ unit /Card:	Parcel:

PREVIOUS ASSESSMENTS

Tax Yr	Cat	Use	Bldg Value	Yard Items	Land Size	Land Value	Total Value	Total Asses'd	Date
2017 FV	934	934	20,754,000	146,700	109,679	4,944,800	25,845,500	25,845,500	12/28/2016
2016 FV	934	934	20,754,000	146,700	109,679	4,944,800	25,845,500	25,845,500	12/30/2015
2015 FV	931	931	21,573,100	146,700	109,679	4,621,400	26,341,200	26,341,200	01/26/2015
2014 FV	931	931	23,941,300	5,400	109,679	4,198,300	28,145,000	28,145,000	Year End Roll
2013 FV	931	931	19,562,000	5,400	109,679	4,076,100	23,643,500	23,643,500	Year End Roll
2012 FV	931	931	19,562,000	5,400	109,679	4,076,100	23,643,500	23,643,500	Year End Roll

LEGAL DESCRIPTION

Legal Description	Notes
BROOKLINE HIGH SCHOOL	
Lot Size	SF
Total Land	
Land Unit	

PRINT

Date	Time
2017-03-01	08:41:07

LAST REV

Date	Time
2016-01-28	16:51:33

TOWN BROOKLINE\HWG

ACTIVITIES

Date	Result	By
07/15/2014	PARTIAL INSP	Robert
08/25/2008	EXTERIOR	MM
11/30/2006	EXTERIOR	PJA
11/30/2005		
11/30/2005		

USER DEFINED

Leased Pk	
Tenant Pk	
Cust Pk	
Phx Nbrhd	4
Prior D2b	
Assoc Par 1	
Prior D1c	
Prior D2c	
Assoc Par 2	
ASR Map	
	38

BUILDING PERMITS

Date	Number	Description	Amount	Closed	Status	Federal ID	Notes	Last Visit
09/14/2015	1096		0		C		REPL LIGHTING F	
02/18/2014	158		0		C		MAKE ELECTRICA	
08/19/2013	1245				C		REPLACE ROOF A	

SALES INFORMATION

Grantor	Legal Ref	Type	Date	Price	Test	Verification	Notes
	1095-216		11/02/1908		I	N	

PROPERTY FACTORS

Code	%
BRKL	100
Districts	
T-6	100
Zoning	
SWR	
WTR	
Utilities	
Census	
Flood Hazz	
Topo	
Street 1	
Traffic M	
E-xmpt	

NARRATIVE DESCRIPTION

This Parcel contains 109,679 SF of land mainly classified as TOWN OF BROOKLINE. It has 3 building(s) with a total of 124,793 square feet.

PROPERTY FACTORS

Code	%
BRKL	100
Districts	
T-6	100
Zoning	
SWR	
WTR	
Utilities	
Census	
Flood Hazz	
Topo	
Street 1	
Traffic M	
E-xmpt	

INCOME INFORMATION

Bldg	All	Type	Description	Gross Income	Vacancy	Adj	Expenses	Adj	Reserves	Adj	NOI	Other Income	Cap Rate	Adj	Leased Area	GRM/Inc Value
Totals																
Surplus																
Deduction																
Val Per Sqr/Par																
Cost/Inc Ratio																

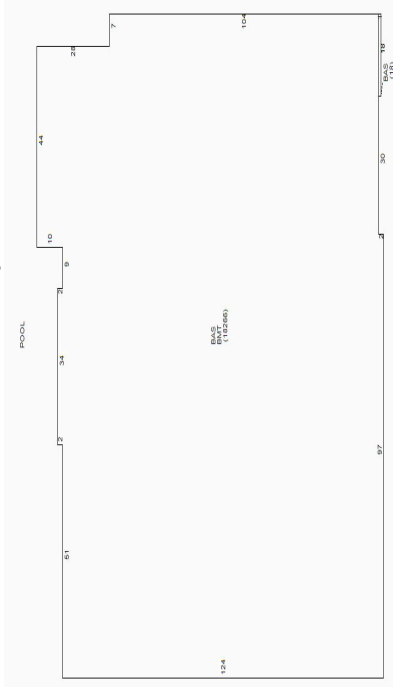
LAND SECTION

LUC - Fact Description	No of Units	Dens/Pk Units	Unit Price Adj	Base Value	Neigh Mod	Influence 1 %	Influence 2 %	Influence 3 %	Appraised Value	All Class %	Special Land JUR - Factor	Assessed Value	Notes
934-1.00 TOWN OF BROOK	10000		108.78	10878000	304				692500		YES	692500	
934-1.00 TOWN OF BROOK	90000		69.25	6232500	3-1.000000				4190200		YES	4190200	
934-1.00 TOWN OF BROOK	9679		6.00	5807400	3-1.000000				62100		YES	62100	
Total AC/HA:	Total SF/SM:	Total LUC:	Parcel LUC:	Prime NB Desc:	934	Total:	4,944,800	Total:	4,944,800	Total:	0	4,944,800.00	

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

2. Evaluation of Existing Conditions Building Code and Accessibility Narrative

Exterior Information		Bath Features (Rating)		Condo Information		Other Features (Rating)		Depreciation		Acct #													
Bid Type	X122 INST-GYM	Full Bath	0	Location		Kitchens	0	PhysCond	Avg-Good	46	%												
Sty Ht	1	Addtl	0	Tot Units		Ad Kit	0	Func		0	9,159												
Liv Units	0	3/4 Bath	0	Floor Level		Frls	0	Econ		0	Bldg Sequence												
Foundation	CN CONCRETE	Addtl	0	Num Floors	0	WSFlue	0	Spec	AG	0	2												
Frame	CN CONCRETE	1/2 Bath	6	% Own	0			OV	Average	0													
Wall	BK BRICK	Addtl	0	Name																			
Wall2		Othr Fix	12																				
	0%		T																				
	0%		T																				
	0%		T																				
RoofStruct	F FLAT																						
RoofCover	RB RUBBER																						
Color																							
ViewCode	A AVERAGE																						
General Information																							
Grade	C A	Year Bld	1966	ER Yr Bld	1974	Alt LUC	0 %	Jurisdct	Fact	1.00													
		Const Mod																					
		Lump Sum Adj	0.00																				
		Commercial Un	0																				
Interior Information																							
Avg Ht/Fl	24.00																						
Prime Wall	10 CONC BLOCK																						
Sec Wall	1 DRYWALL	10%																					
Partition	L LIGHT																						
Prime Fl	CQ CERMC-QRYTIL																						
Sec Floors		0%																					
Bsmt Floor	CN CONCRETE																						
Subfloor																							
Bsmnt Gar	0																						
Electric	AV																						
Insulation	AV	Average																					
Int vs Ext																							
Heat Fuel	O OIL																						
Heat Type	FA FORCED AIR																						
Sec Ht Type		0%																					
# Heat Sys	0																						
% Heated	100 % A/C	100																					
% Sprinkled	100 % Ctrl Vac	0																					
Calculation																							
Basic \$/SQ	290.80																						
Size Adj	0.85																						
Const Adj	1.22																						
Adj \$/SQ	247.922																						
Other Feat	272.352																						
Grade Fact	1.00																						
NBHD Infl	1.00																						
LUC Factor	1.00																						
Adj Total	6,913,840																						
Depreciatio	3,180,366																						
Dep Total	3,733,474																						
Special Features / Yard Items (1st 6 Lines Displayed)																							
Code	SEFYDesc	A	Y/S	Qty	Size	Qual	Con	Year	Unit Price	Adj UP	D/S	Dep%	LUC	L	Fa	NB	N:Fact	Juris	J	Fact	UndepValue	ApprsdValue	Assd Value
ELVP	ELEVATR	PSGF	M	Y	2	1	A	A	1970	40,525.00	81,050.00	0	84	934	1.00	304	1.00	1.00	1.00	81,050	13,000	13,000	
Total Sp. Features: 13,000												Total Appraised: 13,000											
Total Sp. Features: 13,000												Total Assessed Value: 13,000											



Sub Area Detail - 1st 10 lines Displayed

Code Desc.	F	Area	rate	Appr Val
BAS BASE AREA	18,284	18,284	303	2,989,160.00
BMT BASEMENT	0	18,266	61	597,243.00
Total	18,284	36,550		3,586,403.00


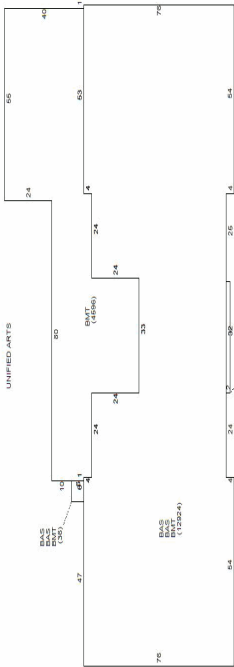
Alternate Area Detail - First 10 Lines

SubArea	%	AltType

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

2. Evaluation of Existing Conditions

Building Code and Accessibility Narrative

Exterior Information Bid Type X121INST-SCHOOL Stry Ht 2 Liv Units 0 Foundation ST STONE Frame MS MASONRY Wall BK BRICK Wall2 0% RoofStruct H HIP Roof Cover SC SLATE-CLAY Color ViewCode A AVERAGE		Bath Features (Rating) Full Bath 0 Aditnl 0 3/4 Bath 0 Aditnl 0 1/2 Bath 10 T Aditnl 0 T Othr Fix 12 T		Condo Information Location Tot Units Floor Level Num Floors 0 % Own 0 Name		Other Features (Rating) Kitchens 1 T Ad Kit 0 T Frpls 0 WSFlue 0		Depreciation % PhysCond Average 62 Func 0 Econ 0 Spec A OV Average 0 Total %Dep: 62.00		Acct # 9,159 Bldg Sequence 3																																							
General Information Grade C A Year Bt 1901 Eff Yr Bt 1968 Alt LUC 0 % Jurisdicct Fact 1.00 Constr Mod Lump Sum Adj 0.00 Commercial Un 0		Calculation Basic \$/SQ 314.31 Size Adj 0.82 Const Adj 1.13 Adj \$/SQ 258.413 Other Feat 521,809 Grade Fact 1.00 NBHD Infl 1.00 LUC Factor 1.00 Adj Total 11,711,784 Depreciatio 7,261,306 Dep Total 4,450,478						Alternate Area Detail - First 10 Lines <table border="1"> <thead> <tr> <th>SubArea</th> <th>%</th> <th>AltType</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>BMT</td> <td>100</td> <td>B01</td> <td>75</td> </tr> </tbody> </table>		SubArea	%	AltType	%	BMT	100	B01	75	Sub Area Detail - 1st 10 lines Displayed <table border="1"> <thead> <tr> <th>Code Desc.</th> <th>F-Area</th> <th>area</th> <th>rate</th> <th>Appr Val</th> </tr> </thead> <tbody> <tr> <td>BAS BASE AREA</td> <td>25,984</td> <td>25,984</td> <td>293</td> <td>2,890,886.00</td> </tr> <tr> <td>BMT BASEMENT</td> <td>9,693</td> <td>17,556</td> <td>204</td> <td>1,361,304.00</td> </tr> <tr> <td>OPN OPEN AREA</td> <td>0</td> <td>64</td> <td>0</td> <td>0.00</td> </tr> <tr> <td>Total</td> <td>35,677</td> <td>43,604</td> <td></td> <td>4,252,190.00</td> </tr> </tbody> </table>		Code Desc.	F-Area	area	rate	Appr Val	BAS BASE AREA	25,984	25,984	293	2,890,886.00	BMT BASEMENT	9,693	17,556	204	1,361,304.00	OPN OPEN AREA	0	64	0	0.00	Total	35,677	43,604		4,252,190.00					
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2. Evaluation of Existing Conditions Building Code and Accessibility Narrative



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Renovation of Existing Buildings: Seismic Requirements/Triggers (MEBC – 8th Edition)

1. The code generally does not require a seismic retrofit/upgrade, provided the use stays the same, structural alterations are not considered to be substantial and the *demand-to-capacity ratio* of any element resisting lateral forces (i.e. unreinforced masonry walls in older buildings), *does not increase by more than 10% over pre-renovation levels*. “Demand” is the seismic force (proportional to mass); adding significant mass to the building should, therefore, be avoided (major vertical additions are problematic; major horizontal additions should be structurally separated by an expansion/seismic joint). “Capacity” is the capacity of the lateral force resisting elements (typically unreinforced masonry walls) to resist lateral forces; making large openings in the masonry walls or removing large sections of the walls should be avoided, if possible. Otherwise, the altered/removed walls would need to be replaced elsewhere (with new, reinforced masonry or reinforced concrete walls), to ultimately make the argument that the stresses in the remaining, existing walls do not increase by more than 10%. If the modifications are such that this argument cannot be made, then the building would need to be retrofitted/ upgraded to resist 50% to 75% of the seismic loading required by the code for new construction (The % depends on the extent of the structural alterations). This would have a significant cost impact.
2. If the “Work Area” (area of reconfigured spaces - see attached clarification; Question 5) is less than 50% of the total area, the project would be classified as a *Level 2 Alteration* – no seismic upgrades would be necessary unless the 10% requirement noted above is not met. If the work area exceeds 50% of the total area of the building, the project would be classified as a *Level 3 Alteration*. Certain seismic hazards (anchorage of floor and roof diaphragms to masonry walls, bracing of chimneys, bracing of parapets, etc.) would need to be addressed. No further seismic upgrades would be required unless the 10% requirement noted above is not met.
3. In either a *Level 2* or a *Level 3 Alteration*, if the 10% requirement cannot be met, and the structural alterations are not considered to be “substantial” (see below), the building would need to be evaluated and seismically retrofitted to withstand 50% of the seismic loading required by the code for new construction (significant cost impact).
4. If a *Level 3 Substantial Structural Alteration* is proposed, where more than 30% of the total floor and roof area is structurally altered, the building will need to be evaluated and seismically retrofitted to withstand full wind loading and 75% of the seismic loading required by the code for new construction (again, a significant cost impact).

To ensure compliance with the above code requirements, a “Before and After” structural model must be created so the initial and final conditions can be evaluated. If only limited, original structural/architectural drawings are available, a program of extensive field investigations would be required to determine the as-built structural details.

2. Evaluation of Existing Conditions

Building Code and Accessibility Narrative

BBRS Official Interpretation No. 2014_01

Date: February 11, 2014 *and updated with Q&As 7 and 8 on October 14, 2014 and updated with Q&A 9 on December 9, 2014*

Subject: 8th Edition 780 CMR 34 Existing Buildings

Background/Discussion:

There are several sections 780 CMR 34 (*International Existing Building Code 2009* with MA amendments) which require interpretation from the BBRS to ensure that code compliance and enforcement are consistent for owners, builders, and building officials. The questions and answers below are intended to be the official interpretation of the BBRS on these matters.

QUESTION 1

Must a compliance alternative to meeting the code for new construction per **Section 101.5.0** be issued by a *registered design professional*?

ANSWER 1

No not necessarily. However, if the degree to which the code for new construction is not met or if the project is complex, then it may be practical to employ the services of a *registered design professional* (RDP). For example, if a restaurant, changing to a Nightclub, does not meet the new construction means of egress requirements of a Nightclub then an RDP may be able to determine whether the existing means of egress is sufficient to accommodate the occupant load or whether the existing means of egress needs improvements to safely do so.

QUESTION 2

If the work area method is used for a change of occupancy is an RDP allowed to incorporate building separation methods in the project plan via the requirements of **Section 912.1.1.2 Change of occupancy classification with separation** and then meet the applicable sprinkler requirements for just that occupancy per **Section 912.2.1 Fire sprinkler system**.

ANSWER 2

Yes when following the separation requirements of Section 912. In addition, attention must be paid to [M.G.L. c 148, §26G & I](#) which may require that sprinklers be installed throughout the building.

QUESTION 3

Can a single permit be issued for an application with plans that indicate Level 1 alterations in an area of the building and Level 2 alterations in another area of the building?

ANSWER 3

Yes. A single permit may be issued for an application with plans that indicate several different alteration ‘levels’ in an existing building project. However, two different compliance methods, like Work Area and Prescriptive, cannot be included in a single permit.

QUESTION 4

Plans to upgrade a 120V smoke detection system to a low voltage system with battery backup indicate that there is no *work area*. Is this OK?

ANSWER 4

Yes. If there is no reconfiguration of space then there is no *work area*, even though construction work is being done throughout the building to install this system.

QUESTION 5

What is meant by ‘reconfiguration of space’ which are words that are found in the definition of *work area*?

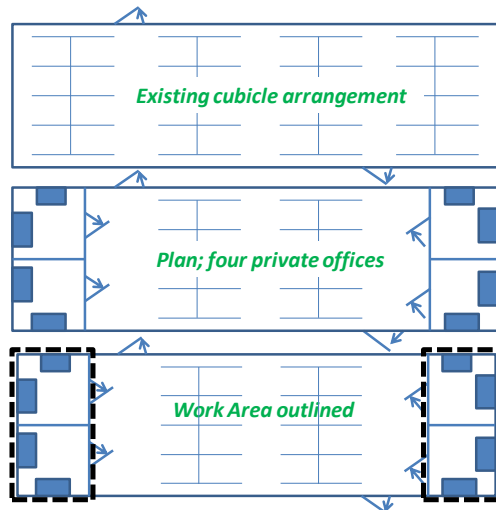
ANSWER 5

Work area of a building project is not necessarily area where work is being done (see question 4). *Work area* is defined in part as *‘that portion or portions of a building consisting of all reconfigured spaces as indicate on the construction documents.’*

Generally if space is reconfigured it changes the manner in which occupants egress from the space in terms of travel or distance to exits.

2. Evaluation of Existing Conditions Building Code and Accessibility Narrative

An example below shows an existing plan and a proposed plan with a BBRS interpretation of the *work area* (reconfigured space) enclosed by the dashed lines.



QUESTION 6

Plans show alterations to a 3-unit R-2 in which a new stairway is added from the 3rd floor unit to join the existing stairway at the rear of the building which serves the 1st and 2nd floor units. The front of the building has an existing top to bottom stairway and exit. In addition, the plans show that all the plaster and lathe will be replaced with gypsum board and alterations to the electrical systems and insulation will be done in all the units. The owner indicates the plans comply with the Work Area method and that the 1st and 2nd floor units have Level 1 alterations and the 3rd floor unit has Level 2 alterations. The work area indicated on the plans encloses the new stairway. The building currently has no sprinkler system and the plans do not show a new sprinkler system. Is this OK?

ANSWER 6

Yes, if the *work area* is on only one unit then the owner may invoke Exception 1 to MA amendment 704.2.2 which reads “The *work area* is on a single unit” and thereby **Section 704.2.2** does not apply. In this case the occupants of the 1st and 2nd floor do not egress in a manner differently as a result of the proposed work. The occupants of the 3rd floor do egress differently and in a manner that is enhanced with respect to life safety as a result of the construction. It is the responsibility of the building owner or designer to indicate on the plans the reconfigured space or *work area*. And the building official has the authority to review and approve or disapprove the *work area* as indicated on the plan.

Although the question is limited in scope it must be noted that if a system is being altered then the system must comply with the code for new construction to the extent practicable. For example since a smoke detection system (even just battery operated) is likely in the building and will be removed during construction then the plans should indicate a new smoke detection/alarm system. In addition since the framing of the building will be exposed then proper fire blocking must be installed as well. Based on the extent of construction in this building it is ‘practicable’ and thereby necessary to do each of these items.

QUESTION 7

Are common area smoke detection systems required throughout R-2 occupancies undergoing renovation, alteration or repair?

ANSWER 7

If the building is fully sprinkled throughout in accordance with 780 CMR 9, 8th Edition, then common area smoke detection is not required.

If the building is not sprinkled throughout as noted above, then common area smoke detection may be required by the edition of 780 CMR in effect at the time of original construction (or substantial renovation) or by applicable provisions of 527 CMR or M.G.L. c. 148, §26c & e. Such required systems must be maintained.

2. Evaluation of Existing Conditions

Building Code and Accessibility Narrative

QUESTION 8

When only a smoke detection system is being installed, repaired or renovated as a stand-alone project in an existing R-2 occupancy is a common area smoke detection required per 780 CMR 9, 8th Edition?

ANSWER 8

See answer to Question 7. Yes if the building is not sprinkled throughout in accordance with 780 CMR 9, 8th Edition and such a system was required by previous editions or other applicable regulations.

QUESTION 9

Does the building official have the authority to invoke:

1. fire blocking of a balloon framed building when wall cavities are exposed?
2. installation of a hard wire smoke detection system when the plaster and lathe on all exterior walls and interior ceilings are removed versus the placement of battery powered single station smoke alarms at the locations prior to the alteration?

ANSWER 9

Yes. Both the Prescriptive and Work Area compliance methods have sections that allow the building official this authority to invoke these requirements where practicable.

--Section **303.1 General** is copied here:

“Except as provided by Section 301.2 or this section, alterations to any building or structure shall comply with the requirements of the *International Building Code*. Alterations shall be such that the *existing building* or structure is no less conforming to the provision of the *International Building Code* than the existing building or structure was prior to the *alteration*”

--Section **602.4 Materials and methods** is copied in part here:

“All new work shall comply with materials and methods requirements in the *International Building Code*...”

For Question 9 item 1, when wall cavities are exposed fire blocking and fire separation should be addressed and to the extent practicable the building official can cite the requirements of 780 CMR 7. Likewise for Question 9 item 2 the building official can to the extent practicable cite the requirements of 780 CMR 9 with respect to the smoke detection requirements. The construction being done in both cases presents ‘opportunity’ and a basis for this guidance.

2. Evaluation of Existing Conditions Building(s) Systems Narrative

During the initial phase of the Feasibility Study, HMFH Architects and its consultant team evaluated and documented the existing conditions of the Brookline High School campus, both site and buildings, and its surrounding neighborhood context. The study team conducted site visits of the campus, reviewed the existing documentation of each of the campus buildings, and met with the appropriate Town of Brookline officials and Departments.

- McPhail Associates performed a Phase 1 Site Investigation of the Brookline High School campus.
- Nobis Engineering researched the existing site utilities, site restrictions, and opportunities for facility improvements. Nobis Engineering met with the Town of Brookline Engineering Department personnel to confirm the availability of public service utilities to support future campus development.
- Halvorson Design Partnership evaluated the condition of the existing hardscape site conditions and identified and assessed the plant health of the campus trees and vegetation.
- From existing documentation and site visits, HMFH Architects developed BIM models for all campus buildings.
- FBRA completed an Existing Conditions Structural Report. The report identifies and describes the structural systems of the various campus buildings, with comments on structural issues/ conditions observed.
- Garcia Galuska DeSousa Consulting Engineers documented the existing conditions of the Plumbing, Fire Protection, HVAC, Electrical, and Technology systems in all campus buildings. HMFH and GGD met with the Brookline Building Department for additional data collection and to review Town standards and goals for the future project.

Refer to Appendix A – Existing Conditions Narratives - for the complete reports as described above.

Refer to Appendix B – Additional Meetings and Analysis - for Building Department Meeting Minutes

2. Evaluation of Existing Conditions Existing Floor Plans with Current Education Occupancy

The Town of Brookline provided a variety of documentation for the various building components of the BHS Campus buildings that formed the basis of the existing conditions floor plans:

BHS Main Greenough Buildings

Drawings - 1922, 1931, 1937, 1948, 1964 and 1065, 1980, 1985, 1987, 1992 and 1996

Tappan Gym Building

Miscellaneous drawings - 1966 and 1996

Kirrane Pool

Miscellaneous drawings - 1956 and 2006

Unified Arts Building (UAB)

Miscellaneous drawings - 1928, 1981 and 1996

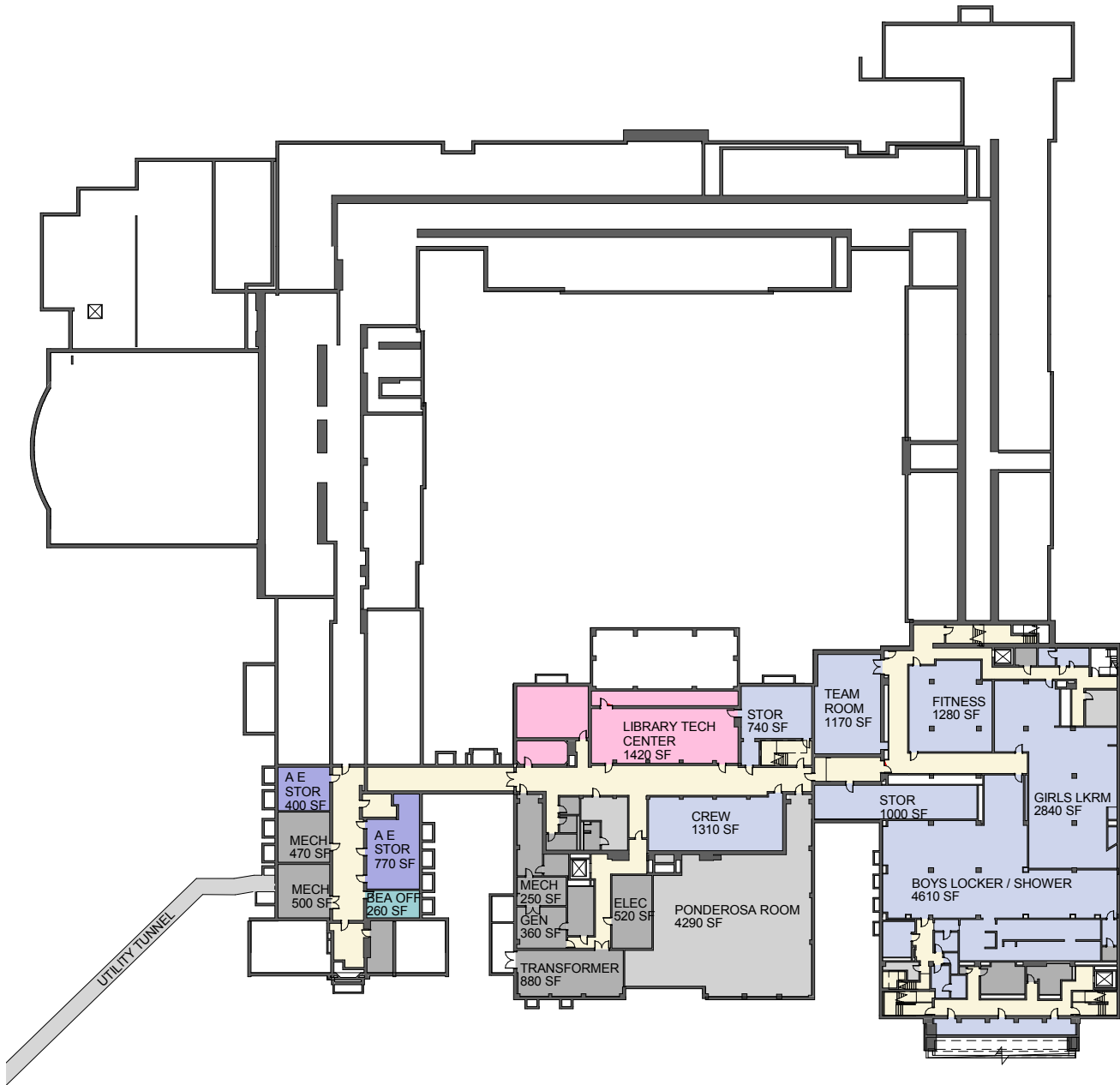
In addition, BeSafe building Diagrams, as well as Town of Brookline web-site GIS-Map information have been used to illustrate the extent of the Brookline High School campus.

A full survey of the BHS campus and the disparate buildings was not completed as part of this Feasibility Study effort. Site plan information has been compiled from the various building documentation and maps summarized above. Note that as the feasibility study scope expanded to include a stand-alone new construction facility, the Town provided 2014 Survey information of the 111 Cypress Street property.

In addition, due to the remote location of both the Baldwin and Old Lincoln schools, these properties were not included in the feasibility study development of alternatives for the accommodation of the BHS campus expansion. Note that the Town of Brookline provided building documentation of the existing Baldwin School. This school was evaluated for the current program accommodation, housing additional school programs such as the Staff Daycare and Winthrop House programs.

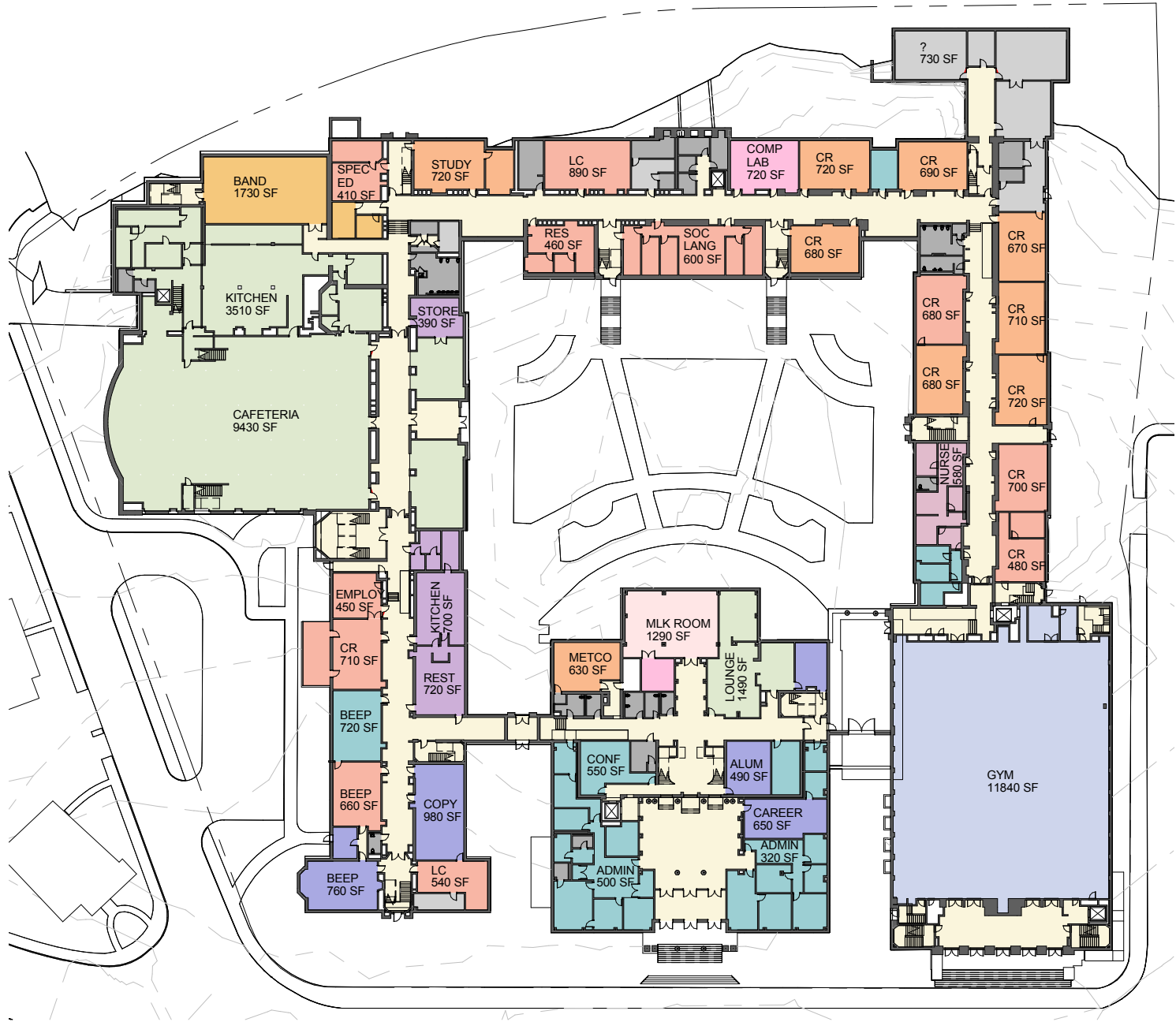
The following existing conditions floor plans illustrate the current education occupancy. These plans capture the school's program room assignments and utilization based on the YR2016-2017 academic calendar.

2. Existing Floor Plans with Current Education Occupancy BHS - Greenough Street



Basement

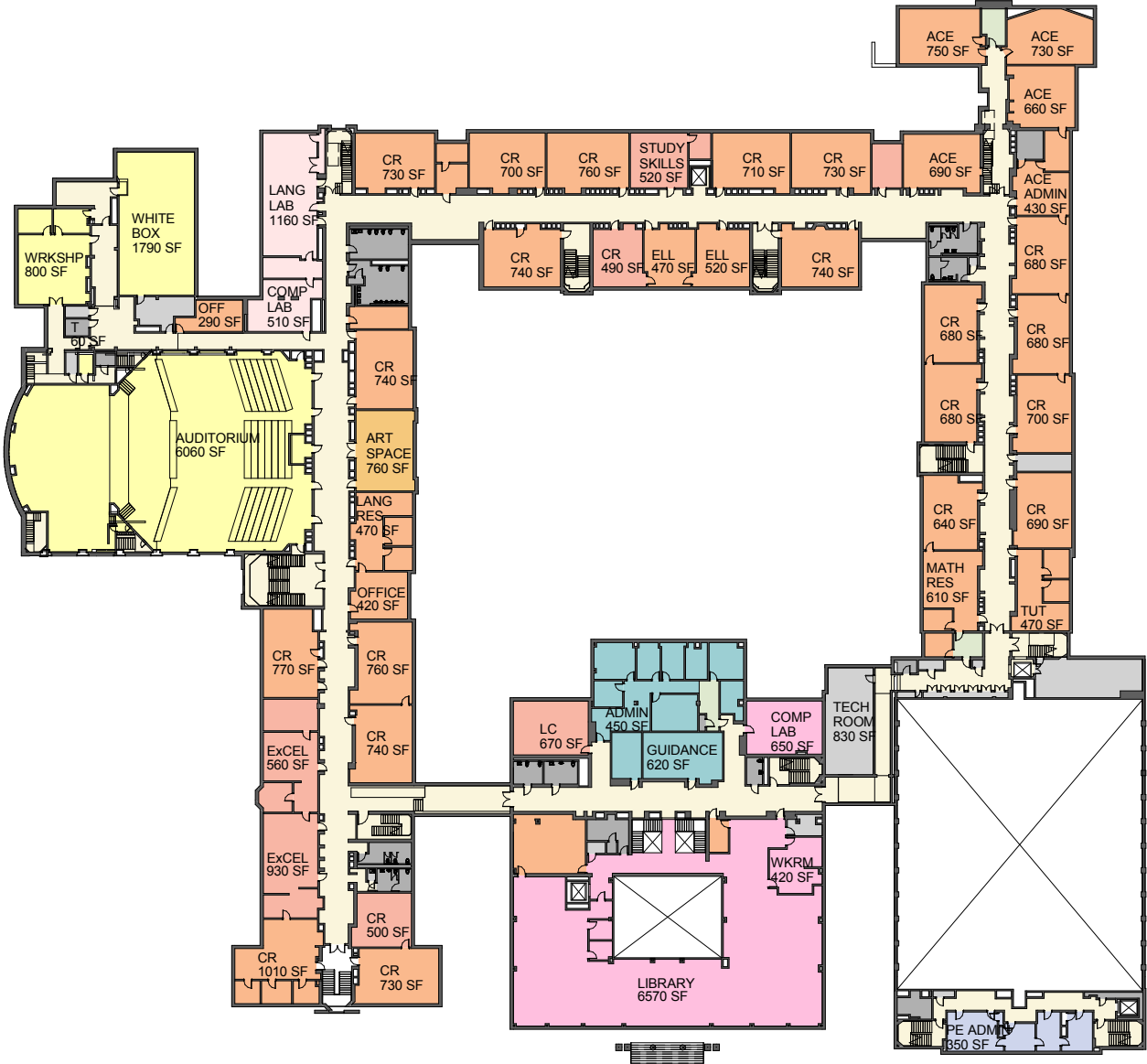
2. Existing Floor Plans with Current Education Occupancy BHS - Greenough Street



First Floor

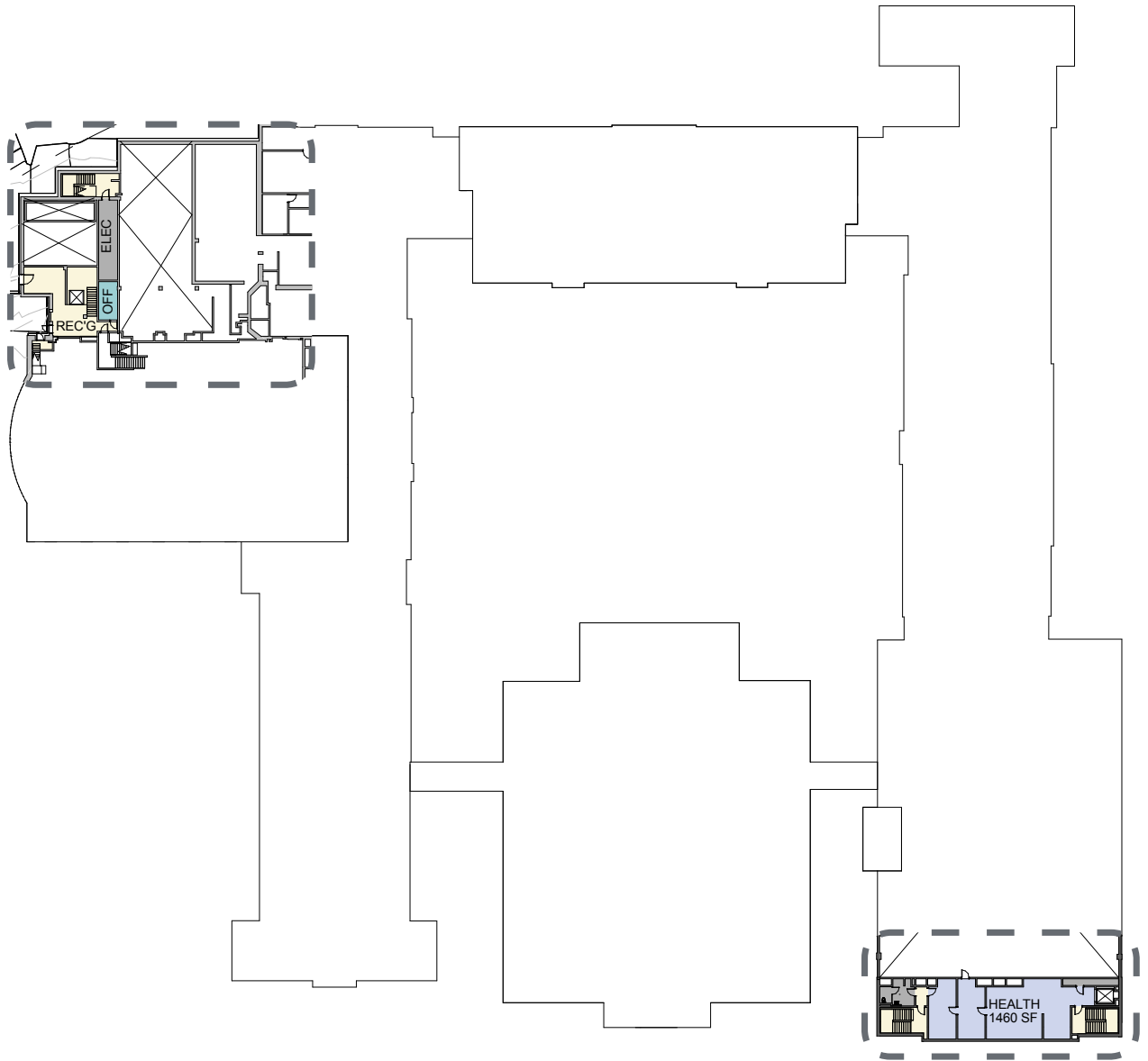
Common Shared	Administration & Guidance	Health & Physical Education	Science
Core Academic	Art & Music	Media Center	Special Education
Custodial & Maintenance	Auditorium & Drama	Medical	Support
Dining & Food Service	Circulation	Other	Vocations & Technology

2. Existing Floor Plans with Current Education Occupancy BHS - Greenough Street



Second Floor

2. Existing Floor Plans with Current Education Occupancy BHS - Greenough Street



Schluntz Gym Mezzanine

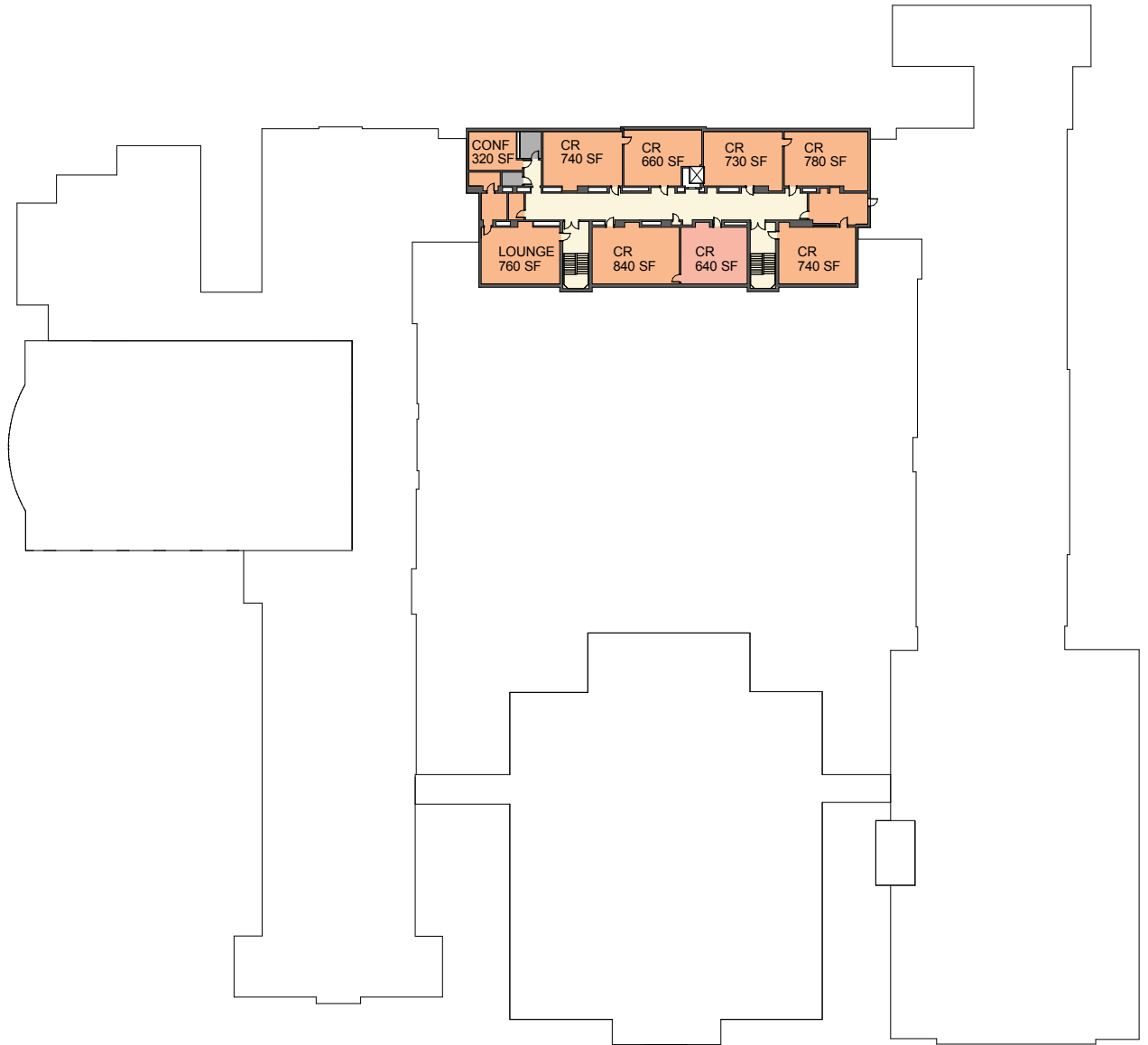
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2. Existing Floor Plans with Current Education Occupancy BHS - Greenough Street



Third Floor

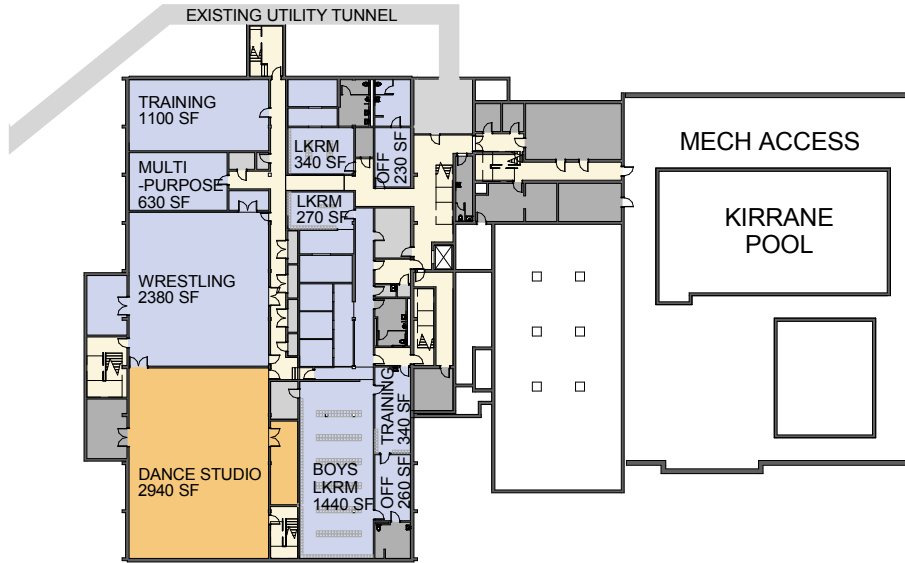
2. Existing Floor Plans with Current Education Occupancy BHS - Greenough Street



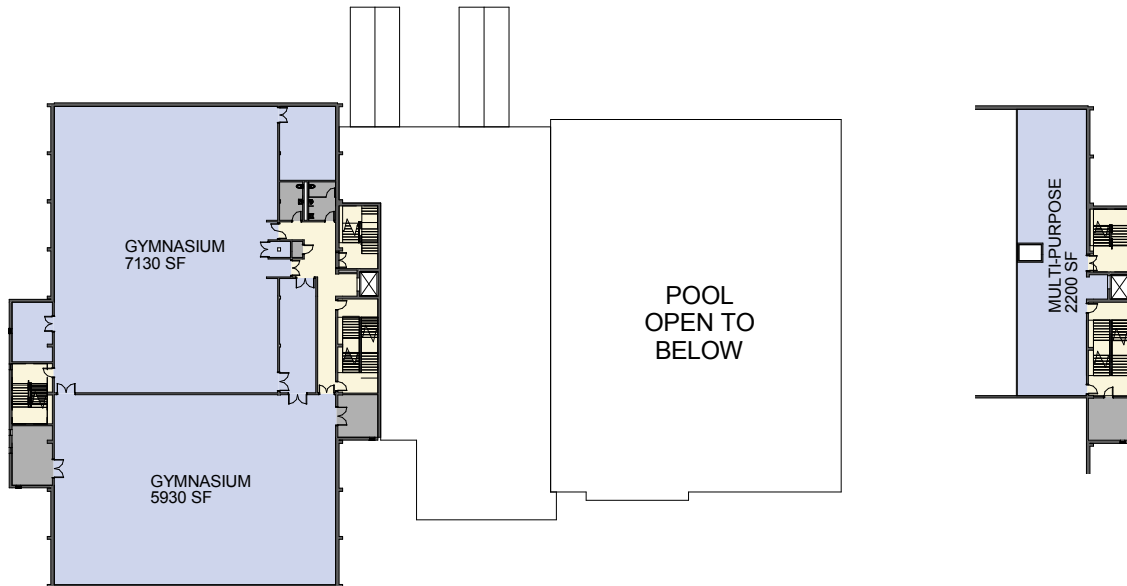
Fourth Floor

Common Shared	Administration & Guidance	Health & Physical Education	Science
Core Academic	Art & Music	Media Center	Special Education
Custodial & Maintenance	Auditorium & Drama	Medical	Support
Dining & Food Service	Circulation	Other	Vocations & Technology

2. Existing Floor Plans with Current Education Occupancy Tappan Gym



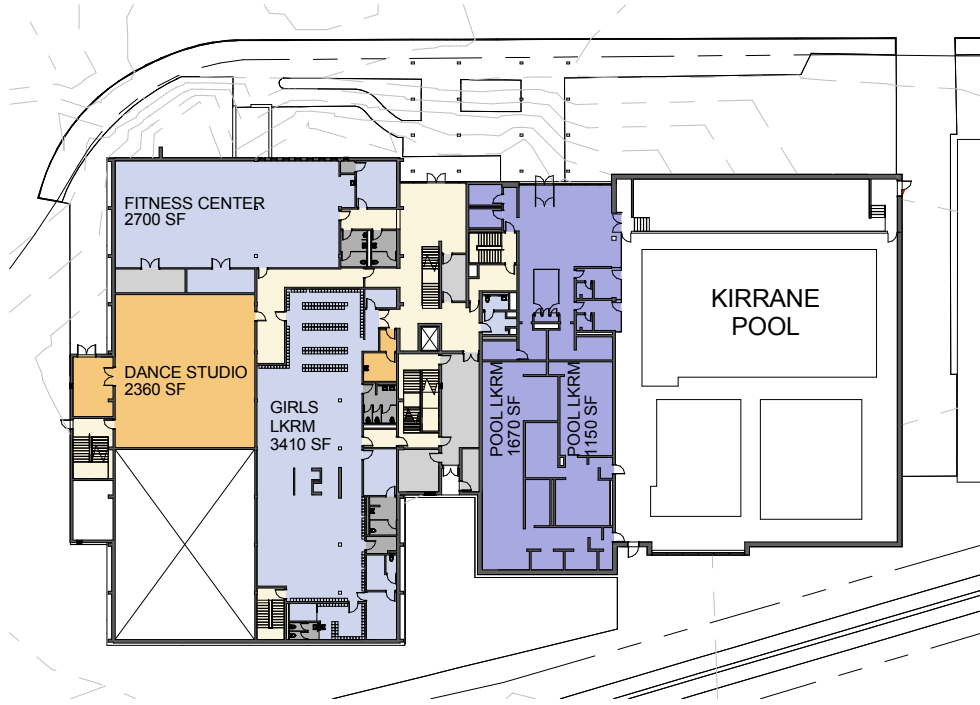
Basement Floor



Second Floor

Mezzanine

2. Existing Floor Plans with Current Education Occupancy Tappan Gym



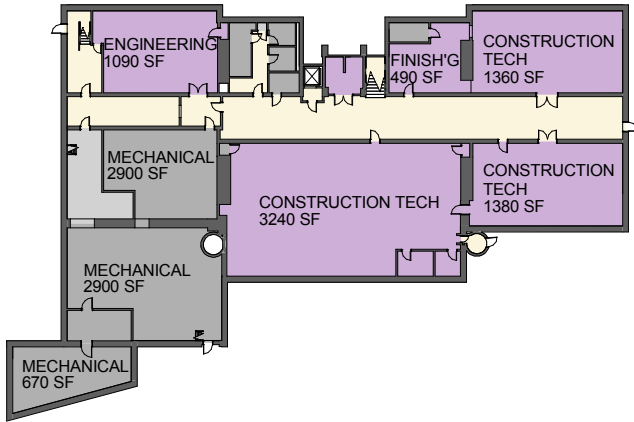
First Floor



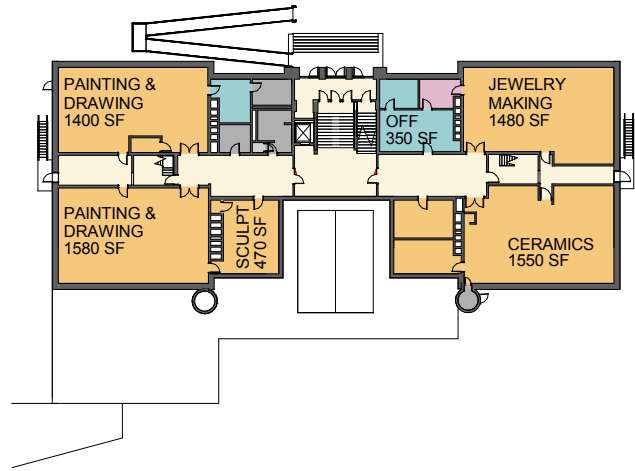
Fourth Floor



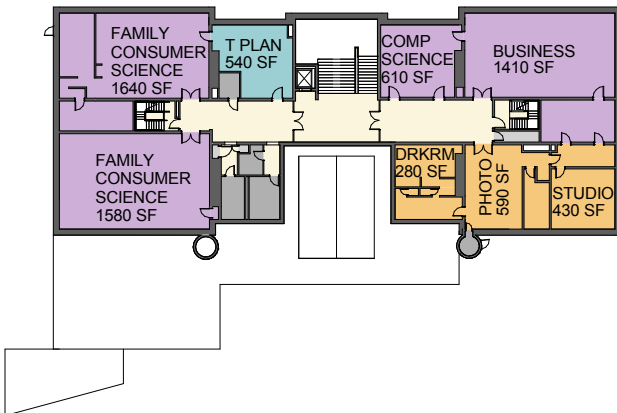
2. Existing Floor Plans with Current Education Occupancy Unified Arts Building (UAB)



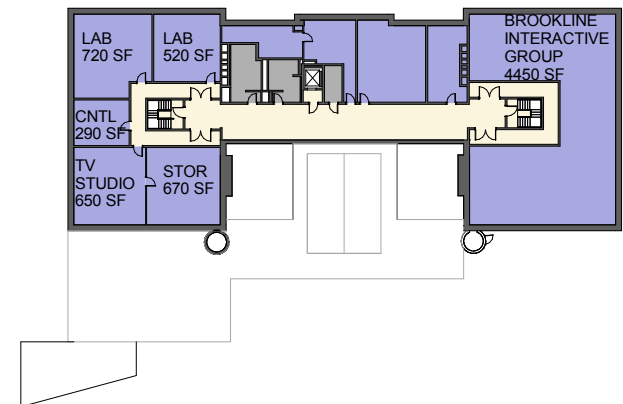
Basement Floor



First Floor



Second Floor



Third Floor

Common Shared	Administration & Guidance	Health & Physical Education	Science
Core Academic	Art & Music	Media Center	Special Education
Custodial & Maintenance	Auditorium & Drama	Medical	Support
Dining & Food Service	Circulation	Other	Vocations & Technology

2. Evaluation of Existing Conditions Transportation & Traffic Conditions

The Town of Brookline is currently evaluating the feasibility of expanding the existing Brookline High School campus to accommodate a projected significant increase in student enrollment.

The Transportation & Traffic consultant Howard Stein Hudson (HSH) was asked to assist HMFH Architects in evaluating vehicular access, pedestrian and bicycle safety, parking, bus circulation, and parent pick-up and drop-off as part of the feasibility study.

The following HSH report documents the preliminary assessment of the existing transportation issues in and around the BHS campus.

HSH completed preliminary site walk and field reconnaissance, including Drop-off / Pick-up observations, morning parking demands, and circulation patterns. Peak hour intersection counts were collected at 12 specified locations near the school. Locations were determined after coordination with the Transportation Department.

In addition, HSH had several meetings and conference calls with representatives from the Town of Brookline Transportation Department, and with School Administration.

These initial observations regarding transportation operations have been provided to help inform and direct future data collection and design efforts as they relate to access and safety.

2. Evaluation of Existing Conditions Transportation & Traffic Conditions

TECHNICAL MEMORANDUM



TO:	Deborah Collins HMFH Architects	DATE:	May 31, 2017
FROM:	Elizabeth Peart	HSB PROJECT NO.:	2016198
SUBJECT:	Brookline High School Feasibility Phase - Transportation Conditions		

Introduction

As part of the consultant team led by HMFH Architects examining Brookline High School (BHS) expansion options, Howard Stein Hudson (HSH) has prepared this memorandum, which presents initial observations of transportation conditions and issues at BHS and outlines the next steps to support the team's continued work. The BHS Building Committee recently chose Option 4D, with a new 9th grade academy at 111 Cypress Street, as the option to advance from the feasibility phase into schematic design. Funding for the schematic design phase was approved at Brookline Town meeting on May 23, 2017.

The Existing Conditions section of this memo presents information based on discussions with the study team, BHS assistant headmaster, and Brookline Transportation Department, and preliminary field observations at the BHS campus in December 2016 and May 2017. HSH had several conference calls/meetings with the HMFH team to discuss on-going conceptual design issues related to transportation. The information gathered during this feasibility phase will inform the traffic study to be conducted during the schematic design phase. The Next Steps section of this memo outlines the on-going data collection plan and the subsequent evaluation of future conditions.

Existing Conditions

BHS Campus Overview

The main BHS building occupies the block generally bounded by Greenough Street, Tappan Street, Welland Road, and a portion of Lowell Road. While the primary entrance is on Greenough Street, several building doorways provide access/egress to the adjacent streets.

Some students walk and bike to school, but the majority of students are dropped-off/picked-up by parents. While drop-off curbs are designated on Greenough Street in front of the building, Tappan Street west of Sumner Road, and Tappan Street east of Sumner Road, parents do drop-off students

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2. Evaluation of Existing Conditions Transportation & Traffic Conditions



TECHNICAL MEMORANDUM

Brookline High School – Transportation Conditions
May 31, 2017

at many points around the building, which serves to diffuse the associated vehicle traffic. During the morning arrival period, parent drop-off is relatively quick and somewhat dispersed over time. In the afternoon, many parents arrive well before dismissal and park on-street, although fewer parents pick-up in the afternoon than during the morning arrival period, because student often stay for afterschool activities or travel with friends.

The existing BHS campus also includes the Tappan Gym and the United Arts Building (UAB), which has classrooms supporting visual arts and technical education. Throughout the school day, students walk between the main building and these locations as they change classes, often not using the crosswalks at the Tappan Street/Greenough Street/Sumner Road intersection but instead walking diagonally across Greenough Street and Tappan Road.

Much of the vehicle and pedestrian activity generated by the school passes through the Tappan Street/Greenough Street/ Sumner Road intersection. While school officials have attempted, through designation of drop-off zones, to prevent vehicles from dropping-off students in this intersection, many vehicles do stop, causing conflicts with pedestrians. Brookline Police are often stationed near this intersection during peak times to enforce current regulations and support pedestrian safety. This is a key intersection for both BHS vehicle circulation and pedestrian activity. As schematic design evolves, improvements to increase pedestrian safety and reduce vehicle conflicts will be further examined.

The BHS school day starts with an optional period from 7:30 a.m. to 8:15 a.m. accommodating academic support, electives, and club activities. The first block starts at 8:15 a.m. and the school day ends at 2:50 or 2:55 p.m. on Mondays through Thursdays and at 2:15 on Fridays. The school year runs from early September through mid-June, with remedial and enrichment classes available during a six-week period in July and August.

BHS enrollment was 1,950 students during the 2016-2017 school year and is expected to increase to approximately 2,700 students by 2024. About 230 employees, including full-time and part-time teachers, para-professionals, and other staff, currently work at the school. A few employees reside nearby and walk to BHS, but most drive and park near BHS. The number of future BHS employees will likely increase proportionally to enrollment but will be confirmed as the Schematic Design process continues.

During evenings, weekends, and summer months, the BHS campus is also used by the Brookline Adult & Community Education (BA&CE), which offers almost 1,000 courses, lectures, or events throughout the year. While the BA&CE operates in nine community locations throughout the Town, the BHS campus, including the main building, Tappan Gym, and UAB, is the primary site for

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Transportation & Traffic Conditions

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classes. Consequently, the BA&CA generates parking activity in the area during non-school times. The Kirrane Aquatics Center, next to the Tappan Gym, is a Brookline Recreation Department facility open to Brookline residents throughout the week. (It is also the home venue for BHS swim teams.) While the BA&CA generates parking activity during non-school hours, some parking demand at the Kirrane Center is generated throughout the day and overlaps with BHS parking demand.

Parking

Parking supply is limited in the BHS campus area. While some off-street parking is available for employees, most employees park on-street in the surrounding neighborhood. Employees must have a permit, obtained through BHS, to park on-street. While visitor parking permits can be obtained in the school office, there is not a dedicated area for visitors. Students are not permitted to park on-street, although it is reported that some students park illegally in the area.

As part of the data collection effort under the BHS Schematic Design phase, curbside regulations will be documented and parking occupancy observations will be conducted near the school, including off-street lots and street segments.

Some BHS employees live in Brookline, but many live outside Brookline and, like most commuters, choose their preferred commuting option based on travel time, travel cost, and other convenience factors. No incentives are directly provided to BHS employees to encourage non-automobile travel choices. The Town of Brookline is currently undertaking a travel demand management (TDM) study to better understand Town employee commuting and parking characteristics. The study will include recommended strategies to reduce reliance on single-occupant automobile commuting. It is anticipated that results from the TDM study will be incorporated into the future assessment of BHS parking demand.

Public Transportation

BHS is located near (about 800 feet) Brookline Hills Station on the MBTA's Green Line/Riverside Branch, which generally runs east-west through the Town of Brookline, serving the denser populated neighborhoods north of Route 9. The Riverside Branch has five stations (Longwood, Brookline Village, Brookline Hills, Beaconsfield, and Reservoir) within the Town.

While students living near these stations do have convenient access to the high school via the Green Line, two stations are near the Brookline-Boston boundary and, therefore, have a reduced catchment potential of Brookline students. The Beaconsfield and Brookline Village stations are each about one-

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half mile from the high school, so some students in these catchment areas will choose to walk to school. Consequently, the Riverside Line is not used by many students for travelling to BHS.

As part of the data collection effort under the BHS Schematic Design phase, use of the Brookline Hills Station by BHS students and employees will be documented.

In the afternoon, the MBTA operates one direct bus trip of Route 51 from BHS to South Brookline. At many times during the school year, this one trip does not meet the student demand. Recently, discussions between the Town and the MBTA were held to explore expanding this service, but no agreement was reached.

Intersection Volumes

As the first step in the data collection effort that will continue under the BHS Schematic Design phase, peak hour intersection counts were collected on Wednesday, May 10, 2017 at 12 locations near the school. The vehicle counts are shown in Figure 1 and Figure 2 for the morning peak hour (7:30 – 8:30 a.m.) and afternoon peak hour (2:45 – 3:45 p.m.), respectively.

Next Steps

In September 2017, when the BHS is in session for the 2017-2018 school year, the following data collection efforts are planned:

- Queue Data - To supplement intersections analysis, queue observations will be conducted during the BHS arrival and dismissal periods at all study intersections.
- Parking Observations - On-street curbside regulations will be documented for the roadway segments listed below. Additionally, parking demand (occupancy) will be observed on these segments during the morning and afternoon. As discussed with Brookline Transportation Department, parking occupancy will be observed at about 10:00 a.m. and again at about 4:00 p.m. (post school dismissal). Off-street lots used by staff will also be observed during these periods.
 - Tappan Street, Gardner Road to Cypress Street,
 - Sumner Road, Blake Road to Tappan Street,
 - Greenough Street, Tappan Street to Washington Street,
 - Blake Road, Sumner Road to Somerset Road,
 - Somerset Road, Blake Road to Greenough Street,

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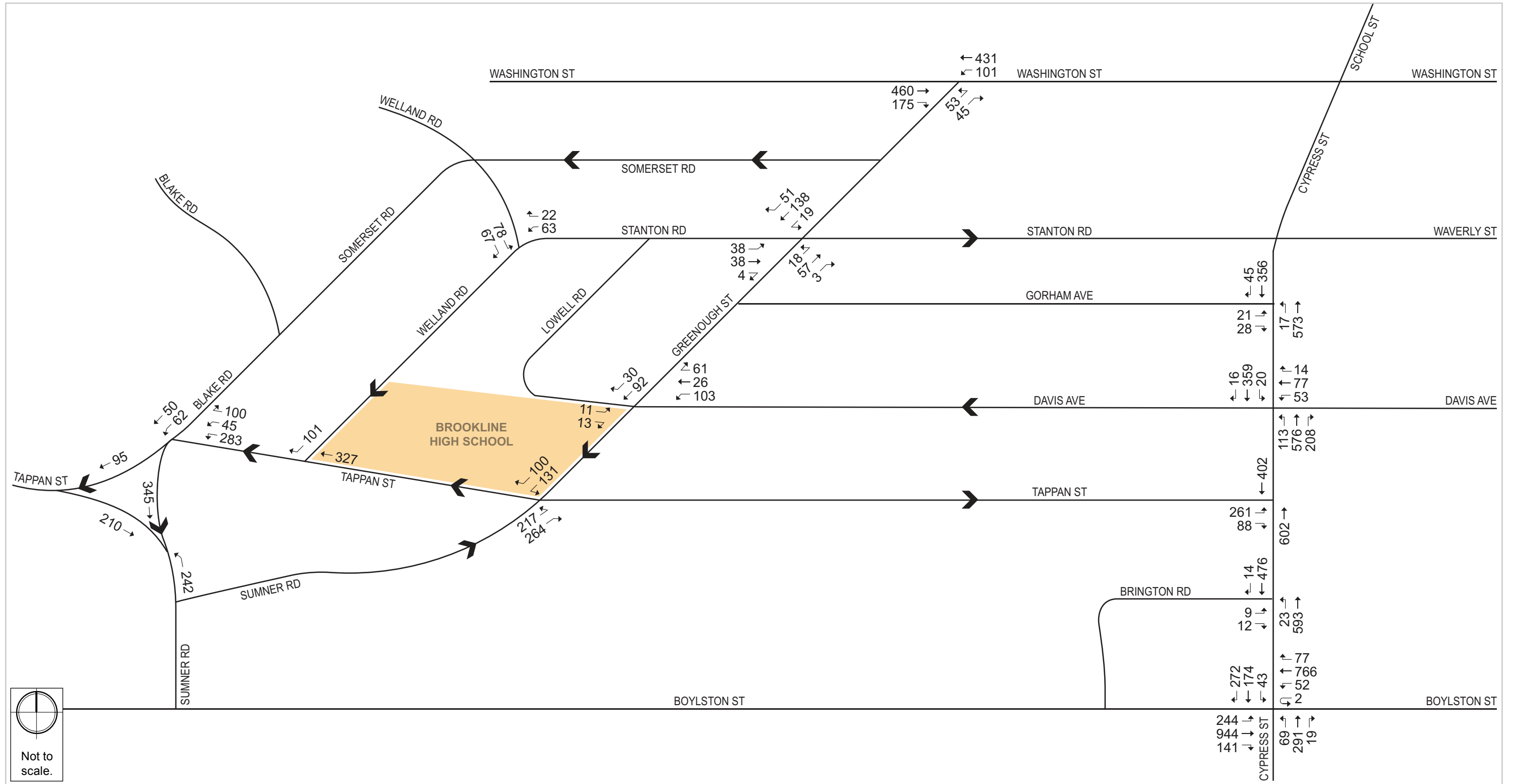


- Welland Road, Tappan Street to Somerset Road,
 - Lowell Road, Greenough Street to Stanton Road,
 - Stanton Road, Cypress Street to Welland Road,
 - Gorham Avenue, Cypress Street to Greenough Street,
 - Davis Avenue, Cypress Street to Greenough Street, and
 - Brington Road, Cypress Street to Boylston Street.
- Drop-off/Pick-up Observations - Observations will be made at five locations surrounding the BHS main building during the weekday morning (7:00–9:00 a.m.) and afternoon (1:30 – 3:30 p.m.) periods. Observations will include drop-off/pick-up activity by parents and other general arrivals. Pedestrian and bicycle patterns will be observed, noting whether safe and convenient walkways are available and used properly by students. During the field observations, any vehicle queues, congestion, and bottleneck points will be noted qualitatively.
 - Field Reconnaissance – Documentation of intersection geometries, including lane use, lane width, traffic controls, and crosswalks will be conducted.
 - Crash histories – Crash summary reports will be obtained at the 12 study area intersections from the Brookline Police Department.

Note that the final scope and budget for these items will be developed as part of the Schematic Design phase. Collectively, this data will be used to conduct intersection operational analysis for existing and future conditions incorporating a 9th grade academy on Cypress Street. The team will work closely with the BHS Building Committee and Brookline Transportation Department in developing recommendations for streetscape improvements that will enhance pedestrian safety and reduce conflicts between pedestrians and vehicles on streets serving the BHS campus, accounting for travel to/from the new Cypress Street building. Strategies to reduce employee parking demand will be developed in concert with the on-going TDM study being prepared by the Town.

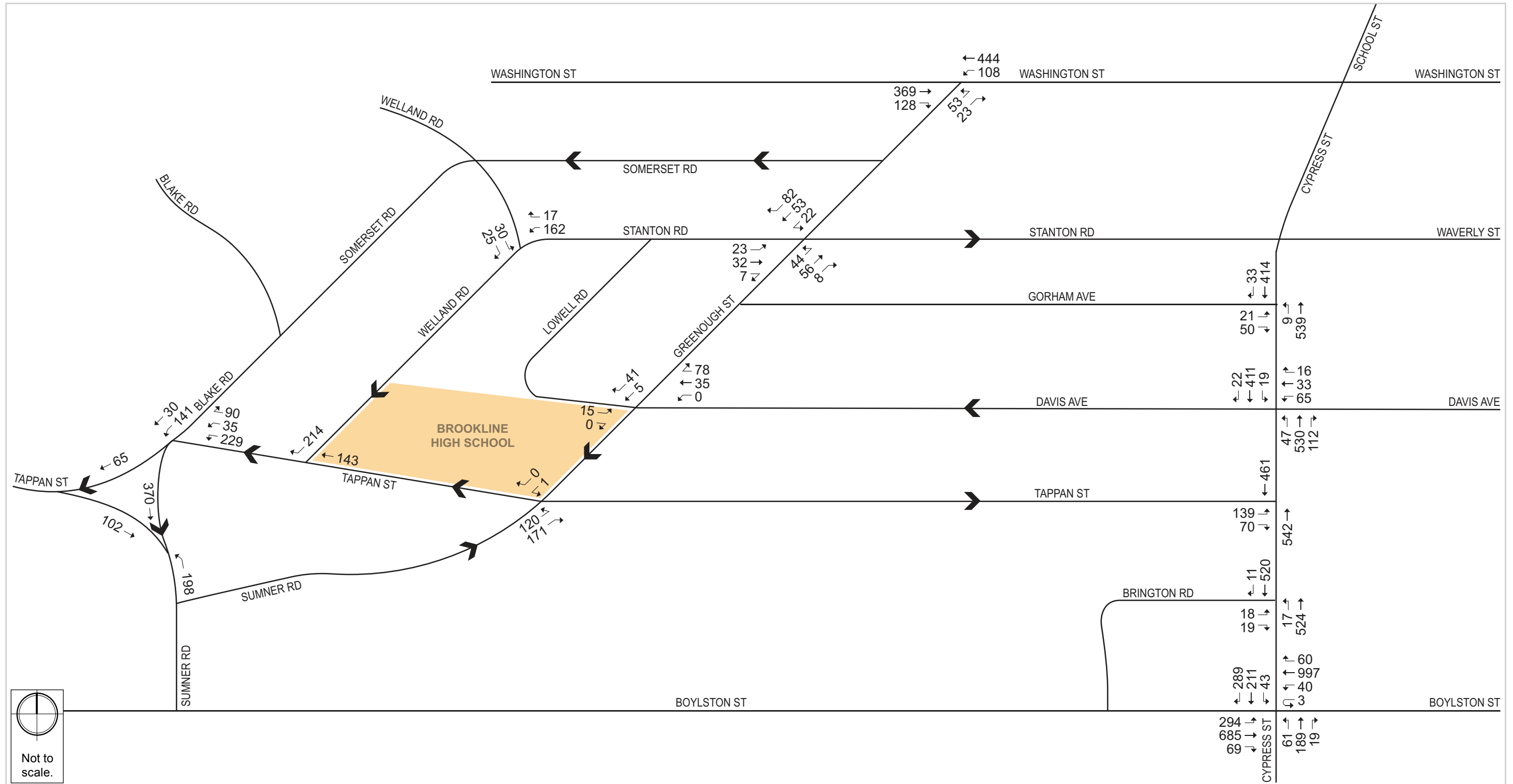
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Figure 1. Existing (2017) Condition Traffic Volumes, a.m. Peak Hour (7:30-8:30 a.m.)



2. Evaluation of Existing Conditions Transportation & Traffic Conditions

Figure 2. Existing (2017) Condition Traffic Volumes, p.m. Peak Hour (2:45-3:45 p.m.)



Not to scale.

3. Education Program

Brookline High School Education Plan	3.48 - 3.110
Summary of Utilization	3.111
Guiding Statements for Educational Program Levels	3.113
Space Summary Three Levels of Accommodation	3.113 - 3.136
Graphic Space Summary Options 1, 2 & 3 Three Levels of Accommodation	3.137 - 3.138
Space Summary - Option 4 Stand-alone Off-site 9th Grade Academic Building and BHS Improvements	3.139 - 3.164

3. Brookline High School Education Plan v.5



Brookline High School Expansion & Renovation Process

Education Plan
Draft
February 10, 2017

3. Brookline High School Education Plan v.5

Brookline High School – Expansion/Renovation Process

Education Plan -- Executive Summary

The Public Schools of Brookline is taking the opportunity of expanding Brookline High School to rethink what we do, how we do it, and how well we do it. While we look closely at and appreciate all of the success our school and our students have had over the years, we acknowledge that we must build now the school that our community will be proud to have for the next 50 years.

Although it is difficult to anticipate the changes that will happen in our community, our country, and the world, if the past 100 years are any guide, we know we need to prepare our students for the changes and challenges to come. The way educators, students, community members, and partners work together and the physical space where they collaborate will determine how successful Brookline is in preparing the next generation for college, career and the communities where they will live.

Three questions propel us in developing this Education Plan and therefore the anticipated expansion and renovation of Brookline High School:

1. How will we more deeply engage all students at BHS so their education is personally meaningful, positively impacts themselves and others, and prepares them for the changes and challenges ahead?
2. How do we better serve all students so they are connected to BHS, feel supported to be full, thriving members of our community who share their talents and passion, and have the support needed to excel academically?
3. How do we accommodate growth and expansion and still retain the essential unity, feel, and cohesion of the Brookline High School campus?

1. How will BHS engage student more deeply?

Engaging all students more deeply requires that we provide opportunities for them to explore the connections between fields and subjects, investigate, take action, make an impact on their classmates and their community, collaborate, solve problems that matter to them, create, think critically, and make choices about what they study and how they study it. Education that looks like this requires flexibility in scheduling, instruction, course offerings, and curriculum. It requires greater integration across subject areas and deeper collaboration among faculty, especially those in distinct subject areas. The physical spaces that support this type of learning will need to mirror the educational approach and allow for better integration across disciplines, more flexibility in the use and configuration of space, and spaces that support collaboration, communication, and connection.

2. How will BHS better serve all students?

Brookline High School is renewing its commitment to equity of access and outcomes so that all students



Brookline High School – Expansion/Renovation Process

can be full, thriving, and academically successful members of our school community. We will continue to improve our approach to identifying students who need academic and social-emotional supports and provide interventions inside and outside of the classroom to help these students be successful. Better serving all students requires us to create the structures and provide the support that build connection between adults and students and among classmates. The physical space must support the need to make a large school have an intimate feel where each student can find his or her own way and never feels overwhelmed by the sheer size of the student body or the school building. The structures and spaces for guidance, college and career counseling, health and mental health services, and special education programs need to be well organized and appropriately situated within the life of the school so students will avail themselves of these supports.

3. How do we expand BHS and still maintain a cohesive, unified campus?

While the current campus is truly an accident of 170 years of growth and expansion, the next phase of BHS must take a look at the campus as a whole in creating any solution. The great fear is creating an anonymous sea of 2600+ students where both students and teachers feel marginalized and disconnected from the community. A solution that merely adds additional classrooms at a nearby location will lead to the degradation/diminishment of all of our core values. However, a plan for an integrated campus including the current buildings, new building(s), Cypress Field, parking, and the community is something we believe will succeed in addressing our values of high academic achievement for all students, excellence in teaching, understanding and respect for human differences, collaborative relationships, and educational equity.



How we answer these three essential questions through the design process and construction of new spaces and facilities will go a long way in creating the type of education Brookline High School will provide in the next fifty years.

Some of these answers will come from essential changes to the way the school is organized structurally: rethinking the use of our current facility as well as how we would use the expanded campus we hope to build. Some of the answers will come from new and innovative spaces, where learning takes place across disciplines and outside the traditional classroom walls. Some of the answers will come from improving our current spaces so the physical structures of our school do not limit what can be achieved. All of our answers need to be about how we address issues of equity and achievement and how to better support all students so they can each attain their best possible future.

With this building project, Brookline High School will address the dual challenges of meeting the instructional needs of students and teachers in the 21st century and addressing the rapid and unprecedented



3. Brookline High School Education Plan v.5

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expansion of the town's school-age population. While adding to our existing campus enables the school to create new spaces not otherwise available in the current facility, the expanded campus must maintain, and in many ways allow us to deepen, the personal connections essential for any student to successfully navigate high school. The design must support the need for all students to be connected to the larger high school community while allowing them to explore other communities and ultimately find the one or ones where they have a strong sense of belonging.

One key conclusion of this educational plan is that the expanded school must help us achieve the pedagogical vision of our various departments and teams in a fully integrated and interwoven experience for our students. The school needs flexible spaces to foster collaborative activities within departments, interdepartmentally, and throughout the school. These flexible spaces can take many forms: expandable classrooms, common areas for students and for faculty, maker spaces, and laboratories. We anticipate that the feasibility study and the design process will provide the opportunity for BHS teachers and staff to work with architects and planners to develop ideas and explore options for creating these flexible collaborative spaces that will help us meet the evolving needs of students in the 21st century.

Through the visioning and collaborative process used to develop the Educational Plan, the school community, faculty, and staff have identified other key beliefs to consider:

- We believe the true business of the school and our most sacred work is the teaching and learning that happens in our school.
- We believe what makes BHS in its current form so successful is the close connection of students and adults in the building. It is essential that the big school retain this small school feel.
- We believe it is essential to consider the campus as a whole in any renovation or expansion plan. BHS must look, feel, and be an integrated whole instead of loose consortium of disconnected buildings.
- We believe any future high school will need open and unfettered access to technology, and support for a one-to-one environment.
- We believe that students and teachers do their best work when well-lit and properly heated and ventilated spaces are accessible to all
- We believe collaboration and connection with teachers and other students are essential and therefore should be reflected both in class sizes and in new physical spaces in the complex.

Beyond holding these general beliefs about Brookline High School, we summarize below key areas that will be essential to engaging students, supporting students, and creating a cohesive campus and educational approach. These areas will be detailed more thoroughly in the body of the Education Plan.

Experience and Exploration Beyond the BHS Campus



Brookline High School – Expansion/Renovation Process

As part of our efforts to more deeply engage students in their learning and provide more active learning opportunities, BHS will develop connections and collaborations with area businesses, universities, research centers, and governmental and non-governmental organizations. By offering options that complement and extend the traditional classroom, students will have the ability to directly apply their skills in active way. Examples range from having students learn about design thinking at the MIT Media Lab, hosting professionals for month-long residencies, participating in service projects alongside international aid organizations, participating in internships related to academic or artistic studies, and having professionals visit the school to share their career experiences and wisdom.

21st Century Disciplines, Approaches, and Learning Experiences

Ultimately our students will need the tools to creatively and collaboratively solve problems and communicate their solutions to a diverse audience of stakeholders. To this end, BHS students will participate in deeper learning experiences in 21st century disciplines, approaches and methods such as design thinking, coding and computer science, robotics, and the integration of science, technology, engineering, design, and the arts (STEAM). We expect to broaden the use of the design thinking process as one way to more deeply engage students who prefer a more active approach to learning and problem solving. By breaking down the artificial barriers between disciplines, and by integrating science, technology and the arts, students will emulate the efforts that have brought about the most innovative solutions of our time and create ones of their own. Computer Science and coding can be taught as separate content areas as well as integrated into a wide range of courses, so students can actively create solutions and demonstrate their learning. While pockets of this work exist at BHS, we need to widen our offerings and integrate them more fully across disciplines in the years to come, ensuring wide exposure to 21st Century learning is available for all learners. It is a matter of equity, and this type of learning and work should be integral to all students' BHS experience.

Interdisciplinary Learning and Collaboration

Coordinators and teachers across all subject areas continue to stress that rich, authentic learning opportunities exist for students and teachers when we break down disciplinary silos and approaches and support teachers to collaborate. The best, most recent example of this type of collaboration is the 5-year commitment to the Content-area Reading Initiative (CRI) that took an interdisciplinary approach to supporting literacy and reading in all areas. Coinciding with the implementation of the Common Core State Standards (CCSS), a focus on disciplinary literacy at the high school level meant that educators must work to teach all students to become stronger readers and writers, and also to learn the literacy skills specific to each academic discipline.

In order to meet the challenges of developing students' literacy skills across multiple disciplines, cross-content teams of BHS educators engaged in the CRI professional learning opportunity with goals of reflecting on past practice, experimenting with new approaches to teaching literacy, and sharing that learning with colleagues to encourage more explicit and effective literacy instruction school-wide.



3. Brookline High School Education Plan v.5

Brookline High School – Expansion/Renovation Process

Over the course of four years, teachers from English, Social Studies, Math, Science, World Language, plus a hybrid team of individuals from various departments, participated in structured professional learning, relying heavily on the use of inquiry to develop new disciplinary literacy practices that they then infused into their teaching. During their time, teachers reported wholesale shifts in practice as they sought to explicitly teach their students the tools of literacy in their disciplines, and also new collaborative relationships to support their ongoing learning and instruction. Ultimately, the infusion of humanities-type skills into all disciplines has proven essential to the future of BHS as it contributes both to interdisciplinary approaches to learning and 21st century skill building.

The design of CRI was intended both to address identified needs in disciplinary literacy instruction at the school and to utilize collaborative, professional learning community (PLC) structures in order to begin to shift the ways that teachers work together -- within and outside of their departments.

As BHS considers modernizing our facility and our instructional approaches, it is important to support teachers in providing our students with more interdisciplinary learning opportunities and expanded interdisciplinary course offerings. We currently have several examples of these types of classes at BHS, including communication for entrepreneurs, documentary film and history, journalism, and visual arts and field science. We are also considering an American Studies class for US history and language arts; a media studies class to expand access to journalism, layout, and production; and the aforementioned STEAM offerings. In considering the design of the expanded campus, it is important to create a physical structure that supports the integration and collaboration required of teachers and students across multiple disciplines. The need for flexible collaborative spaces that can be used in multiple ways and transformed quickly for other use are essential with spaces that allow for larger, mixed groups of students to gather in a larger space, as a way of promoting the flexibility and adaptability we recognize as essential 21st Century skills. Some of these could be explicitly designed as makerspaces in which students could be using a wide variety of hands-on activities to support academic learning and the development of a mindset that values playfulness and experimentation, growth and iteration, and collaboration and community.

Scheduling for Access, Collaboration, and Support

We believe it is essential to examine how we use time, our buildings, and the school schedule to offer more academic support and extracurricular opportunities throughout the day. Such opportunities could occur before, during, and after school, and could take various forms: a morning session, an intervention block within the day for both re-teaching and enrichment opportunities, an extended day academic center with highly structured support and/or extracurricular offerings on and off campus.

Socio-emotional Curriculum, Supports, and Interventions



Brookline High School – Expansion/Renovation Process

We recognize the need for a more systematic and coordinated approach to social-emotional learning (SEL), supports, and interventions as essential in retaining a small school feel in an increasingly larger school environment and maintaining the direct connection between adults to students. By intentionally connecting already existing programs at BHS such as the Mindfulness/Stress Reduction curriculum, Identity Curriculum, developmental guidance seminars, 9th grade Health/Fitness curriculum, and SEL activities within the Advisory curriculum including Anti-Bullying, we are already moving in this direction. By intentionally mapping and adding to these existing Social Emotional Learning opportunities, we will work to meet the developmental needs of all students regarding feelings of belonging, safety, and community while at BHS. We will develop more directed SEL supports and “soft” skills for students as they transition from the Brookline elementary schools to BHS, as well as promote these developmental skills as they move out of BHS into college and career options after graduation.

A Diversity of Academic and Enrichment Opportunities Helps Students Connect and Contribute

BHS presently offers an impressive range of academic, social, artistic, athletic, and club programs. At the heart of this diverse set of offerings lies the understanding that high school students want to explore opportunities, and they want to find a place where they belong, can see themselves and their interests represented, and can participate. This home base can come in the form of an academic program, a dance group, a club, a theater group, an advisory, an athletic team, or a multitude of other micro-communities within the larger BHS community. As we grow larger, BHS must take care to continue to create spaces, places, and structures so all students can form the connections that allow them to contribute their best selves. We will assess our currently existing academic and enrichment programs to identify which may require expansion and where we need to add new ones.

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The education plan that follows envisions the instructional, organizational, and physical changes that we anticipate in the coming years while trying to sustain the best of the existing and historical strengths of Brookline High’s academic and enrichment programs. Throughout the plan and all the work ahead, we endeavor to come up with the best possible answers to how do we engage all students, how we do support all students, and how do we make sure all students feel connected to the community we continue to build.



## 3. Brookline High School Education Plan v.5

# Brookline High School – Expansion/Renovation Process

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### Education Plan

#### Educational Planning and Visioning Process

Beginning in the summer of 2014, the Public Schools of Brookline, the Brookline High School (BHS) community, and the architecture firm Symmes Maini & McKee Associates (SMMA) began an in-depth educational planning process that informed the following Education Plan document. This Educational Plan is a critically important step in the process leading towards a substantially expanded Brookline High School, as this Educational Plan details our vision for BHS for the next fifty years. As one of the Commonwealth's oldest extant and continuously active high school structures, BHS has served its community well. Its multiple additions over the years have allowed for a dynamic and comprehensive offering of educational programs to serve the increasingly diverse student population of the community. A large renovation in the late 1990s arranged the disparate buildings on the campus into a more unified whole, but the campus still retains a very mid-1900s conception of education and administrative organization. Throughout the Educational Plan are noted areas where the campus fails to achieve today's 21st century educational practices and where the school's core organization requires a more collaborative and integrated approach to serve our students well.

In spring 2014, SMMA educational planners met with staff, administration and students in a variety of sessions. In June and September 2014, SMMA facilitated two workshops that involved more than 30 community members including school and town administrators, teachers, parents, teachers, elected officials, community groups, and business leaders. Each collaborative session was designed to inform the Brookline High School design process. Participants were led through a step-by-step visioning process aimed at capturing their best thinking about Brookline High School's current and future educational goals and priorities, and connecting them to best practices and possibilities in innovative school facility design. Through these sessions, participants identified Guiding Principles for the design of an expanded Brookline High School.

In spring 2016, the BHS Design Working Group convened the school's Academic Standards Committee, faculty, and staff in discussions about the ongoing growth of the high school and the likely expansion. In these discussions, BHS faculty and staff reaffirmed that the school's Core Values and the Guiding Principles identified during the 2014 visioning process should drive the design of an expanded school. During these meetings, faculty and staff also considered the pros and cons of multiple design options. The most recent step in gathering community input about the design for an expanded Brookline High School occurred in June 2016 when more than 100 parents and community members gathered at the high school to consider the design options discussed by school faculty and central office staff earlier in the spring.

The goal here has been to connect the project to the school's long study of what makes Brookline High School what it is. We believe this was distilled clearest in the core values beliefs and expectations (see Section 2 Appendix A) created for the NEASC review in 2011, which in turn is a further distillation of numerous earlier explorations of the mission and values of the school. Through each of the sessions and over this long period of years the school has arrived at a clear list of guiding principles that are fundamental to consider as the school expands. These guiding principles are a distillation of the core values of the school and the district as well as the mission of the school, as a way of understanding how these relate to the expansion of the school both physically and structurally.



## Brookline High School – Expansion/Renovation Process

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**Guiding Principles** for the Design of an Expanded Brookline High School identified during 2014 Visioning Sessions and reaffirmed by Faculty and Staff in Spring 2016:

- Big School, Small Feel
- Allows for Integration between Disciplines & Departments
- Use of the Entire Building/Campus for Teaching & Learning
- Allows for self-directed, hands-on and experiential learning
- Flexible learning spaces – allow for performance, presentation, collaboration, socializing, independent and group study
- Green/Sustainable

**BHS Core Values and Cultural Strengths:**

- Breadth of Academic and Social Emotional Supports
- Continuous Learning and Rich Experiences for a Range of Learners
- Cultural Diversity/Human Differences
- Relationships are Foundational
- Safety – Intellectual, Social, Emotional and Physical
- Shared Ownership of School and Learning

### 2.1 GRADE AND SCHOOL CONFIGURATION POLICY

Brookline High School educates students in grades nine through twelve, as well as students requiring additional services until the age of 22. The mission of Brookline High School is to develop capable, confident, lifelong learners who contribute to their community, participate thoughtfully in democracy, and succeed in a diverse and evolving global society.

The town of Brookline intends to expand/reconfigure/reimagine the current grade nine through twelve high school to accommodate the 50% rise in enrollment from 2010 to 2025. (See Section 2, Appendix B.) This expansion could be done in several ways.

Brookline High School was founded in 1843. Brookline High School is known best for its extensive curriculum, outstanding faculty, and innovative programs and services, leading to students' academic success. Brookline is a dynamic and progressive community of approximately 60,000 people, deeply committed to the success of its public schools.

### 2.2 CLASS SIZE POLICY

Although there is no official class size policy at Brookline High School, the administration makes every effort to keep class size manageable to optimize learning for all students. Additionally the BSC and the BEU have a stated goal of keeping class sizes at no more than 25. The school tries to stay within a desired range of 18-25 depending on the level of the class for academic classes. Courses in elective programs the range from up to 80 in some music programs to 16 in some shop courses and is guided by safety and/or space concerns.





### 3. Brookline High School Education Plan v.5

## Brookline High School – Expansion/Renovation Process

### 2.3 SCHEDULING METHODOLOGY

Brookline High School uses a weekly block schedule - a five-day cycle with classes meeting 4x per week for 220 minutes. The school day begins at 8:20 am and ends at 2:50 pm, with some additional classes meeting at 7:30am. There are currently three 30-minute lunches per day.

**Brookline High School Weekly Schedule 2016-2017** v1.1

| MONDAY                                                                                                                                                                                                                                           | TUESDAY                                                                                                                                                                                                                                            | WEDNESDAY                                                                                                                                                                                                                                        | THURSDAY                                                                                                                                                                                                                                         | FRIDAY                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Z1 7:30 – 8:15                                                                                                                                                                                                                                   | Z2 7:30 – 8:15                                                                                                                                                                                                                                     | Z3 7:30 – 8:15                                                                                                                                                                                                                                   | Z4 7:35 – 8:15                                                                                                                                                                                                                                   | Z5 7:30 – 8:15                                                                                                                                                                                                                                  |
| A1 8:20 – 9:10<br>50                                                                                                                                                                                                                             | A2: 8:20 – 9:20<br>60                                                                                                                                                                                                                              | A3 8:20 – 9:10<br>50                                                                                                                                                                                                                             | B3: 8:20 – 9:20<br>60                                                                                                                                                                                                                            | B4 8:20 – 9:10<br>50                                                                                                                                                                                                                            |
| B1 9:15 – 10:15<br>60                                                                                                                                                                                                                            | T-Block 9:25 – 10:05                                                                                                                                                                                                                               | B2 9:15 – 10:10<br>50<br>5 minute info time                                                                                                                                                                                                      | A4 9:25 – 10:25<br>60                                                                                                                                                                                                                            | D4 9:15 – 10:05<br>50                                                                                                                                                                                                                           |
| C1 10:20 – 11:15<br>50<br>5 minute info time                                                                                                                                                                                                     | C2: 10:10 – 11:10<br>60                                                                                                                                                                                                                            | C3 10:15 – 11:15<br>60                                                                                                                                                                                                                           | X-Block 10:30-11:10                                                                                                                                                                                                                              | E4 10:10 – 11:00<br>50                                                                                                                                                                                                                          |
| D1:<br>60<br>Class 1: 11:20 – 12:20<br>3 <sup>rd</sup> Lunch: 12:25 – 12:55<br><br>Class 2a: 11:20 – 11:50<br>2 <sup>nd</sup> Lunch 11:50—12:20<br>Class 2b: 12:25 – 12:55<br><br>1 <sup>st</sup> Lunch: 11:20 – 11:50<br>Class 3: 11:55 – 12:55 | G2: :<br>60<br>Class 1: 11:15 – 12:15<br>3 <sup>rd</sup> Lunch: 12:20 – 12:50<br><br>Class 2a: 11:15 – 11:45<br>2 <sup>nd</sup> Lunch 11:45—12:15<br>Class 2b: 12:20 – 12:50<br><br>1 <sup>st</sup> Lunch: 11:15 – 11:45<br>Class 3: 11:50 – 12:50 | F2:<br>60<br>Class 1: 11:20 – 12:20<br>3 <sup>rd</sup> Lunch: 12:25 – 12:55<br><br>Class 2a: 11:20 – 11:50<br>2 <sup>nd</sup> Lunch 11:50—12:20<br>Class 2b: 12:25 – 12:55<br><br>1 <sup>st</sup> Lunch: 11:20 – 11:50<br>Class 3: 11:55 – 12:55 | E3:<br>60<br>Class 1: 11:15 – 12:15<br>3 <sup>rd</sup> Lunch: 12:20 – 12:50<br><br>Class 2a: 11:15 – 11:45<br>2 <sup>nd</sup> Lunch 11:45—12:15<br>Class 2b: 12:20 – 12:50<br><br>1 <sup>st</sup> Lunch: 11:15 – 11:45<br>Class 3: 11:50 – 12:50 | C4:<br>50<br>Class 1: 11:05 – 11:55<br>3 <sup>rd</sup> Lunch: 11:55– 12:25<br><br>Class 2a: 11:05 – 11:30<br>2 <sup>nd</sup> Lunch 11:30—12:00<br>Class 2b: 12:00 – 12:25<br><br>1 <sup>st</sup> Lunch: 11:00 – 11:30<br>Class 3: 11:35 – 12:25 |
| F1 1:00 – 2:00<br>60                                                                                                                                                                                                                             | D2 12:55– 1:45<br>50                                                                                                                                                                                                                               | D3 1:00 – 2:00<br>60                                                                                                                                                                                                                             | G3 12:55 – 1:55<br>60                                                                                                                                                                                                                            | F4 12:30 – 1:20<br>50                                                                                                                                                                                                                           |
| G1 2:05 – 2:55<br>50                                                                                                                                                                                                                             | E1 1:50 – 2:50<br>60                                                                                                                                                                                                                               | E2 2:05 – 2:55<br>50                                                                                                                                                                                                                             | F3 2:00– 2:50<br>50                                                                                                                                                                                                                              | G4 1:25 – 2:15<br>50                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                  | Faculty and Staff Meetings<br>3:00 – 4:00                                                                                                                                                                                                          |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  | Student Early Dismissal<br>Teacher Collaborative Time                                                                                                                                                                                           |

The academic year is divided into two semesters, with full year courses yielding 1 credit and half-year courses yielding .5 credits. The master schedule of classes is completed by the Assistant Headmaster in conjunction with the guidance department. Every effort is made to ensure that students get the courses for which they registered. With seven blocks available to each student each year (in some cases eight blocks for students choosing a Z block class) there is ample opportunity for all students to earn the 22 credits necessary for graduation. The schedule also affords a 40-minute advisory T-block once a week, which is used, for the advisory program and other homeroom-type needs. Integral to the schedule is the X-block session of 40 minutes every Thursday in the middle of the day as an opportunity for students to seek academic support and/or participation in numerous clubs and activities.

In the course of the past few years the school has examined many different types of extended day schedules, which could effectively increase the number of students served by the current facility. Such changes would entail considerations of after-school activities, family responsibilities of students, the teachers contract, and/or the lack of space available for blocks in the middle of the day when all students would be competing for the same classroom space. Even with "open campus" the numbers of students who would be required to have multiple free blocks in the middle of the day to accommodate the space needs of 2600+ students would greatly exceed the abilities of the campus and would result in many undesirable outcomes.



# Brookline High School – Expansion/Renovation Process

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## GRADUATION REQUIREMENTS

In order to graduate from Brookline High, students must satisfy the following Graduation Requirements:

### Minimum Course Requirements (22 total credits, including the following 19 required credits)

|                                                                                                   |                                                                                                                       |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| English: (4 credits)*                                                                             | four years (some students will achieve some of these credits by studying English as a Second Language)                |
| Mathematics: (3 credits)                                                                          | three years                                                                                                           |
| Science: (3 credits)                                                                              | three years                                                                                                           |
| Social Studies: (3 credits)                                                                       | three years (World History I and II, U.S. History*)                                                                   |
| World Languages: (2 credits)                                                                      | two years in one language (some students will achieve some of these credits by studying English as a Second Language) |
| Career and Technology Education, Community Service, Performing Arts, and Visual Arts: (3 credits) | three years distributed across at least three of these program areas                                                  |
| Health and Fitness: (1 credit*)                                                                   | Health and Fitness must be taken each year                                                                            |

Three additional credits in any subject area

Successful completion of MCAS English, Math, and Science. All students are required to take the statewide assessments.



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#### 2.4 TEACHING METHODOLOGY

##### A. Administrative and Academic Organization/Structure

###### I. Current Organization

Brookline High School is structured as a traditional public, 4-year comprehensive high school both administratively and academically. The current academic model continues from earlier eras with departments housed in clusters. Students very clearly experience the departments: Athletics, Career and Technical Education, English, English Language Learner, Health and Fitness, Mathematics, Performing Arts, Science, Social Studies, Special Education, Visual Arts, World Languages...and students would recognize that the offerings they choose from fall distinctly under these headings. Teachers in general are housed in close proximity with other members of their department both in terms of classroom location and, where possible, office location. This serves us well in developing departmental goals and professional learning, while limiting in many ways opportunities for interdepartmental professional learning. Teachers would be likely to first identify themselves by their department before identifying themselves as part of the larger high school. Departments are led by "curriculum coordinators" who run biweekly meetings, manage curriculum, observe and support teachers, and serve as the first level of administrative response for behavioral issues in the classroom. The administrative structure continues in traditional fashion with associate deans, deans, assistant headmaster and headmaster.

Academic programming is offered based on grade level with students generally selecting a Standard, Honors, or (in mathematics and world language) Advanced level within the traditional academic departments. Brookline by policy allows students to select their own level, though such decisions and recommendations typically come from teachers and counselors. BHS has a long and proud academic history with a large number of students graduating and attending most selective and highly selective colleges. Brookline's long reputation for rigorous courses and excellence in teaching is well founded and is shaped in part by the rich tradition and history of the institution, as well as the proximity of the community to the Longwood Medical Area, MIT, BU, BC, and Harvard University. The high school also recognizes that there are many pathways toward success and offers a variety of programs and a variety of teaching methods to broaden and deepen the pool of what it means to be accomplished at BHS. Elective courses (within the CTE, Performing Arts, and Visual Arts) are unlevleed. Special education is primarily implemented via inclusion using the co-taught model, and the school has numerous substantially separate programs in keeping with the belief that students of all types should remain in the high school when possible.

Academic departments are housed in offices. In some cases, teachers have desk space within or near the main departmental office. Typically the departments have a common space they use for lunch and collaboration. The school schedule allows for common lunchtime of 30 minutes for all teachers within their department. This year we are experimenting with a schedule, which allows for each department to have a common



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unassigned block with the goal of furthering collaborative time.

All ninth and tenth grade students participate in an Advisory program which helps acculturate students, build community, and support students academically and socio-emotionally. Advisory incorporates academic guidance and planning, community building, identity development, and cultural sensitivity. BHS currently offers a mostly integrated approach to student support via a dean's team model as well as several alternative programs. As noted in this plan's guiding principles, core values and cultural strengths, BHS views knowing students well and developing relationships over time as foundational. Deans and program coordinators work with teams of guidance counselors and other student support personnel to cultivate relationships that encourage personal accountability, high academic achievement and good citizenship. These student support teams work closely with faculty, staff, parents, and students to foster a culture of that allows all students to feel ownership of school culture and community. Through class and school-wide assemblies and a highly intentional advisory program serving ninth and tenth graders, the school promotes individual student responsibility in ways that ensure safety and encourage unity in our diverse community.

The overwhelming majority of the school's students are attached to one of the school's two dean's teams: ninth and eleventh and tenth and twelfth. Each team is led by a dean of students and consists of two associate deans, four guidance counselors, and an administrative assistant. Importantly, students are assigned both a dean and a guidance counselor and these support people follow students through the four years at BHS. (Thus the ninth and eleventh grade team for 2016-17 will be the tenth and twelfth grade team for 2017-18.)

Beginning in tenth grade, students can seek entry – via admissions processes and/or a lottery – to one of two general education alternative programs: Alternative Choices in Education (ACE) and School within a School (SWS). ACE currently has a 48-student capacity and serves as a competency-based alternative to the regular Brookline High School curriculum. ACE is the most recent evolution of the alternative high school program that has existed for almost 40 years at the high school recognizing that the traditional pedagogy and structure of the larger school does not work for all students. BHS recognizes that it's necessary to provide alternatives for students to experience HS in different ways. In some ways ACE is a methodology and approach to re-engage students in their academic and social environments within BHS. SWS attempts the same things with students who are heavily invested and engaged and active in their academic and social world, and provides for them a democratic and less authoritarian structure both academically and administratively. Both programs are the high school's embodiment of a long held philosophy that there is not just one path to success, as well as the long school, district, and town commitment to educational equity.

The dean's suites are each equipped with separate offices for the dean, associate deans, and guidance counselor, a reception area, and a conference room. ACE has a reception area and conference room along with office spaces for the program coordinator and guidance counselor. SWS shares a secretary with ACE and has office space for her and for the program coordinator. As the school's student population has grown over the past few years, the school has tried to distribute office spaces throughout the building so that all students, faculty and staff have relatively easy access to administrators and support staff.

BHS has a wide breadth of social emotional supports: social workers, substance and violence prevention



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counselors, nurses, psychologists, most of whom serve on dean's' teams and various other student support teams. Currently, these student support services do not have many adjacencies, making collaboration between and among them challenging. As a result, there are sometimes redundancies and gaps in student support at the high school.

In addition to the dean's' teams, ACE, and SWS, Brookline High School has several other staff members and/or programs that help monitor and support students. The METCO program has a classroom for academic support and an office space for its coordinator. Steps to Success is a private non-profit organization that works with the Public Schools of Brookline to support students who live in public housing. PSB employs three program advisors at BHS who work with students in the Steps to Success program, often within a large academic and meeting area. BHS also has an international student coordinator who has meeting space and a student lounge in the main office. Each of these student support programs is located in the center of the school, close to the atrium and main office. These locations provide students with havens of comfort and support. As we move toward a more integrated, unified approach to student support and to encourage unity, determining how best to give all students access to and/or interaction with these smaller student groups and programs is important.

Special Education services almost 20% of the students in the school and strongly favors inclusion. The majority of students served use the co-taught teaching model in one or more of their subjects along with Learning Centers. The inclusion philosophy extends to students in our community and postgraduate programs that are integrated on the campus and allows participation in the daily life of the larger high school. Our commitment and in-district programs, along with the expertise of the specialists we employ, allow us to run programs and offer a continuum of services that furthers our goal of inclusivity.

## II. Proposed Changes and Why or Statement that No Changes are Proposed

As Brookline High plans for rising enrollment, the school must expand significantly, and in this expansion determine the best ways to make a large school feel smaller. By the 2018-2019 school year we will be overcrowded to the point that we will have to make compromises. As the school will necessarily prioritize classroom space, the impact will most directly be felt on common spaces, teacher meeting spaces, and program-specific spaces at the high school. In the past 12 months numerous town and district offices and programs have been relocated outside of the high school allowing the current population of the school to be satisfactorily housed; nevertheless, very quickly as we continue to grow we will be out of space for classrooms. While the high school is not yet at a historic high in terms of population, it is approaching a historic high for the ratio of students to available classrooms. This is important to keep in mind in the short-term as many of the things that make Brookline High School what it is will be potentially impacted by growth. The level of service/rooms necessary for 2000 students in 2016-17 considering special education needs, tutorial, small group learning environments, common spaces, etc. in many ways exceeds the level of service/rooms needed for the 2400+ student maximum population in prior years.



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As noted above, both academically and administratively, the model for success at Brookline High School relies on the close connection of adults and students. It is paramount therefore that we find ways to retain an atmosphere where students feel connected to adults and vice versa. The great fear is creating an anonymous sea of 2600+ students where both students and teachers feel marginalized and disconnected from the community. It is also important that all students have equitable access to the school's many academic offerings, as well as co-curricular and athletic opportunities. This supports the school's on-going commitment to its five core values: high academic achievement for all students, excellence in teaching, understanding and respect for human differences, collaborative relationships, and educational equity. As it is a given, it is easy to overlook the importance the current building and campus has in the creation and maintenance of these core values to the Brookline community and to the high school. The structure of our academic offerings and the space given to teachers and students, in the form of classrooms, common space, libraries, etc. fosters the high academic achievement for all students. The space given to teachers, both physical and professional, supports excellence in teaching. The understanding that there are multiple pathways and forms that success can take, and the diversity of academic and co-curricular offerings the space at BHS allows, is fundamental to our understanding and respect for human differences. The recognition that teachers are better when given space and time to collaborate with each other, and that students are better when given space and time to collaborate with each other and with teachers is embedded in our commitment to collaborative relationships. Educational equity comes from commitment on the part of the staff and the school to build spaces that enable all students to recognize Brookline High School as a safe and caring environment where all students are given the support needed to succeed. Each of these core values is potentially threatened by expansion.

**Therefore change is necessary both academically and administratively.** If we grow another 40% and add 40% more space we will not be the same only larger. If this growth is addressed by adding only classrooms, we will lose so many of the characteristics which allow Brookline High School to serve students well academically and socially, while still retaining a safe and secure high school for all. Therefore, it is critical that expansion plans also address the need for teacher collaboration space, co-location of student supports, and an overall campus-wide plan which considers how to make a larger more complex environment seem smaller, closer, and more welcoming. While the current campus is truly an accident of 170 years of growth and expansion, the next phase of this 170-year plan must take a look at the campus as a whole in creating any solution. A solution that merely adds additional classrooms at a nearby location will lead to the degradation of all of our core values. However a plan for an integrated campus including the current buildings, new building(s), Cypress Field, parking, and the community is something we believe will succeed in addressing our values of high academic achievement for all students, excellence in teaching, understanding and respect for human differences, collaborative relationships, and educational equity.

### Contemplated changes to the structure of BHS

Over the course of the past three years there have been many scenarios for growth contemplated by the faculty and staff of the high school, as well as representatives of parent and town groups. As part of each stage of this process we have considered carefully how well any of the proposed configurations of a future high school would align with our vision and understanding of what makes BHS successful. While we are not making final



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determinations for which one of these structures will ultimately serve the students, faculty and town best, we do believe that in order to retain the key components of what makes BHS so successful, certain possible configurations of the future high school are more in line with those characteristics than others.

The models we have discussed as part of this process include the following:

- 1 school on the current site with a satellite of between 500 and 800 students at a different site
- 1 school within the current/expanded BHS site
- 2 high schools
- 4 distinct schools housed within the current/expanded BHS site
- 4 distinct schools with 3 housed within the current/expanded BHS site and one in a satellite space

The process has been one of aligning these potential models with the guiding principles, core values, beliefs, and learning expectations the school has identified. Additionally, of course, come the spatial and financial constraints facing the town in the project. We recognize that given unlimited resources and space our approach could differ from what we present here. Much of the process did involve visioning and conceptualizing without regard to these considerations. However, at this point in the process, we must actively evaluate these constraints as a part of the process. Most towns in the area facing similar demographic issues have chosen to build an entirely new school. Invariably this is done on the playing fields and parking lots of the current schools and allows for relatively smooth design and construction phases. As much as we love the current campus, if it were a possibility BHS would likely follow this route. While a completely new building would allow for significant technological and structural advantages, we believe that expansion of the current coherent campus of BHS, with that expansion addressing the needs identified throughout this proposal, will allow us to continue to build on the long tradition of excellence at BHS.

This is a key to understanding the high school's current thinking about expansion. We do not believe that the answer to what will make a 2600 person high school work comes from the shape of the walls that make up the high school. We believe a 2600 person high school can and will work because of the people and structures inside of that school. Building more rooms does not solve the problem. Turning solid walls into glass walls does not solve the problem. Moving 600 students from here to there does not solve the problem. The answer comes from understanding what we do and how we do it well in creating a solution that incorporates the necessary physical space, academic environment, and administrative structure that allows Brookline High School to continue to be the valued institution that has served the town for 170 years.

Therefore we ask the architects to focus on one of two possible solutions for the HS:

#### **1 school on the current site with a satellite of between 500 and 800 students at a different site**

The high school has experience with a satellite campus, from the construction period in the late 90s when a successful ninth-grade campus was operated at the Old Lincoln School. In many ways we like this idea giving an independent and unified opportunity for students arriving from the district's eight K-8 schools a chance to acculturate and have a unified ninth-grade experience. If sufficient space is available to work this option we believe it could be successful, though large questions remain about affording ninth-grade students the full range of academic opportunities they would have as part of the main campus, as well as how we would incorporate ninth graders into the broad variety of co-curricular, extracurricular, and athletic offerings so



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integral to the high school experience. The ninth grade small school would also offer students closer supervision, a focus on academic and school habits, and a sense of community that fosters the school's three mantras: freedom and responsibility, growth over time, and bringing our best selves to school. Large questions also remain about how transportation and connection between the satellite campus and the main campus would be achieved. The HS would remain largely unchanged (around 2000 students) with the satellite ranging between 550 and 700 students. Much more research is required to determine if this standalone ninth-grade model could work over the long term.

### 1 school within the current/expanded BHS site

For a long time this was just seen by administration, staff, and the community as too impractical—it was just too big. However after experience and research talking with other comparable districts with schools this large we now believe that this model is possible. The heavy emphasis would be on the change necessary within the walls of the high school in how we would structure ourselves academically and so that close connections with students would be maintained. Creating opportunities for the ninth-grade students to have a thorough and effective transition to the high school would remain essential and a focus of the design. We would look at every aspect of the school's organization from the load of guidance counselors to the structure of the Deans' teams, to the way we organize our academic departments. In the end we do believe we can create a viable 2600 person high school at the current campus that retains the attributes of the high school that have been long respected, admired, and effective. Further, we keep broad and varied academic offerings, cultural opportunities, athletic opportunities; we retain equitable access to all BHS offerings; and we avoid scenario where one program/house/school becomes more desirable. The school would by its nature be different-- as the academic and administrative structures would evolve to meet the changing needs of this environment.

The true business of the school is in the teaching and learning that happens in classrooms. The sections that follow therefore represent the true vision for the educational plan of the high school as they are plans and vision for what that education will look like in the coming 50 years. Our key takeaways from these individual department sections are:

- The need to consider the campus as a whole in any renovation or expansion plan. From athletics to academics, from food service to the housing of our alternative programs, the success of the high school project will rely on creating a unified campus for all users. Whatever building(s) is added to the campus, or whatever satellite space is added, it is vital that there still is the feeling that one is at the high school from any of the buildings. We do not want to compartmentalize any department or activity, rather we want all locations on the campus to feel it they are part of a unified whole. An important phase in this would be the central location of Cypress field, which has long been neglected as the centerpiece of the campus. By renovating and rethinking the use of this field, we believe we can create a center hub of the campus and bring a radiant connection to the disparate buildings of the campus.
- The need for a big school to retain the small school feel. This is significant in the classroom where teachers and students should feel connected, as well as in the hallways, the cafeteria, and all areas of the school. Any expansion that allows students to feel less connected to the school and less connected





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to their peers should be resisted. While some of this is clearly administrative and structural, we believe that the architecture of the school will also play a large role in how students perceive their experience. Small school feel is that sense of connection and identification with one school. It is the sense that each student is known by adults and by peers, and the feeling that one is connected and important within the school community.

- The need for flexible collaborative spaces rather than spaces that are devoted to a single task (a.k.a. computer labs). Spaces that can be used in multiple ways and transformed quickly for other use are essential. Part of this is furniture, but part of this represents a desire from the departments to free themselves of the idea that they "own" certain rooms. There is a recognition across departments that while this self-serving way of seeing space in the building protects what is theirs, in reality this way of viewing space hinders and inhibits creativity, collaboration, and 21st-century learning. The most common need seen in these sections is for spaces that allow for larger, mixed groups of students (led by two to three teachers over a few days) to gather in a larger space and to then separate into smaller groups for collaborative work on other days, as a way of promoting the flexibility and adaptability we recognize as essential 21st Century skills. Some of these could be explicitly designed as makerspaces--workshop classrooms in which students could be using a wide variety of hands-on activities to support academic learning and the development of a mindset that values playfulness and experimentation, growth and iteration, and collaboration and community.
- The need for open and unfettered access to technology. We do not know what form that will take in the future, but we do know that we will need high quality whiteboards to display the technology, varied and open architecture to upgrade the point of connectivity to that technology (for example, when USB changes to something else we do not want all of our tech to be orphaned). In all cases the need for a one-to-one environment is noted or implied as a necessary step.
- The need for better ventilation. There are large sections of the room building where at certain times of the day for several months of the year, teaching and learning is diminished because of inability to adequately ventilate and therefore cool the room. This has to do with the inherent design flaws of the windows, which may have worked as single pane casements in the past, but as modern double pane windows are just too heavy to be operable in a school environment. In short, it is very hard to learn in the absence of A.C. when room temperatures rise above 80°F.
- The need for classes to remain at sizes allowing for collaboration and connection with teachers. Much of the 21st century learning outlined below is predicated on teachers fostering environments where students can collaborate and explore within the classroom setting. Whereas the old days of rote instruction may have allowed for some classes to grow quite large, learning today is different. Teachers need to be more flexible and differentiated in their approach, while students need increased recognition and attention that happens best when class sizes do not exceed 25.
- The need for further evolution of handicap accessibility around the entire campus. This could occur as part of a larger review of all aspects of "accessibility" on the campus. As we grow and incorporate all types of learners we want to be sure that there are fewer impediments to access for all students.



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### ENGLISH

#### Curriculum/Service Delivery

The mission of the BHS English Department is to teach all students to think critically and creatively, to read carefully, and to write well. In our classes we foster relationships, engagement, and confidence. Students interact with a variety of texts and with one another, construct meaning, expand their powers of reasoning, strive for excellence, and cultivate the habit of reflection. Teachers use a variety of teaching methods from large-group to small group to performance to one-on-one conferencing. The responsibility for learning gradually shifts from the teacher to the students, who learn to use their language arts skills as tools for independent, lifelong learning. Writing instruction is at the core of what we do, and all English teachers hold writing conferences inside and outside of class time. These currently take place in the classroom, in the hallways, and in teacher offices.

We are committed to exposing students to the best that has been thought and written so that students appreciate the power and beauty of language; we are also committed to using language arts to explore new directions and new media. Our senior courses in particular allow students to study a particular interest in more depth, such as creative writing, fiction and film, public speaking, or an independently chosen senior project.

We share the Humanities computer lab with Social Studies, where students do research, draft papers, work on group projects, write in-class essays. Our central English office connects directly to the Social Studies department; we share a conference/lunch room and an administrative assistant. This Humanities contiguity has worked well in terms of encouraging collaboration and reducing the silo-effect. In the past several years we have developed courses in partnership with Social Studies, and we hope to continue and expand our interdisciplinary work.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

Due to the variety of reading, writing, and discussion activities in an English class, we need classrooms with multiple whiteboards, electrical outlets, mounted projection, consistent internet connection, light and flexible furniture that can be moved and grouped in various ways. As a department we need more central storage for books and equipment. If we will someday have student computers in every classroom, as would be ideal, we will need to have the space and security to store them there.

An adequately sized and equipped Sagamore (school newspaper) Room/Publications Center that students can access during the day is indispensable to the continued success of the student newspaper and to student communications more broadly; we hope to expand the number of students involved in journalism.



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More spaces to conference with students without disturbing others or being disturbed would enhance our ability to individualize instruction.

In our attempt to create a culture of readers (and not just screen-users) at Brookline High, we would like to encourage the creation of relaxed spaces conducive to quiet reading. Comfortable armchairs away from distractions, including screens, would serve this purpose.

Teachers often invite speakers – poets, writers, scholars, journalists, entrepreneurs – to come to the high school. There are also drama productions, senior project presentations, and other events that ideally involve somewhat larger audiences/participants in an appropriate space. It would enhance our program to have access to at least one larger space where two or three classes could gather to attend a novelist’s writing workshop, to listen to a scholar discuss literature, to participate in a poetry slam.

Many teachers display student work in their classrooms; however, we would like to have more venues to showcase student writing or artwork more publicly.

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### Math

#### Curriculum/Service Delivery

The goal of the math department is to help our students gain an appreciation of math in their lives through a balance of computational fluency, conceptual understanding, and problem solving. In addition, in order to solidify and deepen understanding, we require students to communicate the concepts they are learning both in written and oral form. To achieve these goals we present a variety of courses at different levels, balancing direct instruction and student-led exploration of mathematical concepts. Pedagogy is based less on teacher instruction than it is on demonstration of knowledge by students.

The math curriculum balances content with the Commonwealth's Standards of Mathematical Practice. These practice standards include perseverance, attention to precision, abstract and numerical reasoning, construction of viable arguments, critique of the reasoning of others, mathematical modeling, use of appropriate tools, structure of mathematical expressions, and pattern analysis. A collaborative learning environment best supports these goals.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

The effectiveness of our classes is limited in our current configurations by three main factors. Our small inflexible classrooms hamper the ability of teachers to modify and differentiate instruction. There is a clear need for larger spaces with more flexible arrangements. The second limitation is insufficient technology. While the technology has improved in connectivity and consistency, math, more than most subjects, is well served by a one-to-one environment because in the 21st century much mathematical exploration, both in high school and beyond, takes place electronically via graphing and algebraic programs. For students to become effective mathematicians, to be computationally fluent, to understand and communicate math at the conceptual level, and to be good problem solvers, consistent and pervasive technology is a must. In particular, one of the goals of the math department is to incorporate coding into all of our math classes. In order for this to happen we must have machines available to all students at all times. Third, and perhaps most significant, math instruction is limited by classes that are too large. As our enrollment grows, the limits of our facility will drive larger class sizes. Over-sized classes limit teacher effectiveness and prevent the type of student led exploration we see as fundamental to the BHS math experience. As classes grow, students' ability to share, model, and demonstrate knowledge will suffer. Teachers' abilities to differentiate instruction -- and ultimately to create environments that foster thoughtful mathematicians -- depend on reasonable class sizes.

The way we teach math requires classroom spaces designed for easy collaboration and communication. To that end our ideal spaces for teaching and learning have all or most of the following characteristics: multiple writing surfaces so students can easily move around the room and share their work and thinking in a variety of ways, flexible furniture allowing quick changes to accommodate a variety of teaching strategies, spaces within



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the larger school to accommodate two or three classes, and shared smaller spaces where teachers can have individual or small group discussions with students. Furthermore, math teachers make regular use of the mounted projectors and document cameras that are located in in each math classroom. Both of these devices rely on effective and consistent connections.



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### Science

#### Curriculum/Service Delivery

The science department strives to inspire all students to become informed, curious, life-long learners about the world around them. Inquiry-based methods encourage students to ask questions about the natural world and use logic and evidence to find the answers – the process used by scientists. Students learn and apply this scientific method (hypothesis, experimentation, data collection and analysis, and making conclusions) throughout their education. The engineering program teaches students the engineering and design process (research, conceptualization, preliminary design, prototyping, detailed design, and production) in this growing program as well. A rigorous science curriculum builds upward through the grades with a sequence of cumulative skills interwoven with subject-specific content, and integrates with other areas of the curriculum to provide a complete learning experience for all students. Skills involving observation, critical thinking, effective verbal and written communication, manipulation of equipment, and applying technology are woven throughout the curriculum. Following graduation, our students understand science as a human activity, and they recognize the relevance of science to society as they grow into concerned adults. They are well prepared for a career in science or engineering, and life in the world of their future.

Teachers are moving to more student-centered and personalized learning, but are significantly influenced by current conditions that limit opportunities for more contemporary pedagogical methodologies. The Science department designs and implements curricula intended to help students master core academic content as well as develop important 21st century skills. Opportunities for authentic, relevant, real-world learning experiences are also woven into core instructional programs. However, inflexible classrooms designed for more traditional delivery methods limit teachers.

A tradition of high success rates on multiple measures (from MCAS to AP participation and scores) for part of the school population may, in some ways, hinder educational experimentation and innovation. Further, our traditional learning spaces make more varied presentations and diverse opportunities difficult and, worse, foster the perception that science is not for everyone.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

The goal is to move towards even more student-centered and personalized models that incorporate various pedagogical methodologies. Spaces that allow for larger, mixed groups of students (led by two to three teachers over a few days) to gather in a larger space and to then separate into smaller groups for collaborative work on other days, would promote the development of 21st Century skills. Flexibility and adaptability within the classroom and through adjacencies are key elements to supporting a student-centered learning experience that is inviting, engaging, relevant, robust, dynamic, and inclusive.

Science labs currently include traditional, heavy benches that take up much of the room. Most lectures are



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conducted within these same (undersized) rooms. Small classrooms with single misplaced teaching walls limit flexibility, making differentiation within a class difficult. Though teachers are able to move from lecture and discussion mode to experiments, the room sizes and layouts make the transition difficult. Inflexible and traditional placement of some fixed furnishings, such as laboratory tables, structural columns, doorways and obsolete closets, limit group work because of safety concerns. Some of the rooms were originally designed for small group lectures. The sizes and layouts of the rooms are also not conducive to collaborative interdisciplinary project work, and do not allow for student movement throughout the class time.

Preparation areas are currently limited to a few stockrooms. Teachers must take materials from these insufficient storage areas, share them across multiple rooms, and then return them to the stockroom. This transfer is inefficient, and leads to either the purchase of classroom sets of equipment, or having equipment dispersed across various classrooms. Chemical storage is centralized and secure, but there is limited space to prepare the chemicals in the central location. This means that preparing and storing chemicals to be used within a classroom during a short time period is less secure, and must be performed in the chemistry labs. This is a limitation because many chemistry classes perform short investigations with micro amounts of chemicals within the classroom, as more inquiry-based lessons are being incorporated.

Students should be able to showcase their learning, growth, and mastery in a variety of ways: preparing written reports, participating in debates and simulations, creating projects with social impact, and presenting experimental findings orally or by using multimedia in front of peers, teachers, and families. Throughout their studies, students also need to be able to make ‘real world’ connections through project-based assignments that are relevant to current issues, and through interdisciplinary opportunities to talk with and learn from professionals and experts from the community. Ample wall space, exhibition space, storage space, lecture space, teacher preparation space, and flexible classroom spaces that can support small to large-group instruction (100 or more students) are all elements that can further enhance instructional practices.

Computer Science and Engineering classes require a space with integrated technology, tables that can be arranged in flexible groupings, adequate storage for portable technology and devices, and laptops for every student. Flexible, maker-type spaces would provide students with the opportunity to build hardware as well as program software, and work with community partners regularly to gain real-world exposure and experience. There are no current spaces that can support burgeoning collaborative high-tech programs, nor to support activities such as the Robotics Team, which is advised and supported by a Northeastern University (not BHS personnel). The highly popular CTE Medical Careers course is limited by the need for students to travel to the Longwood area; if equipment were placed on the premises, then students who cannot travel to the Longwood could have the opportunity to take this innovative course, and teachers could collaborate across the CTE and Science departments.

Science and Engineering classrooms need to be flexible spaces which can accommodate lecture and lab work that would enable more academic cross pollination with other programs, particularly Math and CTE. Appropriate program adjacencies are critical to supporting this interdisciplinary work. Lab work and student research will be integrated into all lessons rather than the traditional separate lecture and lab portions of class. As already stated, the flexibility between a lecture and lab space is vital to provide for seamless integration of the two. There should also be greater transparency between common space and between classrooms, which



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allow students to work in areas with informal supervision of students as they work in more independent and small group contexts outside of the normal class time. Rooms also need to be equipped with proper safety equipment, several sinks, peripheral and/or ceiling utilities, ample storage, gas lines, fume hoods, and cutting-edge life and physical science lab equipment.

Other possible departmental configurations, where students work on STEM projects in a separate building within a moderate walking distance, would be possible with schedule and programmatic changes. However, increasing distance from the main building may correlate with an increased disconnection among staff and students. The current departmental organization, which limits interdisciplinary activity and project-based learning, would be further negatively impacted.

### Social Studies

#### Curriculum/Service Delivery

The goal of the Social Studies department is to engage all students to think critically and to understand diverse perspectives about the human experience. The knowledge, skills, and capacity for judgment we strive to teach in the Social Studies Department are, we believe, essential to achieving the purposes of both humane individuals and a democratic society. Our humanity requires that we know the major historical events, the political and economic institutions, and the people and ideas that have shaped our community, our country, and our world. Our democracy requires that we act as responsible citizens, and therefore that we interpret and judge the choices and practices of individuals and societies, and that we take responsibility for our own. Active citizenship also requires that we acknowledge and embrace the fact that the human world has not always been as we find it, that it can and likely will become something dramatically different still, and that it is, in the end, our burden and privilege to determine the shape of our common future. In short, we require our students in Brookline to learn about and from human societies, past and present, near and far, so that they can become aware of their own place in the world, as thoughtful, responsible, free people.

The Social Studies Department teaches a broad range of topics and themes, using a variety of pedagogical approaches, in order to engage all students in this enterprise. We share knowledge about history and society through primary, secondary, and tertiary sources, oral and visual presentation, and guided research, and teach our students the skills to access knowledge in each format. Our active classrooms require students to participate in simulations and debates, small and large-group discussions, and individual and small-group projects and presentations. We use digital technology extensively for both classroom activities and to support and scaffold the research essay each student writes in our three required yearlong classes. Our optional courses introduce students to the range of disciplines in the social sciences and challenge students to become active participants and leaders in the larger community.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

We propose three changes that are common to other academic programs at BHS and one that is particular to Social Studies. Like other departments, we need more flexible space and furniture to accommodate





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project-based learning, student presentations, guest speakers, and other non-traditional learning activities. We also will need to provide storage and display spaces for student work. Second, like other departments and programs, we need to equip all of our classrooms with the digital technology necessary for 21st century learning and teaching. Right now, four of our classrooms have dedicated Chromebook carts that allow teachers to use computing technology and the Internet appropriately, as classroom and research activities require. Every academic classroom needs a device for every student. Third, as the Social Studies department grows along with the student body, we will need additional work and meeting space for a growing faculty.

The Social Studies department also needs new, dedicated spaces for three growing programs housed within the department. We offer three innovative courses that function as hubs for student activity in the larger BHS community: the Social Justice Leadership Workshop, the Global Leadership Seminar, and the Racial Awareness Seminar. Each sponsors trips, guest speakers, extra-curricular meetings and activities. Moreover, as BHS grows, each has the potential to become a learning community that brings students and faculty together around common interests, helping to make a large school feel smaller. These programs will need dedicated space in order for them to maximize their impact on student learning.

### World Languages

#### Curriculum/ Service Delivery

In our studies of modern languages, the goal of the World Languages Department is to create immersive opportunities for authentic, relevant, real-world learning experiences so that students develop confidence and expertise in their ability to communicate across linguistic borders.

In our Latin program, we emphasize cultural and historical comparisons between modern and ancient worlds through close study of literature and authentic artifacts.

In the process of learning languages students develop cooperative learning strategies and gain increased confidence in their ability to debate, problem-solve, present, listen, and converse with others. Students regularly showcase their projects, “act” and “move” in simulated environments (such as ordering at a café, doing physical activities while learning health vocab, exchanging goods at a market, cooking, dancing, painting murals, etc.) Guest speakers, artists, and performers representing the cultures studied visit our classes to share their expertise.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

The rigid spaces we use limit our ability to quickly and easily transform our classrooms to accommodate a variety of projects, simulated environments, and group configurations. This makes cultural immersion type projects such as cooking and art more difficult. Flexible space allowing for these activities and the storage of materials necessary for such activities would greatly enhance the teaching of world language. Further, having easier access to a large performing space would enable our students to show plays, or invite musicians, dancers,



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and other performers.

With growing numbers of students and the limitations of space, our class sizes are growing. As class size grows it becomes harder for teachers to provide quick, effective, and personalized feedback to students. As class size grows students' ability to practice languages diminishes, as does the ability for the teacher to guide group explorations and differentiation of instruction. For language instruction this creates a diminished environment.

The teaching of world language has shifted in major ways in the past 25 years due to changes in technology. What used to be recitation and repetition in front of the teacher has evolved into immersion and interaction with technology and one's peers. Therefore the department is reliant on state-of-the-art technology for language labs as well as research, practice, immersion in regional and international culture via video, and the ability to communicate via video conferencing with students from other lands. We currently have one wonderful world language lab – to do the job right we would need at least three such labs.



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### Special Education Programs

#### Curriculum/Service Delivery

The Brookline High School Special Education programs are delivered to a wide range of students requiring a broad array of programs and services to meet the varied needs of students with disabilities. Currently the Special Education Department serves approximately 350 students. Brookline prides its special education services and programs in serving the majority of students with disabilities within district. To this end, a continuum of instruction is provided in inclusion settings to those requiring a multi-tiered level of specialized and intensive support that is met in partial to substantially separate settings. Rigorous, robust programs and services teach students academic skills, facilitate social/emotional growth, address behavioral regulation, develop self-advocacy and perseverance, create independent learners, and enhance engagement in independent life skills.

Guiding principles are anchored in developing a growth mindset in students, building relationships amongst peers, and empowering students to understand their learning and how they can access and master all levels of the curriculum and life in the school and in the community. In continually assessing student acquisition of skills in all developmental domains, educators use specialized teaching methodology, differentiated instruction, and out of the box thinking to modify activities in order for all students to be independent learners and citizens.

The team of interdisciplinary professionals collaborates and integrates services for a comprehensive approach to addressing multiple student needs. Methodologies such as task analysis are used to develop individualized plans for students with disabilities. The focus for educators in all settings is to facilitate problem solving and critical thinking that is applied to all life skills. Teams use a thoughtful, intentional planning process to determine how best to deliver services and programs in the least restrictive environment.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

There are no spaces in the building that were purpose-built for the varied needs of our special education students. In all cases rooms from the original buildings have been transformed and modified in attempts to meet the needs of such students. While this has been successful there is a need for a top to bottom review of the programs that we have now and the programs we anticipate arriving in the future to determine how we can purpose-build spaces that will serve the multifaceted needs of our high school population.

Among the architectural needs we see are:

- A further evolution of handicap accessibility around the building. This would include modernization of the chairlifts and ramps to better serve students with mobility issues, redesigning egress from the



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fourth floor of the UAB, and a general review of what it is like for a student in a wheelchair to access all areas of the BHS campus.

- A life skills apartment which can serve across several programs as an educational and functional. (See description below)
- Purpose built and designed spaces for individual instruction in speech and language, as well as for working with school psychologists and other associated staff in a private one-on-one manner.

### **Community Based Program (CBC)/Bridge Program:**

These programs serve students with severe disabilities (including students who are cognitively limited and/or nonverbal and/or non-ambulatory). The focus of classroom instruction is to teach functional academics that can be used in real life situations. One to one and small group instruction is utilized throughout the day to optimize learning. It will be necessary for all spaces and equipment to be accessible. Access to rooms includes ramps built to code and large, handicap accessible entrance doors. This includes a large wheelchair access bathroom with a lift and a changing table that allows for adult assistance; room for PT and OT that includes space for appropriate equipment (e.g. standers, and other PT equipment). The program focus is on development of life skills, post-secondary employment, independent living, travel training, vocational training, and adaptive living skills. As such, the space also will need accessible kitchen and laundry facilities with accessible equipment (washer, dryer with exterior vent, oven and stove). Classroom space should include adjacent smaller rooms that may be used flexibly (e.g. quiet space, meetings with employers and agencies, one to one instruction in functional academics and adaptive daily living skills), capacity for SmartBoard and assistive technology/equipment including use, storage, and efficient Internet connections.

### **Co-teaching Classrooms:**

Inclusion practices are founded on the principles of diversity, individual needs, reflective practice, and collaboration. Our co-taught classrooms are served by two highly qualified teachers, a general educator and a special educator, working together with inclusive groupings of students, sharing the planning, organization, delivery, and assessment of instruction, in the same classroom. This partnership between the general and special educators requires integrated, collaborative spaces, including two teacher desks in the classroom, sufficient storage of materials, and efficient technology.

The ExCEL Program (Excellence in Community, Effort and Learning) serves students with emotional/social/behavioral challenges requiring a therapeutic environment. This is a substantially separate therapeutic learning environment where community building and self-discovery are emphasized in order to improve student academic behavior and performance. The program is designed for students who need daily structure, clear behavioral expectations, consistency and a smaller community. This requires space that balances academic and therapeutic needs. Classrooms need to be comprised of connected rooms with smaller breakout rooms that allow students private space, individual counseling, and small group activities. In addition, teacher offices are needed for highly confidential phone calls to families, staff, collaterals and wrap around service providers. Air conditioning is required to support students' self-regulation and sensory needs. Bathrooms should be in close proximity to classrooms. Therapeutic environment would include flexible



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lighting, comfortable furniture, and academic classrooms should be equipped as general education classes (e.g. science class has a sink). Capacity for technology and efficient Internet connection to support blended learning opportunities (online and classroom combination) and access to a Life Skills Model Apartment.

#### **Learning Centers:**

Learning Centers serve a wide range of students with mild to moderate disabilities. Learning Centers focus on specialized instruction to assist students in meeting the curricular demands of each grade. Specific services may include reading, math, written language, organizational skills, executive function and study skills, social communication and self-regulation skills. These classrooms require space for whole group instruction and flexible small group learning; desks with dividers/carrels for directed study; connected small offices for individual instruction, consultation, counseling and transition planning. This includes general learning centers, Pathways Program, and small group classrooms. Lighting control, storage space, comfortable and individualized reading and learning spaces all support students in Learning Centers.

#### **LAHB (Language & Academic Home Base):**

LAHB supports offer students access to the general curriculum with additional intensive interventions in reading and writing. Students also access a specialized, language-based learning center. LAHB students exhibit language-based challenges and demonstrate average to above average cognitive abilities; those who are self-motivated and independent benefit most from this model. These classrooms require space for whole group instruction and flexible small group learning; desks with dividers/carrels for directed study; connected small offices for individual instruction, consultation, and transition planning.

#### **Life Skills Model Apartment:**

This is a separate classroom space that is designed to provide a simulated daily living environment. The apartment should include a kitchen, living area, a large bathroom with shower that allows for adult assistance and necessary handicapped accessibility, a washer/dryer with proper ventilation, a bed for teaching making/changing bed, cleaning with vacuum.

#### **Psychologists:**

Suite of private offices for 4-6 school psychologists with acoustically soundproof walls for testing, confidential conversations with families, staff, and collaterals. A small waiting area/common space is needed along with storage for files, protocols, test kits, and files. Proximity to support staff would be helpful, as would a dedicated room for multiple school psychologist interns.

#### **Special Education Offices and Conference room:**

Need offices for administrators, ancillary and itinerant staff, clerical staff, and conference room to meet with 15+ staff, and for IEP meetings, family and collateral meetings, interdisciplinary collaboration to meet the specialized needs of students. We require the ability to project information visually for IEP meetings. The ETFs will have home base offices within the Dean's office suites to enable seamless collaboration with deans, students, guidance counselors, and families, as well as convenience and efficiency in conducting IEP meetings. Inasmuch, the ETFs will also require work space/offices within this main special education office suite in



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order to access and maintain compliance on student files housed in the main office, make private phone calls to families, physicians, agencies, and other collaterals associated with student cases, collaborate with special education colleagues and have direct access to special education resources and continuous professional development. File storage for 500+ students. Adequate HVAC for 12-month employees. Meeting room for smaller group meetings, less than 15 people. Resource area with books and therapy/classroom supplies. Storage for department supplies, printers, photocopy machine, fax.

### **SLC (Supported Learning Center):**

The Supported Learning Center serves students with challenges in social/emotional regulation. This is a home base classroom where students receive therapeutic support for emotional/social regulation that assists them in being able to engage, participate, and make effective progress in general education classes. The delivery of instruction and support utilizes a strengths-based approach, promoting self-advocacy and self-reflection for students. This therapeutic milieu classroom requires flexible space for individual and small group instruction, comfortable furniture, private rooms for counseling and de-stressing space. Small adjacent offices are needed for confidential phone conversations with colleagues, families, and collaterals.

### **RISE (Reaching Independence through Structured Education):**

The RISE program serves students on the autism spectrum who may require intensive, individualized instruction and support. It functions as a home base for students and supports students in general education classes. Classrooms require whole group instruction with small breakout rooms for students to access a safe zone, to de-escalate and self-regulate. Small adjacent rooms are required for small group activities, and individual/small group therapies/counseling. A Sensory Room, with sensory equipment for regulating behavior and sensory needs in close proximity, two-way mirror for observations/functional assessments. Locked storage space for staff belongings and student supplies/materials, and curriculum supplies. Office areas for teachers and BCBA's, allowing for confidential consults, phone calls, assessment and access to Life Skills Model Apartment.

### **Transitions:**

Serves students age 18-22 from all our specialized programs for teaching independent life skills, employment, career and college transitioning. These services are designed to help young adults with disabilities identify skills and interests, develop a range of career options, and ultimately secure employment in the community. Classrooms require flexible spaces for de-escalating students, self-regulation, and individual counseling. Educators' offices for confidential phone calls to employers, agencies, families, collaterals and student assessments, with common space/waiting area. Curricular programs for vocational tracks, beginning in 10th grade. Courses address skilled labor, trades, and apprenticeships. Access to Life Skills model apartment.

### **Related Services Programs:**

Physical therapy room with adequate space, ambulatory equipment, gait training, wheelchairs, strengthening and conditioning equipment, adult desk/chair. Access to life skills model apartment.



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Occupational therapy room with adequate space for suspension equipment, sensory regulation equipment and materials, tabletop workspaces, adult desk/chair, storage space. Access to life skills model apartment. Speech/language therapy rooms (2-3) with large table and 6 chairs, adult desk/chair, storage space. Sound proofing for testing and therapy.

AT/AAC specialist room for assessments, assistive technology equipment, adult desks/chairs, table and 4-6 chairs.

#### **Winthrop House:**

This public therapeutic day school (10 month program) is an off-site component of Brookline High School, providing a specialized therapeutic educational alternative for students whose social and/or emotional challenges have hindered success in a traditional high school setting. The goal of Winthrop House is to break the cycle of difficulties some students experience in school. With its low student-teacher ratio (currently 8:1), the program provides students individual support in an emotionally and physically safe environment, helping students build self-esteem, work towards academic potential, and experience positive peer interactions. Currently this program's capacity is for 32 students, and has all components and facilities as the traditional high school setting.

The future of Winthrop House will be affected by its current location, the Baldwin School, recently having been chosen as the future site of Brookline's ninth elementary school. This likely re-location provides the department, school and district an opportunity to maintain current strengths of the Winthrop House program while potentially moving it closer to the main campus. This would offer Winthrop House students more opportunities to take classes and become involved with high school clubs and activities. Students within the Winthrop House program require a physically separate environment as part of the therapeutic day school model.

In addition, the Public Schools of Brookline is considering expansion of the Winthrop House to include middle school grades in order to provide specialized therapeutic alternative as a means in which to provide services in district. Winthrop House current model requires four classrooms with a staff of 12 full and part time faculty. In consideration of a possible expansion to support middle school grades, an increase of three additional classrooms is being projected by the opening of 2018-2019 school year. In light of almost doubling the physical blueprint of the program – additional space will be necessary for team meetings and delivery of counseling services.

The projected expansion of this program would allow the Public Schools of Brookline to currently serve the specialized therapeutic needs of our students who are experiencing social and emotional challenges at an earlier stage of their education, reducing the need of out of district programs and tuition expenses.



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### ACE Program

#### Curriculum/Service Delivery

The ACE (Alternative Choices in Education) Program is a competency-based program within Brookline High School for up to 48 students (grades 10-12) who choose to be in a smaller educational setting where they can move at their own pace and engage in project-based and experiential learning. ACE provides a rigorous college-preparation pathway in which students are placed in multi-age classes based on their skill levels and content knowledge and can graduate once they have completed the required competencies for each content area. Students take two six-week academic classes at a time, averaging three courses in each content area in a given school year. They successfully complete a class by showing at least a basic mastery on each required benchmark and competency for that class. No letter grades are given. Rather, students are assessed on their levels of competency. When it is time to assess the student, ACE teachers offer a choice of performance-based assessments that, as much as possible, allow students real-world application of the skills. If a student does not meet a minimum level of competency - “basic competency” - in a class, they do not fail. Instead, they repeat it when it is offered next.

To allow students to work on their competencies at different paces, ACE staff intentionally infuse technology into their classes. All students in ACE have a Chromebook and many of their assignments require them to use Canvas, the BHS digital platform, along with Google applications to create and submit work.

In addition to the competency-based approach to learning, ACE is a program that intentionally builds a strong sense of community through team-building activities, whole-community meetings, advisory twice a week, and close involvement of families/guardians. Community gatherings are organized frequently to showcase student talents, celebrate student successes, and engage students in program decision-making.

In its current layout, ACE benefits from having its four content teachers in adjacent classrooms—all on the same small, discrete hallway that feels a little bit like an annex to the 2<sup>nd</sup> floor. ACE teachers report that they are able to seek out one another quickly and easily—communicating with ease about student needs. The students also report that they like having a discrete hallway that is just for their classes as it gives them a more enclosed sense of community and connection. Additionally, the ACE Program Coordinator and the ACE guidance counselor benefit from having their own separate office spaces where they can meet with students and/or families confidentially. These office spaces are also in close proximity to the ACE classrooms, which allows for quick, fluid communication between teachers and the Program Coordinator or guidance counselor.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

After just one year, the ACE Program grew rapidly in size from 25 students to 38. We anticipate the program will be near the school committee approved size of 48 in the near future. The current space is sufficient for





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this number, though the program would benefit greatly from access to a flexible collaborative space that would allow students from the program to work together in larger groups before breaking out to the smaller constituent units typical of the ACE classroom. As BHS mainstream gets larger and larger, it will be that much more important that ACE is able to continue to keep a small community “feel” And the shared collaborative space would be a large step in fostering that environment.

Anticipating the program will expand to include 9<sup>th</sup> grade and to increase its overall number to at least 100 students as it proportionally grows with the school, ACE would require additional classroom space as well as spaces for staff to operate, or more likely would need to move to a new location on the campus. Staff strongly believe it is important for ACE to remain on the central BHS campus, though not necessarily in the BHS main building. Students in ACE still take their electives, world language, and health and fitness courses in the mainstream so they need to have easy access to those classes. These are also the classes that allow them to still feel socially connected to their mainstream peers.

One of the core design elements in ACE is to help students prepare for the 21<sup>st</sup> Century by offering courses that are thematic and focus on developing skills more than memorizing content. It is also the vision for the program to incorporate courses that emphasize innovation and creative thinking. To facilitate this learning, ACE needs - or needs access to - maker-spaces to bring students together and provide them with the tools and creative space to do this. The term “maker spaces” usually refers to workshop classrooms in which students use a wide variety of hands-on activities to support academic learning and the development of a mindset that values playfulness and experimentation, growth and iteration, and collaboration and community – characteristics that are central to the mission of ACE. Maker Spaces would also support ACE’s commitment to blended learning by allowing students the chance to experiment with innovative technologies.

Just as ACE seeks to have a wide-open space on the inside that invites its own community to come together and connect with one another, it also seeks to have its own clear entrance and glass walls to the outside world to allow for full transparency and visibility. ACE can be an incubator of innovation and so it makes sense for the outside community to be able to peek through windows and see what is going on. Additionally, ACE will be seeking to develop a way for students to be able to get out into academic internships during school hours. Once these internships will be up and running, ACE will also celebrate the idea of having open doors that go out into the community and back into ACE.

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### Library (Educational Technology and Libraries)

#### Curriculum/Program Delivery

The mission of the BHS Library is to enable students to be critical thinkers, enthusiastic readers, skillful researchers and ethical users of information. Located just up the stairs from the main entrance of the building, the library can be seen as the heart of BHS, welcoming the entire school community and providing space, resources, and services to support the intellectual and social fabric of the school.

Many can recall school librarians of the past who were limited to a relatively narrow role in their institutions. In contrast, school librarians today--including those at BHS-- are instructors as well as collaborators with fellow educators in the pursuit of student learning, whether in the main library, technology labs, classrooms, virtual learning spaces, or the “real world.” BHS librarians also play a key role in promoting a robust culture of reading at the high school, using creative strategies to connect students with the library’s diverse collection of books in print, digital and audio formats. Representing a wide variety of genres and reading levels, the library’s collection supports assignments as well as independent reading for pure enjoyment.

We believe school librarian instruction and librarian-teacher collaboration result in students who successfully read and utilize print and digital resources for curricular and personalized learning needs. In collaborative classrooms and 1:1 sessions, BHS librarians teach students how to be thoughtful readers and inquiring learners who evaluate and use both print and digital information efficiently, effectively, and ethically, with the goal of developing lifelong learning and literacy skills. Librarians also lead the way in digital learning and literacies by acting as early adopters of new teaching and learning tools, in turn sharing the best applications and practices with students and providing formal and informal professional development to colleagues. As leaders in literacy and technology, BHS librarians are well positioned to connect teachers with tools that support differentiated instruction to every student in the school community through traditional and blended learning.

BHS librarians work with teachers in their classrooms and beyond--for example, on field trips to the local library or state archives. They heavily utilize a learning lab around the corner from the main library for classes and meetings. Formerly a traditional computer lab with desktops, the lab was recently made more flexible by swapping the desktops for a cart of laptops. The main library itself is a multi-use space and has long served as a “learning commons” rather than a traditional library. The library is one of the few social spaces in the school that has the room, resources, and atmosphere to let students gather, explore, and create. Upwards of 750 students visit the library daily, whether to use desktop computers, borrow technology such as laptops or



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e-readers, meet to chat with friends and work collaboratively, read a book or magazine, complete homework, or study in silence. The library also houses archives of the BHS yearbooks and the newspaper, which are used by individual students, staff, and alumni, as well as classes and clubs. In the main library, librarians are always available to provide research help, assist students in finding books to read independently, train and supervise a corps of 10-15 student volunteers, and hold small classes. Librarians also often work outside the library in their colleagues' classrooms, providing collaborative instruction on topics as diverse as locating primary sources, evaluating statistical studies, studying and creating documentary films, appreciating creative nonfiction, examining child development through picture books, or exploring careers in mathematics.

#### **Proposed Changes and Why, or Statement that No Changes are Proposed**

Responses to a recent survey of BHS students and parents about the library underscore the fundamental space/design requirements of the library: current demand, not to mention growing enrollment, calls for more of everything the space currently offers. In addition, the library needs an area dedicated to reading, on-site classroom space, and the flexibility to serve multiple purposes within an area at different times. Because BHS is a noisy, bustling school with an open campus, it's not surprising that the silent study space is maxed out most blocks and that students clamor for more quiet study areas. This may run counter to the trend toward the collaborative "learning commons" model taking over many school libraries. Yet a full 50% of surveyed students asked for more quiet study areas, and as the student population grows, learners will continue to need quiet spaces to work individually. At the same time, half of students surveyed requested more library space for collaborative study, and simple observation confirms that the library needs more areas for students to work in groups. One of the disadvantages of the current library is that the quiet and collaborative study areas abut one another. In this configuration, noise carries, librarians are forced to reprimand students talking enthusiastically in the collaborative areas, and the integrity of both types of space is compromised. The library needs physical separation and/or effective sound insulation between the different areas of the library. Because the relative need for different types of space in the library is always in flux, the floor plans should be flexible (for example with movable furniture, shelving, and barriers) so the library can more easily respond to changing demands on the space.

In addition to additional quiet and collaborative work areas, the library requires areas where classes can be held within our walls (rather than around the corner and down the hall, as is the current case with our tech lab). This would be served by two areas that could be flexibly configured as student workspace, large/small classroom area, a meeting space for students, faculty, and community groups, or a location for creative innovation (i.e. a "makerspace").

Despite the proliferation of articles about the "end of print" a few years ago, BHS Library will continue to



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need significant areas of the library devoted to shelving printed books. Surveys of BHS students consistently report that a substantial majority of students prefer to read fiction in print, rather than digitally. (In contrast, most students prefer to conduct nonfiction research using digital sources, while recognizing the value of nonfiction print books in the process.) The library anticipates the print collection shrinking by approximately 15 percent, which means preserving most of the current shelf space.

For the reconfigured library's many uses - reading, study, group work, classes, technology workshops, student support - it will rely on plentiful and easily accessible teaching and technological tools, such as charging stations, electrical outlets, mounted projection, and multiple printing stations.

### School-Within-a-School

#### Curriculum/Service Delivery

School-Within-a-School (SWS), is a democratic program for approximately 125 sophomores, juniors and seniors within Brookline High School. These students are expected to behave with maturity and take responsibility for themselves, both academically and personally. SWS is an "alternative" to the main school setting because the program operates expressly through democratic practices, rather than because the students or curriculum are inherently alternative. Goals for SWS students include assuming an increased responsibility for their education, sharing in the governance of SWS, practicing empathy, and making significant contributions to community building. SWS has been operating continuously for almost 50 years. Admission to SWS is through a lottery, and is open to all BHS students. In recent years, approximately twice as many students enter the admissions lottery, as there is room for in the program.

Most SWS students take two or three SWS courses each year, taught by SWS teachers. The students take their other courses in the main school, and the SWS program is completely enmeshed within the mainstream school. SWS offers challenging courses in English, Social Studies, Biology, and Chemistry. An Honor level is indicated by H on the transcript for all SWS courses. All SWS courses are designed to be demanding, both in course content and in the level of involvement and initiative required. Students are expected to participate actively and to help with curriculum development and instructional and classroom management. All English courses are heterogeneously grouped seminars with requirements that include careful reading of high school and college level texts, and following a carefully crafted writing process to develop voice and critical thinking skills. The SWS English courses are mixed grade levels and draw students from a range of ability levels. Social Studies, Biology, and Chemistry courses follow the curricular content of the main school with an emphasis on cooperative learning, independent thinking, theoretical understanding, and analytical skill building.

SWS students take part in a weekly "Town Meeting," the centerpiece of the democratic process in SWS. Each student and staff member has an equal vote in deciding educational and administrative policy decisions. An Agenda Committee of six students runs the Town Meeting. Topics range from admissions requirements and attendance policies to grading procedures. A Hiring Committee of students and staff members participates in



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the hiring process for new staff. A Peer Review Committee helps support students in academic trouble and can decide if a student must leave the program. Students are involved in planning and taking part in many activities from Orientation, to after school Paper Readings, to a Day Away and Overnight trip for intensive study of a particular topic, and for community building.

SWS Staff includes a full time Coordinator who is also the main counselor, a .2 FTE counselor, a .5 FTE secretary, three .5 FTE English teachers, a .6 FTE social studies teacher, and two .2 FTE part time science teachers. As the SWS program is enmeshed with the mainstream school, all SWS students and staff are mainstream BHS community members also. All BHS students and staff retain responsibilities and participation within the main school.

SWS operates on part of the fourth floor of BHS, utilizing three classrooms, a small study room, a student lounge/community space, and office space for the coordinator and secretary. The SWS space is also adjacent to a single occupancy unisex bathroom used by students and staff.

#### **Proposed Changes and Why, or Statement that No Changes are Proposed**

SWS has found a formula for success and has been running well for almost 50 years. A central aspiration is to continue this success while also looking for areas to develop. Both the population and the field of education continue to evolve, and changes in the mainstream school directly affect SWS. As SWS and the mainstream have a symbiotic relationship, SWS must evolve, and has evolved as the mainstream has done so.

SWS aspires to retain the amount of space it currently utilizes. SWS aspires to accommodate more of the students who are interested in joining the program. The best option might be to create another SWS-type program for the excess numbers of students who cannot be accommodated by the current SWS program. This new program could duplicate the existing SWS, or could be based on another theme. A variation on the current model as the basis for a new program might also serve a population that would like a smaller program, but who are not drawn to the existing SWS program for some reason.

#### **Constraints (things in the existing building that limit your aspirations):**

SWS has been engaged in a long term plan to incrementally increase in size in order to seek to accommodate as many interested students as possible. Over the years the program has expanded and then functioned at a range of sizes from a few dozen, to 75 students, to 100 students, then to 110, and now to approximately 120 students. It appears that SWS has approached the size limit for such a program, but the program will continue to explore how to accommodate as many interested students as possible. Options include experimenting with incremental increases in size, as well as continuing to offer seats in SWS classes to students in the mainstream.

SWS has grown to what feels like the limit of students that can be accommodated with current staffing levels and space availability. A further next increase in size might necessitate adding sections of classes, and this population increase might tip the balance away from a manageable size for a small program of this nature. In



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particular, the caseload size for the combined coordinator/counselor already proportionally exceeds the standard in the mainstream. Any expansion of the current program would require additional counseling staff in addition to additional teachers. Furthermore, the meeting space used for the current weekly meeting just barely holds the total staff and student population of SWS. Any further expansion would not only necessitate the addition of additional classroom space, but also a large meeting space along the lines of a small theater. Finally at 120 we believe the program is at limit for creating and maintaining a community of this type. To grow beyond this would, we think, fundamentally change the nature of the program. That said, the program has served as a model for other similar communities in other schools, and we believe there is sufficient demand within the high school to explore creating an analogous type of school within a school.



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### Career and Technology Education

#### Curriculum/Service Delivery

The Career and Technology Education Department offers courses, which allow students to explore occupational fields, which will influence their educational, and employment decisions. Enrollment in these courses offers opportunities for students who will pursue post-secondary education at either the 2 or 4-year level as well as students who will enter employment or the military upon graduation. Some of our course pathways have articulation agreements with local colleges. These agreements allow our students who complete certain CTE classes at BHS to receive college credit if they matriculate to that institution. In addition to providing valuable career information and experiences, courses in Career and Technology Information are intended to provide transferable skills, which are useful in both personal, and employment situations. Some of our courses offer certificates upon completion of the course work and a standards-based examination. Currently, these include Culinary Arts, Early Childhood and Business /Financial Literacy. The emphasis on technology in these courses, programs, and pathways is intended to reflect transferable skills, competencies, and technological advancements, which are important components of all career fields. The Career and Technology Education Department is committed to the integration of technology into all of its offerings.

However, the vast majority of students who take courses within the CTE program do so for other reasons. CTE courses provide an alternative type of education that serves different types of intelligences and expertise as well as provides courses that exercise different parts of the whole child. At our core we fulfill this vital need in reflecting the graduation requirements of the high school and the philosophy implied therein that a Brookline High School student must experience broad facets of education. From cooking classes to woodworking to engineering, the CTE program strives to provide courses that are high in student interest and also serve to provide a different kind of learning for students. The hands-on shop environment in many of our classes is far different from the educational experience students receive in the majority of their classes at the high school. While few students pursue the pathways and careers we demonstrate, most students enjoy and remember the experience they had within the CTE learning environment, and the courses remain among the most requested in the school.

Our programs currently occupy space in the Unified Arts Building and the main building. Creative interdisciplinary and interdepartmental collaboration continues to grow with students being able to take (certain) CTE courses for credit in the English and Science Department and/or Visual Arts Department. Students are involved in high interest, hands on, team building and individual projects. Classroom size appears to be generally good for serving our current population, but space in some areas (Computer Science, Family and Consumer Science) are limited due to size and budget constraints.



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### Proposed Changes and Why, or Statement that No Changes are Proposed

CTE needs large flexible spaces for all of its work. Perhaps more than other departments the CTE department relies upon technology and machinery, yet experience teaches us that these spaces quickly become obsolete if they are dedicated to single tasks (see the auto shop). New CTE spaces need to be flexible in design and configuration to ensure that the space does not get "locked" into one specific technology. The makerspace concept certainly applies here, as it would allow for a variety of courses to be taught using many of the same materials, tools, and machines. Additionally, a properly outfitted space of this type will serve many other disciplines in the school, especially math and science as they look for real-world spaces to test out designs and theories from their classes. The CTE Department would also like to see the purpose built early childhood "lab" to allow for expansion of the current early education program and full development of that program into a CTE pathway.

As always, safety issues in some shops necessitate limits in class size. Material costs for all classes rise as enrollments in CTE classes increase.





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### ELL PROGRAM

#### Curriculum/Service Delivery

Brookline High School's English Language Learners' (ELL) Program is designed to meet the educational needs of English language learners (ELLs) by providing explicit English language instruction and specially designed academic support. The purpose of the program is to provide intensive English language instruction and an orientation to American culture and high school life. Our program of study supports ELLs in the process of understanding, speaking, reading, and writing English fluently and competently in order to succeed academically and socially in their classrooms, school, and communities at large. Our primary goal is to support students' acquisition of the linguistic and cultural knowledge needed to function effectively in an ever-changing global society.

Brookline follows an integrative Sheltered English Immersion (SEI) program model where students take ELL courses as well as additional courses from the general school curriculum and are expected to fulfill the school's graduation requirements. Students work with ELL staff for part of their school day on direct English language development skills. For the remainder of the day, students are integrated into mainstream classrooms such as math, science, and history, where learning is supported by sheltering strategies that make content comprehensible and develop academic language proficiency across disciplines. The ELL program provides instructional services that encourage students to become confident, empowered learners through the development of critical thought, reflection, and action. Individual needs are respected and accommodated through the use of various instructional methods fostering high academic achievement.

At Brookline High School, we offer a leveled sequence of ELL courses with curricula aligned to state and national standards. Our courses provide in-depth instruction and practice in communication, literacy, and analytical skills. We also offer students an ELL Academic Support course that provides students with advanced strategies to succeed in their classes. In this class, English learners hone their vocabulary, grammar, and communication skills effectively for academic purposes.

Brookline High School also has an International Student Advisor (ISA) who provides students with vital academic and social support. The ISA works closely with all international students and their families as they transition to living and studying in Brookline. The ISA serves as both an advocate and resource. This support includes, but is not limited to: helping families access the wide range of school services offered, planning social activities, supporting students in need, advising students and families, assisting with course selection, and post-secondary planning.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

In many ways the needs for the ELL program align with those of the world language program. ELL students are more reliant on technology and language lab time and are in greater need of 1 to 1 computer access as well as stable and reliable Internet connections. While classes are smaller than the BHS average, the program



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demands larger rooms as by definition students are going to be at various levels of language acquisition and therefore need a differentiated and specialized mode of instruction. This is best achieved within a room that has multiple learning zones and study areas as well, ideally, as having quiet spaces or reading and study within the classrooms.

### Health and Fitness

#### Curriculum/Service Delivery

The goal of the health and fitness department is to provide all students, through high quality health and fitness instruction, with the knowledge and skills necessary to be healthy and physically active for a lifetime as well as productive members of society. Students learn life skills that are practiced and utilized outside of the school setting. These skills help students to be successful and contribute positively to society. The curricula are age and developmentally appropriate and foster current trends in health and fitness as well as an intentional focus on collaboration and cross-curricular association.

Health and fitness teachers have unique opportunities to work with students throughout their high school career. The consistent teacher/student engagement affords opportunities for the development of trusting, reliable relationships. We offer a variety of inclusive, active, and enjoyable fitness classes designed to meet the needs and interests of our students. The department's pedagogical approach addresses a variety of learning styles, where students engage in large and small group discussion, individual and small group presentations, project-based learning, and individual, small and large group activity-based learning. The health and fitness department consistently challenges students to enhance their confidence and competence, critical thinking, writing, and problem-solving skills. The department depends on valid, credible and reliable research that showcases the correlation between quality physical education/fitness and academic achievement. Specifically, we incorporate an objective fitness assessment system, Polar GoFit, and specialized heart rate monitors to support students' understanding of cardiovascular endurance and analysis of their progress. We incorporate the proven research of \_\_\_\_\_, by Dr. John Ratey, to showcase the positive correlations between exercise and brain function. Students are charged with reading assignments from \_\_\_\_\_ followed by presenting a detailed analysis of their \_\_\_\_\_ understanding.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

The spaces for health and fitness are in need of modernization. Other than the climbing gym, the equipment in use and the configuration of the spaces in use is largely unchanged in the past 30 years. Health and fitness is not as equipment sensitive as other disciplines, but several areas of need could be addressed in the project. While other areas of need exist, these are needs of priority to ensure students receive the most effective



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instruction and ultimately result in Brookline High School becoming a national model for wellness.

A wellness center would allow for the incorporation of fitness concepts, student grouping arrangements, inquiry and researched based activities resulting in comprehensive health and wellness lessons. Additionally, the space could be used for examining/investigating various types of human anatomy, and first-aid, CPR, and AED certification. This also would address the lack of a dedicated health classroom integral to the ninth-grade curriculum and the health and wellness instruction for the school.

The fitness center is too small and not properly designed for effective fitness instruction and student participation. A fitness center should accommodate 50 students at once and would encourage more interest and enthusiasm for lifetime fitness courses, as well as allow two classes to be taught simultaneously as enrollment increases. The space would need to accommodate state of the art fitness equipment. This space should be large and flexible, allowing for different types of activities to be run in the room, and not allowing the equipment in the room to dictate the instruction. Too many of the spaces for health and fitness in the past have become "uni-task" rooms suited for a single purpose.

Locker rooms in close proximity to the fitness center, multipurpose room, dance studio, and the gymnasiums would allow for more efficient transition, thus providing additional instructional time. The current locker rooms in the school are badly outdated and no longer serve the health and fitness department well. A reconfiguration of these spaces sensitive to the way students now use the spaces in terms of changing, securing valuables, and showering, is in order.



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### School Counseling – Guidance and Social Work

#### Curriculum/Service Delivery

The goal of the school counseling department is to offer substantive and effective social emotional supports for all students at Brookline High. In addition, school/guidance counselors also provide guidance and information for every student as they pursue continuous learning in their post high school goals. These efforts are built upon the foundation of the BHS community with its focus on the integral nature of relationships between adults and students in the classroom, in the hallways, in the counselor's office, and on the playing fields. In the effort to promote Brookline High as a big school with a small school feel, the critical need for ongoing shared and effective collaboration and communication is reflected in the student support services offerings and related programs.

The school counseling/guidance program models itself on the ASCA (American School Counselor Association) National Standards for Students in the areas of academic development, career development, and personal/social development. These standards cover such competencies as: improvement of academic self-concept, achieving school success, goal-setting, relating school to life experiences, developing career awareness/readiness/ goals, and acquiring self-knowledge and interpersonal skills. Through grade level developmental guidance seminars, collaborative daily monitoring and action planning in Dean's Teams, and ongoing relationship building and sharing in counselor and social worker offices, students are given the tools and support they need to do their academic best and to build self-advocacy and self-reliance skills to be successful contributors in the Brookline High community and beyond. The importance of school counselors and deans continuing their work with the same students over four years is essential to knowing students and families well. This "following" of students over a 4-year period is a model that best supports students during their years of great emotional, physical, and academic growth. In addition, the developmental underpinnings of having counselor caseloads be split into annual grade 9/11 and grade 10/12 allows counselors to focus their attention on certain grade levels at critical times of the school year. For the 9/11 pairing - semester one focuses on incoming freshmen transition to the high school while semester two focuses on juniors as they jump start into the post high school planning process. For the 10/12 pairing - intensive post high school planning support for seniors is the focus of first semester and building career awareness as it relates to future course planning and extracurricular experiences is the focus for sophomores during semester two.

The resurgence of a guidance department sponsored College and Career Center at BHS has just started and has shown positive impact in its first school year. The availability of having both a part time Career Counselor and a part time College Counselor has offered additional resources and support in these areas as adjuncts to every student's assigned school/guidance counselor. Through workshops, drop-in support, large group assemblies, parent assemblies, and guest college representatives, BHS students have the opportunity to gain more insight into the various options open to them in high school and beyond as they consider their development outside the school walls through internships, employment, and sorting out a good fit for school



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or life goals after graduation.

The department also maintains a close connection to the Brookline Mental Health Center and the associated BRYT (Brookline Resilient Youth Team) program, which serves as a transitional program for students returning from hospitalization and/or the concussion protocol. This bridge program fills a key support need in the high school. Currently the BRYT program has a converted classroom that serves as its meeting space and office.

#### **Proposed Changes and Why, or Statement that No Changes are Proposed**

With the increasing student enrollment projected over the next 10 years, the challenge of continuing to provide quality support services in the above arenas is evident. The critical nature for students to build trusting relationships with adults can continue in the broadening of the current and highly effective Dean's Team support models at BHS. In the effort to strengthen the collaborative teamwork of multiple educators and counselors in these teams, grade level deans/associate deans would work in tandem with school/guidance counselors as well as a social worker and an Educational Team Facilitator from the Special Education department to provide consultation, communication, and wraparound support for every student in that grade level Dean's Team. Dean's teams could be set up in zones that reflect the counselor caseload models of 9/11 and 10/12 collaborations. Although not housed in the current suite model, having these teams in zones within proximity to each other would allow for efficient and effective communication and collaboration to best support every student.

At the same time, the school counseling department could be reorganized in a hub like manner with the College and Career Center being the center of this student resource center space and the Guidance Coordinator, Guidance administrative assistants, College Counselor, and Career Counselor all housed as spokes to this hub. Ideally, this student resource space would be centrally situated within the high school to promote constant student traffic. When needed, this space could be seen as flex space for weekly large group school counselor/guidance department meetings along with group workspace for College/Career workshops, panels, and presentations.

Both of these proposed models also support building RTI practices within Brookline High. Having Dean's Team grade level zones and a School Counselor/ Guidance department hub with the College and Career Center at its center offer genuine team models to continue effective communication and brainstorming. These efforts would loop in other critical RTI partners such as regular education teachers, BHS Health/Wellness providers, Tutorial and Advisory programs, and programs that offer essential support services to certain valued members of the school community – METCO, African American Latino Scholars Program (AALSP), and Steps to Success.



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### SCHOOL HEALTH SERVICES

#### Curriculum/Service Delivery

The mission of the School Health Program is to foster the growth, development, and educational achievement of all students by promoting health and wellness. This happens in the following ways: providing first aid, emergency treatment, intervention and referral for physical, psychological, social-emotional and behavioral issues; administering direct care for special medical needs, monitoring health status and administering screening programs; and building partnerships to ensure referral to quality services that are effective, culturally appropriate and responsive to the diverse and changing needs of our students and their families.

In the 2015-2016 school year, 6858 students sought treatment from the two (occasionally three) nurses in the health office at Brookline High School. This demand is a more than one thousand student increase over the previous year. Of those visits, 270 were for social/emotional/behavioral health issues; 1421 were for neurological assessments (headache, seizure, concussion); 1240 were for musculo-skeletal assessments. The nurses had over 1270 conversations with parents/guardians related to students' health issues and over 75 conversations with community agencies, including health care providers. Nurses are an integral part of the plan of care for concussions, relaying pertinent information between outside health care providers, parents, students, guidance, and sometimes coaches and teachers.

In the 2015-2016 school year over 560 students had a diagnosed special health care need. Of those, 7 had diabetes, 19 had a seizure disorder, 24 had a history of migraine headaches, 5 had cardiac conditions, and 236 had asthma. 45 students have a prescription for Epi-Pen for treatment of life threatening allergies.

Currently the health office/clinic at Brookline High School has one private office space with phone and door. There is one handicapped-accessible bathroom. There are two separate "resting areas" with a total of 5 cots. These are well used, as evidenced by the numbers of students who visited the health office. There are no curtains or privacy screens between the cots. There is no dimming of overhead lighting. This area is not observable from any of the office areas. There is one private area with sink for screenings or treatments, which also houses locked medical files. There is a medication area with sink, counter and cabinets, and locked medication cabinet.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

As the high school grows it is certain that the need for health services will grow proportionally. To this end



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student health services require a space that is purpose built for school health-care be a part of any new construction. The current space was designed in a previous era for students who needed to lie down for a little while or wait for a parent to pick them up at the school. While these are still a part of the health service, modern nursing care has evolved greatly in the past 50 years and will likely demand a far greater level of service in the future. With increased student enrollment, there will continue to be increasingly complex and diverse student health needs and more students coming to the clinic for assessment, triage, and treatment. Additionally, the size of the school staff needs to be considered, as many staff members also seek care in the health office.

The design needs to allow for specific, separate areas to meet student health needs. Specifically the design should include separate private areas for phone conversations between nurses and service providers and/or parents; additional space for the commensurate larger nursing staff; treatment areas and beds in full view of the entire nursing suite; a waiting area removed from the treatment area; larger resting area in accord with the standard MDPH ratio of one cot per 300 students; and, at least two handicapped accessible bathrooms. All of these spaces are areas of need. As the high school community continues to grow our ability to treat and manage the health and welfare of the students and staff members in the BHS community will be diminished by these limitations.



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### Athletics

#### Curriculum/Service Delivery

BHS Athletics currently offers 40 sports and fields 80 teams, serving a total of 1880 student-athlete registrants of which 1190 were unique, representing 61% of the total student body engaged in at least one sport at BHS, during our three distinct interscholastic athletic seasons. BHS has one of the largest athletic programs in the state both in terms of the number of participants and the number and levels of offerings. The program provides the primary source of identification with the school for many of our students. Further it is the embodiment of our commitment to recognizing all types of success as well as educating the whole child. It is on the athletics fields that we see the core values of respect, equity, excellence, collaboration and achievement put to the test. For coaches and for student athletes what happens on these fields is the living laboratory for the values we as a school and as a community hold dear.

Our on-campus indoor facilities are spread out in separate buildings and include: One main competition gym, Two auxiliary gyms, the Pavilion/Fieldhouse space, Specialty spaces including spin room, crew/erg room, wrestling room, mezzanine fitness area, the Aquatics Center, Sports Medicine Center suite, Fitness Center, various locker rooms in the basement of Schluntz Gym and Tappan Gym, one classroom space, one small conference space, an officials' room and shower, area for equipment manager and storage for uniforms and equipment is adequate but far from offices and difficult to access, and equipment storage areas.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

The lack of contiguous outdoor athletic space at the school means that over half of our teams and three quarters of our participants practice and compete off-campus. We have fields located as far as 4 miles from campus, causing transportation and time hardships, especially for students involved in varsity soccer, rugby, field hockey and ultimate disc. Many other teams are travelling 1-2 miles to their practice/contest venues. As we do not have locker/changing room access at our remote locations, this creates logistical hardships for many of our participants, for example football players who need to get dressed in their equipment at BHS and often walk a mile, across Route 9 to and from their practice and sub-varsity playing field.

For football, we rely on Northeastern University's Parsons Field, subject to their scheduling and field amenity restrictions (e.g. no locker rooms, blue field lines, no field numerals, etc.) BHS Ice Hockey uses 8 different rinks to accommodate scheduling for four teams, resulting in late hours, transportation hardships and impediments to participation. With no indoor track, runners are regularly training outside on streets and sidewalks in winter conditions.

These and other limitations on our current facilities, impair our ability to add sports, roster spaces, and intramural opportunities. BHS Athletics' goal is to continue current offerings as well as expand opportunities





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to keep pace with enrollment growth. Maintaining unique registrations at 61% of the student body would mean nearly 1700 students would participate in athletics. To serve this number of student-athletes, many students' athletics would require a town-wide review of the program and facilities designed to increased athletic offerings for the students at the high school as well as other school age children and adult users of town facilities.

It is a priority for the new/renovated Brookline High School to partner with Parks and Open Space to include a synthetic turf multi-purpose athletic field at the High School, with spectator seating. It is our hope that creating a campus with this facility will ensure more opportunities for practice and competition by adding a reliable field and will increase the number of students participating in many of the aforementioned sports, by eliminating time and transportation hardships. We further hope that inclusion of this facility will foster community building by increasing the number of school staff and other spectators in attendance for contests, and attracting more staff to coaching by removing associated time and transportation hardships.

Additional needs would include

- Fieldhouse space that is large, flexible and divisible, including capacity for 200 meter track, four volleyball/multi-sport courts, indoor tennis courts, badminton, batting cages, curtain partitions, etc.
- Locker rooms that have controlled entry/exit, secure lockers, privacy areas, showers in a centralized athletic department location will work to address many safety/security issues. Short-term secure lockers for small valuables would also help. Locker room accommodations should include unisex or transgender changing spaces.
- A renovated Sports Medicine Center
- One (or more) large flexible fitness center(s) that can accommodate 50+ students at a time

## Brookline High School – Expansion/Renovation Process

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### Performing Arts (Music, Drama and Dance)

#### Curriculum/Service Delivery

Brookline High School has demonstrated a long-standing commitment to performing arts education. As part of our graduation requirements every student takes at least one class in the performing arts, demonstrating Brookline's belief that exposure to a variety of ways of thinking, including those developed through music, drama and dance, is a vital part of every student's learning. The performing arts program provides students with opportunities to practice creativity every day, develop critical thinking skills, learn how to refine work through practice, analysis and adjustment to practice, and to experience creating original work, performing, and connecting to other areas of study through the performing arts.

The goal of Performing Arts at Brookline High School is twofold: first, to provide students at all levels of experience, including those with no prior experience, an opportunity to become artists and find their own voice through creating, performing, responding to, and connecting with music, drama and dance. Second, is to have students learn essential skills that can be applied to all areas of life and study through what is fundamental to our disciplines: learning to work within an ensemble as well as independently, reflecting on and refining their work, building skills through practice, analyzing and communicating ideas about their own work and the work of others, thinking critically and creatively, learning more about themselves through artistic expression, and more. To achieve these goals we present a variety of courses at different levels, balancing direct instruction and student-led exploration. Performing Arts at Brookline High School is a thriving and lively home to creativity in which we offer courses in instrumental music, vocal music, digital music, dance, drama, stagecraft, set design, lighting and sound design in introductory through advanced levels.

The Performing Arts curriculum balances content and development of skills aligning with the National Core Arts Standards for Music, Drama and Dance. These standards include Creating, Performing, Presenting and Producing, Responding to, and Connecting. The collaborative nature of our classes and learning environment support these goals.

#### Proposed Changes and Why, or Statement that No Changes are Proposed

In the 2016-2017 school year, we currently have 783 seats in Performing Arts classes at BHS filled by 657 of our 1998 high school students, or one third of the BHS students taking performing arts classes this year. Our class numbers are larger than ever, with 85 students in our school Orchestra, 84 students in our Concert Band, dance classes over limit, and Digital Music classes that are full with no space for more students who have requested to enroll. Additionally, a thriving elementary music program is driving increased demand for our high school performing arts program; demand that cannot be met within the current constraints imposed by our facility. Perhaps most significantly, if the current plan is to include a refiguring of the Tappan gym, the



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## Brookline High School – Expansion/Renovation Process

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two dance studios will need new locations.

The effective working of our classes is limited in our current configurations by three main factors. First, the number of students wishing to enroll in certain classes is outgrowing our spaces. The digital music studio and the piano lab are far too small. Brookline High School's Performing Arts spaces were not originally designed for the current degree of activity in our robust Performing Arts program. Over the course of years in which the program has grown both in numbers and content, we have put together spaces in a piecemeal fashion, in which we use a storage room for a Digital Music class laboratory, and an auditorium stage for our Orchestra rehearsals and Drama classes (a space that is shared by the whole school resulting in our classes being displaced for school assemblies). Even in dedicated Performing Arts spaces, like our Band Room or Dance Studios, we no longer have spaces large enough for our current student capacity. Our spaces don't reflect our pedagogical approach to teaching performing arts. We have thriving performing groups, and no practice rooms for students to rehearse alone and in small groups during the day; we have an enormous Orchestra and no storage for student instruments during the day; we break our ensembles into small groups during class periods and they have to work in the hallways; we are trying to bring our classes into the 21st Century with exposure to how professionals in Music, Dance, Drama work today, yet we lack appropriate 21st century digital music and set design labs. We have a clear need for larger spaces with more flexible arrangements in which students can work comfortably in both large and small ensembles.

The second limitation is insufficient technology. While there have been improvements in connectivity, to bring Performing Arts into the 21st century, we need a larger digital music lab and a space that can be used as a recording and engineering studio. We need a space that can be used for 3D digital stagecraft, set, lighting and sound design for our Backstage courses, and one-to-one computer stations for our current Backstage and Digital Music Classes, as well as recording and engineering class which we would like to be able to offer. For students to become effective in these areas that are now common in the Performing Arts world, and to be fluent with the current technology used in music and theater in particular, technology is a must. Third, and perhaps most significant, Performing Arts instruction is limited by classes that are too large, where class numbers have been increased to meet demand to the extent possible within our constrained facility. Our Concert Band and Orchestra have now grown to over 80 students each. As we only have enough teaching staff to offer one section of each of these classes, we are also not able to have different leveled groups, so we mix beginners with advanced musicians in these ensembles. While having students of different levels working together is important, it is also essential for students of different experience levels to be challenged by working in ensembles that are at their level.

Performing Arts requires classroom spaces designed for easy collaboration and communication, that are sufficiently sized for ensembles that allow for students to move freely and participate with instruments and props, soundproofed as needed, practice rooms to support student development in music, and with sufficient technology to utilize 21st Century modalities in the Performing Arts, such as digital studios and recording spaces. To that end, our ideal spaces for teaching and learning have all or most of the following characteristics: Classrooms in close proximity for break-out groups of small ensemble work, and that allow collaboration between music, drama and dance disciplines. We should consider classrooms that take allow for large ensembles, such as Orchestra and Concert Band and have sufficient and dedicated instrument and storage



## Brookline High School – Expansion/Renovation Process

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space that can be shared with other disciplines, but not during class time. Dance studios that take into consideration not only how many students are in a class, but the space needed for movement in these classes. Drama spaces that allow for performance as well as teaching space with digital lighting, and a mid-sized (four hundred person) theater space, which can be shared with other departments.



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### Visual Arts

#### Curriculum/Service Delivery

BHS and the Brookline community have a long commitment to supporting the arts and providing a strong arts education to every student. Embedded in our graduation requirements is an understanding that exposure to a variety of arts and ways of thinking is a vital part of the BHS experience and a critical component for a well-rounded education. Arts education addresses the PSB core value of life-long learning, encouraging students to stay curious about the world, be critical and creative thinkers, and reason effectively and innovatively. The visual arts classes are based on challenges that lead to genuine understandings, by applying knowledge into new situations to express themselves through art. Keen observation is, an essential condition of understanding and it is through art making that students integrate careful observation and the creative capacity to see what is possible while remaining attentive to what is.

The Visual Arts program provides students with repeated opportunities to practice creativity every day, developing habits of mind, critical thinking skills, observational skills, decision-making skills and craftsmanship. The curriculum prepares students to communicate ideas, demonstrate understandings and interact with a larger public's response through criticism and exhibitions.

The Visual Arts program also provides student firsthand experience with the design process so critical to innovation and innovative thinking. Having an idea, creating a plan to execute the idea, responding to setbacks in the implementation, problem solving, reflection and exhibition provides students with learning that leads to the appreciation of the application of knowledge to real world situations. The visual arts students must invest themselves to truly learn and understand for the intrinsic value, for the gratification of solving the problem, a problem that does not have one right answer.

Our goal is to have Visual arts students work in well-equipped studios to build strong artistic practice. Instruction is grounded in "student as worker, teacher as coach" model. Teachers design complex challenges, provide instruction/modeling of the materials and techniques as needed then allow all students the opportunity to create their very best work. Students understand that failure is expected and examined for the learning it provides through the creative process. In the creative thinking and design processes, visual arts students develop personal voice, persistence, problem solving, an appreciation of different points of view, the ability to collaborate through critic, and effective communication skills. Students also experience making their work public through multiple community exhibitions. These thinking/design skills lead to the craftsmanship needed to create increasingly sophisticated works of art.

Artists develop skill in a strongly supported environment, The Visual Arts program meets the National Arts Core Standards, provide students with multiple ways of working, and experiencing the personal satisfaction of creating something from an idea to a form.

All experience levels are welcomed; every student is introduced to and encouraged to develop an intrinsic



## Brookline High School – Expansion/Renovation Process

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connection with design thinking challenges as a way to learn any new material. Artists develop through practice, age and inclinations allowing all students of every grade level and every program. Groupings cover all grade levels and all programs available at BHS.

Visual Arts students develop the skills and knowledge to pursue a productive and fulfilling life as an artist, or transfer these practiced skills to other professions.

### **Proposed Changes and Why, or Statement that No Changes are Proposed**

As we welcome more students to the visual arts programs, our current spaces will quickly be less effective. The existing digital media labs will not keep pace and limit the expansion of this area of the department work. More computer labs are needed to add enough classes for the growing population. Updated Media centers and regular, reliable upgrades of technology for our programs are important to meet the needs of our students.

Maker Spaces/studios in the future should have large open spaces with smaller working areas surrounding it so all the users can access the open space and maintain smaller areas for student work. Currently all materials are stored and student work is completed in the traditional classroom space. By having smaller studio work spaces available, students would be able to work beyond class time, have ongoing work visible, would be able to create multiple pieces simultaneously.

Additional changes to our current space that would support our vision for Visual Arts at BHS are:

- A larger space that could be divided with movable panels for large group presentations that can be reconfigured to small work areas. Writing surfaces on walls tables, etc. to share and promote visual thinking in the open studio spaces.
- Spaces that encourage interdisciplinary studies and support student driven learning experiences that break free of soloed learning. An example might be a nature lab/ collections of artists work library/display of student created visuals/student work/videos and corresponding science equipment, with secure open access, tables for students to research, examine, and explore the collection for inspiration in all classes.
- A community viewing space for student work and the work of community artists that are open regularly and secure. For example, this could be a courtyard for sculpture or a lobby exhibition area that both enhances the BHS community and makes public students' visual arts work. Providing a central, dedicated gathering and exhibition space that is both community friendly and flexible will provide a proper area to have student work presented to peers, outside experts, judges, and audiences on a regular basis. This will increase the amount of exhibitions and public feedback opportunities for the students simulating real world experiences
- A large space with tools for metal, wood, plaster sinks, and ventilation that can accommodate large-scale sculpture work.
- Creative work classrooms demand space for work in process, models, mock-ups, exhibition ready work. As the numbers increase space for individual work will lessen.



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#### 2.15 FUNCTIONAL AND SPATIAL RELATIONSHIPS AND ADJACENCIES

To sustain Brookline High School’s mission and goals, the facility should:

- support 21st century teaching and learning
- integrate technology and the necessary infrastructure in all areas
- provide vibrant, flexible teaching and learning spaces
- facilitate student and teacher initiative and engagement
- ensure safety and security
- welcome the community and educational partners

Key to design will be flexible learning spaces for students and teachers to engage in both teacher-directed and student-directed learning. To ensure the best learning opportunities for students, this project should include:

- Modern classrooms with interactive LCD projectors, adequate whiteboard space and storage, and maximum natural lighting with windows that open.
- Teacher workroom space that is designed for both inter and intra-departmental collaborative work as well as professional development.
- At least two large group instruction space (flat floors, moveable tables and chairs) that can be used for combined classes, presentations, lectures, seminars, faculty meetings, and parent meetings.
- 21st century science labs that facilitate instruction, lab work, and technology integration.
- Learning/meeting areas for alternative programming for special needs and at-risk students
- Library/media center, rich with technology central to all content areas
- Related departments (for example, math and science, art and technology/engineering, the humanities departments) that are close in proximity.
- Redesigned library/media center supporting multi-media, flexible group space, and current research practices
- A gymnasium with flexible space for alternative programming and a fitness center
- A dining/cafeteria area that includes safe and accessible eating areas for all students, and food preparation areas that support healthy and varied alternatives
- Storage space for school needs and student needs, including additional school lockers
- Community, student-centered areas that provide community access to auditorium and gymnasium
- Efficient, effective security systems



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### 2.16 SECURITY AND VISUAL ACCESS REQUIREMENTS

Teaching and learning in a safe and secure environment is of critical importance to the Brookline High School community. Brookline High School has six deans who serve in part in a disciplinary capacity and three full time security paraprofessionals. The school has a long and cooperative relationship with the Brookline Police Department.

Physically the building has many areas of concern from a security viewpoint. Large areas of the campus have little to no adult supervision and yet allow free access to all. The 40 exterior doors found in the current school design impede security and safety protocols. There is no doorbell or monitoring system managing school entrance into the building. Currently only a handful of the doors are locked during the day.

The Brookline High School should include a security system that includes video cameras and alarms. Such a system would have to be elaborate as the numerous right angles and corners of the exterior of the building present many visual impediments to an effective monitoring system. Inside the building such areas multiply exponentially given the three to four story main building as well as the many spaces within the Tappan and UAB.

A monitoring system for camera review should be located in Main Office or Assistant Headmaster's office. The Main Office design does not provide a view of the main entrance doorways, but it should in the new project. The design of the atrium does not naturally flow visitors to the office to sign in.

The buildings are also used for non-BHS purposes (e.g. Brookline Interactive Group, Adult Education, Recreation), and therefore there are constantly adults in the building who are not PSB employees. It is currently impossible to monitor people exiting the building. Any design option should have a clearly identified primary entrance and a mechanism for monitoring activity by all such locations around the campus.

Also in need of study will be the accommodation of pedestrians through the campus. As we grow to 2600 we would expect new issues to arise at crosswalks and intersections around the campus and a careful study of the increased foot traffic should be undertaken. Related to that would be additional attention and identification of safe areas for student drop off/pickup.





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#### Other considerations for expansion

The section incorporates some space specific ideas that are either implied or mentioned tangentially in earlier sections of the document. Any discussion of the high school campus must include the broad and varied use the entire campus gets.

**Adult Education** is the second largest user of the campus running multiple programs in the building nights and weekends. There are numerous Adult Ed classes going on in the evenings and their needs in terms of office space and classroom space must be remembered in any expansion plan. Additionally **Brookline Recreation** has a large role on the campus with the shared use of the Tappan Gym and other spaces.

The Brookline High campus is extensively used for **summer school** and summer programs both from the high school and from the town. We host numerous camps, extended school year programs, as well as the ordinary Brookline high school summer school and as such usage of the building is almost year-round

The **African-American and Latino Scholars (AALSP)**, **Steps to Success (STS)**, and **METCO** programs serve as vital parts of the school's effort for equity and access for all students. These programs require a home base that serves as central point of identification and support services for students in the programs, as well as meeting space for the program advisors and students.

The **cafeteria** is an immediate area of concern as we grow larger. This year we have gone to three lunches involving a split class in the schedule in order to accommodate all of our students in the cafeteria. Prior to this the lines had gotten too long and the conditions in the cafeteria itself were overcrowded. While the split class itself is working nicely this condition will only last for the next few years. As we continue to grow the overcrowding in the cafeteria will quickly return. Further the architecture of the cafeteria itself is poor with a low ceiling increasing noise level as well as perceptions of a small and limited space.

High school also has a long tradition of hosting **early education** on the campus and would welcome an expansion of this role and the opportunity for students in the career and technical education area to collaborate with and work with young children. An early education lab-type setting with space for observation and teaching would enhance both high school and the early education experience.

The **BRYT** program has served the high school well both in terms of saving the district the expense of out of district placements and more significantly providing a necessary intermediary step for students returning from hospitalizations. This extension of Brookline Mental Health has served the district well and also serves as a model for many other districts that have implemented similar programs.

The high school's broad commitment to the electives, as evidenced by our graduation requirements and by our extensive arts offerings, means that the school has a large number of spaces dedicated to the arts. Dance studios, black box theater, auditorium with full fly, white box space, and music performance areas, exceed those of other comparable schools and serve as a vital support for the elective offerings in the performing arts.

Brookline Interactive Group is coming to the end of their 10-year space agreement with the schools. The sharing and co-use of facilities and expertise has benefited the school, though the future use of the B.I.G. space on the 4th floor of the UAB is uncertain.



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Appendix A CVBLE Document from the 2011 NEASC review

### Core Values, Beliefs, and Learning Expectations

#### Executive Summary

Brookline High School has been engaged in a dynamic and inclusive process of continuing to identify and commit to its core values, beliefs, and learning expectations. This process has been ongoing over the last decade and has involved all stakeholders within the school community. The process has also been informed by developments in the world around us, including an engagement with educational research and best practices. Our core values, beliefs, and learning expectations infuse all that we do at Brookline High School, including our approaches to curriculum, instruction, assessment, support services, professional development, resource allocation, and other considerations that shape our overall school culture. Our identification of and our commitment to the core values and beliefs about learning will continue to aid us in the pursuit of our central mission: to develop capable and confident life-long learners who contribute to their community, participate thoughtfully in democracy and succeed in a diverse and evolving global society.

Brookline High School has developed challenging and measurable 21<sup>st</sup> century learning expectations for all students, addressing academic, social and civic competencies that are defined and measured by school-wide analytic rubrics that identify high target levels of achievement. The learning expectations include elements that have been identified over the last decade of initiatives at the school, as well as newly incorporated themes that are particularly important for the life of our school and in the lives of our students in the 21<sup>st</sup> century. The expectations are clear and specific enough to be understood by everyone in the community and are applicable to the wide range of educational activities happening everyday at Brookline High School. Parameters for identifying levels of achievement have been clearly defined in each rubric, including the minimum acceptable level of achievement at a high level of demand.

Actively reflected in the culture of the school, Brookline High School's core values, beliefs, and 21<sup>st</sup> century learning expectations drive curriculum, instruction, and assessment in every classroom, and guide our school's policies, procedures, decisions, and resource allocations. Our school has a fantastically rich culture that thoroughly embraces our core values and beliefs, and directs our various approaches to curriculum, instruction, and assessment. Every area of life at Brookline High School is oriented towards promoting our school wide learning expectations. Several initiatives in place are specifically oriented to 21<sup>st</sup> century themes including environmental sustainability, technology and media literacy, social justice, and making choices for healthy living. Ours is a culture that promotes equity, achievement, innovation, freedom, and responsibility.

Brookline High School has a plan to regularly review and revise its core values, beliefs, and 21<sup>st</sup> century learning expectations based on research, multiple data sources, as well as district and school priorities. Our current core values, beliefs, and 21<sup>st</sup> century learning expectations document has been informed by a decade of initiatives shaped by the principles valued by our school and district. Future work including the formation of



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a committee for the bi-annual review and revision of these Learning Expectations has already been identified and structured. Combining the work and thought of what we have already done with this future work and thought to come will enable us to better align with the standards (specifically as it relates to the fourth indicator).

Based on the ratings guide for the standard Brookline High School judges our adherence to the standard as ACCEPTABLE.

#### Core Values, Beliefs, and Learning Expectations Strengths and Needs

While we have many successes, we also have some work to do to thoughtfully improve our school, using our CVBLE as benchmarks.

##### Strengths:

- Involvement of the full faculty in examining the core values, beliefs, and learning expectations documents
- A large core values, beliefs, and learning expectations committee that represented a wide range of school staff
- Design of a new process for reviewing and revising core values, beliefs, and learning expectations
- Updating our 21<sup>st</sup> century learning expectations to include new themes that specifically relate to contemporary themes
- Identifying the role that all of the various initiatives of the past decade have played in the manifestation of our core values, beliefs, and learning expectations
- Collaboration of high school and district staff in the development of rubrics for measuring 21<sup>st</sup> century learning expectations
- Some success with closing the Achievement Gap
- Student Centered Meetings
- Teacher Autonomy
- Additional student support provided by the programs 4+1 allows
- Freedom and Responsibility for Faculty and Students (Trust)

##### Needs:

- Further development and implementation of school wide rubrics for 21<sup>st</sup> century learning expectations
- Further development of ongoing process for reviewing and revising core values, beliefs, and learning expectations documents
- Increased involvement of students and parents in the NEASC self study process including the work related to core values, beliefs, and learning expectations
- More coordination across K-8 and 9-12 in several disciplines.
- Commitment to class size caps
- More work to be done on Closing the Achievement Gap



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- Stability and continuity across support programs and Special Education
- More focus on Technology, including a clearer vision of what Tech could do for us and how to make the best use of what we have
- Expand 4+1 to include all teachers
- More work towards hiring a faculty that reflects the demographics of the student population



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#### Appendix BBHS Enrollment Forecast

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### Why do we need to expand BHS?

#### BHS Enrollment is about to increase rapidly

- BHS Student Enrollment (2010 - 2011): 1,726
- Current Enrollment (2015 - 2016): 1,946 (+220)
- Short Term Increase (2021 - 2022): 2,552 (+826)
- Longer Term Projection (2024 - 2025): 2,789 (±1,063)

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The Challenge  
Public Schools of Brookline



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## Brookline High School – Expansion/Renovation Process

### Why do we need to expand BHS?



### 3. Education Program Summary of Utilization

In the initial phase of the Feasibility Study, HMFH Architects worked with the Brookline High School administrators and faculty to research and document the existing educational program for the school. As a first step, HMFH developed existing conditions floor plans that illustrate the room assignments, adjacencies, and dedicated space for each of the educational program components. In tandem with this effort, HMFH began a utilization analysis of the school scheduling as it related to the usage of the school facilities.

This effort is a method to evaluate the adequacy, or deficiencies, of the facility to support the curriculum and educational goals of the school. This data serves as the basis for the development of a Space Summary, which itemizes the physical spaces, in quantity and size, that will be required to accommodate the educational program of Brookline High School.

For the utilization analysis for BHS HMFH projected the future space needs resulting from the projected enrollment increase at Brookline High School, from the current enrollment of 1950 students to 2700 students. As the Feasibility Study continued, with the inclusion of a stand-alone 9th Grade academic building, HMFH performed a second utilization study to study the space requirements to support this program. HMFH also developed a study of the utilization of the Tappan Gym and Schluntz Gym facilities.

The following assumptions informed the Utilization Studies.

#### 1. Utilization Calculations

A. The Enrollment Increase Multiplier of 1.385 is based on increased enrollment from 1950 to 2700 students.

B. The basis of the analysis is the Master Schedule provided to HMFH from the BHS administration. HMFH was also provided with documentation of each room's schedule of classes, by specific class period.

C. The average class size for Brookline High School is 21.5 students. Test utilizations for several class size averages were studied. From conversations with BHS administrators, more specific information about the educational program was incorporated into the utilization study.

### 3. Education Program Summary of Utilization

The following class size maximums were used for the analysis:

- a. Special Education classes: 12
- b. 9th Grade and Introductory classes: 18 – 20
- c. General classes: 22
- d. Honors classes: 25

Note – current class size for some Honors classes exceeds 25, but the BHS ED Plan states the goal of a class size maximum of 25.

- e. Enrollment for certain large classes, such as Concert Choir at 60 students, was not limited

D. Classroom utilization is calculated at 85% utilization. This allows some flexibility for teachers to prepare between classes.

E. Some classes are scheduled in AM/PM or Z periods, offering students the opportunity to pursue their interests outside of the academic schedule. The increases in enrollment have been calculated but the space requirements have not been included in the totals for required space. For example, if there is a Culinary Class that meets in the Z period and it requires one kitchen, it is the same kitchen that is used later in the day for other classes, not an additional kitchen.

F. The ACE and Excel classes follow different schedules than the weekly block schedule.

#### 2. Stand-alone Off-site 9th Grade Academic Building

A. HMFH used the Brookline High School 2017-2018 Course Catalog to determine which classes are exclusively 9th Grade classes. It is assumed that these classes will be taught in the 9th Grade academic building. In the study, the Enrollment Increase Multiplier of 1.385 is based on the increase in 9th Grade enrollment from 488 to 675 students.

B. For classes shared with upper grades, the Enrollment Increase Multiplier of 0.346 is the proportional increase of the 9th grade students only (1.385/4).

C. Career Education classes are not included within the analysis. It is assumed that 9th Grade students will travel to the Unified Arts Building for these classes.

D. The ACE (Alternative Choices in Education) and School within a School (SWS) enroll students in Grades 10, 11 and 12. These programs are not included in the analysis.

#### 3. Tappan Gym and Schluntz Gym Utilization

A. HMFH reviewed the current utilization of the Tappan Gym and Schluntz Gym facilities to determine the future facility needs based on anticipated enrollment increase and the BHS Ed Plan.

B. HMFH compiled the schedules for the three User Groups – the BHS School and Athletic Department use, Brookline Recreation, and Brookline Adult and Community Education (BACE).

C. Refer to Memorandum in Appendix C for a summary of the study assumptions and conclusions.

Refer to Appendix C – Utilization for Utilization Study documents



### 3. Guiding Statements for Educational Program Levels

At the outset of the Feasibility Study, representatives of the Town of Brookline and the Brookline High School (BHS) administrators asked HMFH to develop three alternative levels of program accommodation for the expansion of the campus. They are defined as follows:

#### **Option 1**

##### **Minimal Level: Accommodation of Additional Enrollment Guiding Statement:**

BHS currently accommodates 2,000 students satisfactorily. Therefore, take only those measures required to accommodate the growth to 2,700 plus improvement to the Science Department facilities where it is most needed.

#### **Option 2**

##### **Moderate Level: Conformance with State Educational Standards Guiding Statement:**

The BHS expansion would be planned to generally conform to the standards currently used for other Massachusetts High Schools. Most other communities partner with the MSBA for funding, and are largely based on MSBA guidelines.

#### **Option 3**

##### **Enhanced Level: Conformance with Brookline Educational Plan Guiding Statement:**

The BHS expansion should be planned to accommodate the goals set forth by the BHS community during the visioning sessions from the past 2 years and as set out in the Education Plan.

### 3. Education Program Space Summary

#### Options 1, 2 and 3

The following Space Summary reflects and forms the baseline for three different alternative levels of expansion initially considered by the Town of Brookline for expansion to the BHS campus;

Option 1 Minimal Level: Accommodation of Additional Enrollment Guiding Statement:

BHS currently accommodates 2,000 students satisfactorily. Therefore, take only those measures required to accommodate the growth to 2,700 plus improvement to the Science Department facilities where it is most needed.

Option 2 Moderate Level: Conformance with State Educational Standards Guiding Statement:

The BHS expansion would be planned to generally conform to the standards currently used for other Massachusetts High Schools. Most other communities partner with the MSBA for funding, and are largely based on MSBA guidelines.

Option 3 Enhanced Level: Conformance with Brookline Educational Plan Guiding Statement:

The BHS expansion should be planned to accommodate the goals set forth by the BHS community during the visioning sessions from the past 2 years and as set out in the Education Plan.

The Space Summary is a quantitative presentation of the proposed building area for each space type category of the educational program – Core Academic Classrooms and Science Class-Labs, Common Shared Collaborative Learning spaces, Teacher Planning, Special Education, Visual Arts, Music and Dance, Auditorium Drama Performance spaces, Career Education and Technology, Health Fitness and Physical Education spaces, Dining and Food Service, Library and Media Center, Medical Nurses Offices, Administration and Guidance Offices, as well as Custodial, Maintenance and Other Miscellaneous program spaces supporting the BHS pedagogy.

Another important aspect of the space summary is the tracking of the existing BHS program spaces housed within the various facilities - the BHS Main Greenough St. Building, the Tappan Gym and the UAB Unified Arts Building. The existing spaces have been evaluated in general programming and planning terms and have been identified as existing to remain, renovated, re-purposed and re-used, or deficient, depending on the different program levels. Notes are included to further define relevant program space features.

These program space areas are then aggregated into a total overall number for the BHS Campus Expansion. This total is expressed as Net Square Feet (NSF), the usable program area, and converted to Gross Square Feet (GSF), which accounts for the unusable space in a building required for circulation, toilet facilities, mechanical systems, and wall thicknesses. The ratio of Gross Square Feet to Net Square Feet of the existing buildings is an average of 1.65. This same grossing factor is used to project the overall areas for the three levels of development.

Further program planning, adjacencies and distribution of spaces will be evaluated during the Schematic Design phase.

### 3. Space Summary OPTIONS 1, 2 & 3

| group                                                                     | ROOM TYPE                                       | BHS CAMPUS Existing Conditions Inventory |          |             | ENROLLMENT ACCOMMODATION |          |             | MA-STATE HIGH SCHOOL STANDARDS |          |             | BHS EDUCATION PLAN    |          |             | MSBA Guidelines for 2700 Enrollment |          |             |
|---------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------|----------|-------------|--------------------------|----------|-------------|--------------------------------|----------|-------------|-----------------------|----------|-------------|-------------------------------------|----------|-------------|
|                                                                           |                                                 | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals | ROOM NFA <sup>1</sup>    | # OF RMS | area totals | ROOM NFA <sup>1</sup>          | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup>               | # OF RMS | area totals |
| <b>BROOKLINE HIGH SCHOOL</b>                                              |                                                 |                                          |          |             |                          |          |             |                                |          |             |                       |          |             |                                     |          |             |
| CORE ACADEMIC - CLASSROOMS                                                | Classrooms / Tutorials/ Study Hall              |                                          | 69       | 49,580      |                          | 92       | 70,290      |                                | 95       | 78,370      |                       | 98       | 82,720      |                                     | 92       | 78,200      |
| CORE ACADEMIC - SCIENCE CLASS-LABS                                        | Science / Laboratories - Class-Labs             |                                          | 23       | 22,290      |                          | 24       | 34,800      |                                | 24       | 35,000      |                       | 24       | 35,240      |                                     | 24       | 39,560      |
| COMMON SHARED Collaborative Learning                                      | Small Group Seminar/ Maker Space/ Project Areas |                                          |          | 5,490       |                          |          | 5,490       |                                |          | 20,290      |                       |          | 41,240      |                                     |          | 3,000       |
| CORE ACADEMIC - TEACHER PLANNING                                          | Teacher - Departments/Teams                     |                                          |          | 7,080       |                          |          | 9,200       |                                |          | 9,200       |                       |          | 9,200       |                                     |          | 9,200       |
| SPECIAL EDUCATION                                                         | Special Ed/ Tutorial/ Learning Centers/ OT PT   |                                          |          | 13,610      |                          |          | 15,110      |                                |          | 17,780      |                       |          | 20,280      |                                     |          | 26,180      |
| ART & MUSIC / DANCE                                                       | Visual Arts & Perform Music / Dance             |                                          |          | 17,720      |                          |          | 20,570      |                                |          | 22,650      |                       |          | 27,410      |                                     |          | 11,425      |
| CAREER ED. / VOCATION & TECHNOLOGY                                        | UAB & BHS                                       |                                          |          | 18,430      |                          |          | 17,280      |                                |          | 18,020      |                       |          | 20,000      |                                     |          | 28,800      |
| HEALTH/FITNESS & PHYSICAL EDUCATION / REC. *                              | BHS & TAPPAN GYM (Pool not included)            |                                          |          | 82,840      |                          |          | 82,840      |                                |          | 76,890      |                       |          | 77,990      |                                     |          | 31,320      |
| AUDITORIUM / DRAMA PERFORMANCE                                            | Auditorium/ Black & White Box/ Drama            |                                          |          | 16,450      |                          |          | 16,190      |                                |          | 17,470      |                       |          | 27,610      |                                     |          | 10,400      |
| DINING & FOOD SERVICE                                                     | Cafeteria/ Kitchen/ Staff Lounge                |                                          |          | 17,355      |                          |          | 18,520      |                                |          | 18,520      |                       |          | 18,520      |                                     |          | 19,850      |
| LIBRARY / MEDIA CENTER                                                    | Library / Media Center / Learning Commons       |                                          |          | 9,070       |                          |          | 16,800      |                                |          | 16,800      |                       |          | 16,800      |                                     |          | 16,775      |
| MEDICAL                                                                   | Nurses Offices                                  |                                          |          | 1,130       |                          |          | 1,590       |                                |          | 1,620       |                       |          | 2,070       |                                     |          | 2,010       |
| ADMINISTRATION                                                            | Need Staff Projections                          |                                          |          | 7,300       |                          |          | 7,300       |                                |          | 8,240       |                       |          | 8,440       |                                     |          | 4,720       |
| ADMIN. GUIDANCE                                                           | Need Staff Projections                          |                                          |          | 3,990       |                          |          | 4,310       |                                |          | 5,050       |                       |          | 5,050       |                                     |          | 3,938       |
| OTHER                                                                     |                                                 |                                          |          | 4,950       |                          |          | 5,150       |                                |          | 4,750       |                       |          | 4,790       |                                     |          | 0           |
| CUSTODIAL & MAINTENANCE                                                   |                                                 |                                          |          | 12,550      |                          |          | 12,550      |                                |          | 12,550      |                       |          | 12,550      |                                     |          | 3,650       |
| PROJECT SUB-TOTAL NET SF                                                  |                                                 |                                          |          |             |                          |          |             |                                |          |             |                       |          |             |                                     |          |             |
| Total BHS CAMPUS Net = NSF                                                |                                                 |                                          | NSF      | 289,845     |                          |          | 337,990     |                                | 73,355   | 363,200     |                       |          | 409,910     |                                     | NSF      | 289,028     |
| Total Building Gross Floor Area (GSF) includes BHS@1.66+ UAB@1.8+ GYM@1.3 |                                                 |                                          | GSF      | 472,400     |                          |          | 558,110     |                                | 127,402  | 599,802     |                       |          | 677,004     |                                     | GSF      | 433,542     |
| Grossing factor (GSF/NSF)                                                 |                                                 |                                          | varies   | average     |                          |          | 1.65        |                                |          | average     |                       |          | 1.65        |                                     |          | 1.50        |

### 3. Space Summary OPTIONS 1, 2 & 3

| GROUP                                                                                     | ROOM TYPE                                  | BHS CAMPUS Existing Conditions Inventory |          | OPTION 1    |          |          | OPTION 2    |                                                                                        |          | OPTION 3    |          |          | MSBA Guidelines for 2700 Enrollment |          | Comments / Notes |                                                                                                                               |
|-------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------------|----------|-------------|----------|----------|-------------|----------------------------------------------------------------------------------------|----------|-------------|----------|----------|-------------------------------------|----------|------------------|-------------------------------------------------------------------------------------------------------------------------------|
|                                                                                           |                                            | ROOM NFA                                 | # OF RMS | area totals | ROOM NFA | # OF RMS | area totals | ROOM NFA                                                                               | # OF RMS | area totals | ROOM NFA | # OF RMS | area totals                         | ROOM NFA |                  | # OF RMS                                                                                                                      |
| <b>BROOKLINE HIGH SCHOOL</b>                                                              |                                            |                                          |          |             |          |          |             |                                                                                        |          |             |          |          |                                     |          |                  |                                                                                                                               |
| <b>CORE ACADEMIC CLASSROOMS</b><br><i>(List classrooms of different sizes separately)</i> |                                            |                                          |          |             |          |          |             |                                                                                        |          |             |          |          |                                     |          |                  |                                                                                                                               |
| A.10                                                                                      | Main Building - 115 Greenough              |                                          | 69       | 49,590      |          | 92       | 70,290      |                                                                                        | 95       | 78,370      |          | 98       | 82,770                              |          | 78,200           | CORE ACADEMIC SPACES                                                                                                          |
| A.10                                                                                      | Classrooms                                 |                                          | 57       | 39,720      |          | 79       | 59,520      |                                                                                        | 79       | 64,500      |          | 79       | 64,740                              |          | 78,200           | total Classrooms includes Tutorial, Study Hall and ACE, SWS, ELL, classrooms                                                  |
| A.11                                                                                      | Classroom - Over 1000 (Rm.385)             | 1,010                                    | 1        | 1,010       | 1,010    | 1        | 1,010       | 1,010                                                                                  | 1        | 1,010       | 1,010    | 1        | 1,010                               |          | 92               | SMMA Existing (53) classrooms; Expansion Utilization total = 79                                                               |
| (A.10)                                                                                    | Classroom - 900-999 (Rms.383, 386)         | Varies                                   | 2        | 1,900       | Varies   | 2        | 1,900       | 950                                                                                    | 2        | 1,900       | 950      | 2        | 1,900                               |          |                  | English CRs = 14; Expand Utiliz. @18.99= 19                                                                                   |
| A.12                                                                                      | Classroom - 800-899 (Rm.346) SWS.10        | 830                                      | 1        | 830         | 830      | 1        | 830         | 830                                                                                    | 1        | 830         | 830      | 1        | 830                                 |          |                  | Soc. S CRs = 11; Expand Utiliz. @18.40 = 19                                                                                   |
| A.13                                                                                      | Classroom - 700-799 (also see SWS.11)      | Varies                                   | 33       | 22,960      | Varies   | 33       | 22,960      | Varies                                                                                 | 33       | 22,960      | Varies   | 33       | 22,960                              |          |                  | Math CRs = 13; Expand Utiliz. @20.84 = 21                                                                                     |
| A.14                                                                                      | Classroom - 600-699 (also see SWS.12)      | Varies                                   | 17       | 11,360      | Varies   | 17       | 11,360      | under sized Classrooms; Renovate as full size Classroom A.10 with adjacent Small Group |          |             |          |          |                                     |          |                  | World Lang CRs = 11; Expand Utiliz. @19.16 = 20                                                                               |
| A.15                                                                                      | Classroom - 500-599 (Rms. 384, 387)        | Varies                                   | 2        | 1,170       | Varies   | 2        | 1,170       | Break-out Rms see CS.50; OR as Teacher Planning see T.10; Options pending planning     |          |             |          |          |                                     |          |                  | Rms. 140, 131, 133, 144, 266, 258, 262, 260, 261, 265, 395, 343, 341, 344, 392, 386, 309                                      |
| A.16                                                                                      | Classroom - 400-499 (Rm.342)               | 490                                      | 1        | 490         | Varies   | 1        | 490         | 900                                                                                    | 4        | 3,600       | 900      | 4        | 3,600                               |          |                  | 13,020                                                                                                                        |
| A.18                                                                                      | RENO Science Class.Labs 900 - 999 see S.43 |                                          |          |             | Varies   | 6        | 5,640       | Varies                                                                                 | 6        | 5,640       | Varies   | 6        | 5,640                               |          |                  | BRYT                                                                                                                          |
| A.19                                                                                      | RENO Science Class.Labs 800 - 899 see S.44 |                                          |          |             | Varies   | 6        | 5,160       | Varies                                                                                 | 6        | 5,160       | Varies   | 6        | 5,160                               |          |                  | (Renovate Rms. 350, 357, 360, 362, 371, 375)                                                                                  |
| A.17                                                                                      | NEW Expansion Classrooms - 900             |                                          |          |             | 900      | 10       | 9,000       | 900                                                                                    | 26       | 23,400      | 900      | 28       | 25,200                              |          |                  | (Renovate Rms. 345, 354, 359, 378, 379, 380) CRs per Grade/Department/Sections vs. Collaboration/Creativity/Interdisciplinary |
| A.20                                                                                      | NEW Flexible Classroom w/dividing wall     |                                          |          |             |          |          |             | 900                                                                                    | 4        | 3,600       | 900      | 8        | 7,200                               |          |                  | 2 paired Classrooms with dividing partition - expandable to one                                                               |
| A.30                                                                                      | Tutorial Classrooms                        |                                          | 3        | 1,850       |          | 3        | 1,850       |                                                                                        | 4        | 2,550       |          | 4        | 2,550                               |          |                  | Tutorial CRs=3; Expand Utiliz @5.882 = 5 or 6                                                                                 |
| A.31                                                                                      | Tutorial (Rm.201)                          | 700                                      | 1        | 700         | 700      | 1        | 700         | 700                                                                                    | 1        | 700         | 700      | 1        | 700                                 |          |                  |                                                                                                                               |
| A.32                                                                                      | Tutorial (Rm.267)                          | 470                                      | 1        | 470         | 470      | 1        | 470         | 470                                                                                    | 1        | 470         | 470      | 1        | 470                                 |          |                  |                                                                                                                               |
| A.33                                                                                      | Tutorial (Rm.283)                          | 680                                      | 1        | 680         | 680      | 1        | 680         | 680                                                                                    | 1        | 680         | 680      | 1        | 680                                 |          |                  |                                                                                                                               |
|                                                                                           | NEW Tutorial                               |                                          |          |             | 700      | 1        | 700         | 700                                                                                    | 1        | 700         | 700      | 1        | 700                                 |          |                  |                                                                                                                               |
| A.40                                                                                      | NEW Multi-Use Large Group Rm w/storage     |                                          |          |             | 1,200    | 2        | 2,400       | 1,200                                                                                  | 2        | 2,400       | 1,200    | 2        | 2,400                               |          |                  | * Per Eq Plan DRAFT pg.56 w/flexible furniture needs storage; lectures. Also see CS.50                                        |
| A.50                                                                                      | Study Hall Classroom                       | 600                                      | 1        | 600         | 600      | 1        | 600         | 600                                                                                    | 1        | 600         | 600      | 1        | 600                                 |          |                  | also see Maker Spaces CS.20 SMMA Study-Hall (CR=1; Exp.Utiliz.@=1 (was@IT Rms.122=345 +122A=270)                              |

BHS EDUCATION PLAN  
MA-STATE HIGH SCHOOL STANDARDS

ENROLLMENT ACCOMMODATION

MAY 2017 ISSUE

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSBA Guidelines

### 3. Space Summary OPTIONS 1, 2 & 3

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSEA Guidelines

**SUMMARY**

**ENROLLMENT ACCOMMODATION**

**MA-STATE HIGH SCHOOL STANDARDS**

**BHS EDUCATION PLAN**

MAY 2017 Issue

| group                                                                                                 | ROOM TYPE | BHS CAMPUS Existing Conditions Inventory |          | OPTION 1     |                       | OPTION 2 |              | OPTION 3              |          | MSBA Guidelines for 2700 Enrollment |                       | Comments / Notes                                                                                |
|-------------------------------------------------------------------------------------------------------|-----------|------------------------------------------|----------|--------------|-----------------------|----------|--------------|-----------------------|----------|-------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------|
|                                                                                                       |           | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals  | ROOM NFA <sup>1</sup> | # OF RMS | area totals  | ROOM NFA <sup>1</sup> | # OF RMS | area totals                         | ROOM NFA <sup>1</sup> |                                                                                                 |
| <b>ACE - Alternative Choices in Education</b><br><small>(review Share with SWS program group)</small> |           |                                          |          | <b>4,540</b> |                       |          | <b>4,540</b> |                       |          |                                     |                       |                                                                                                 |
| <b>Main Building - 115 Greenough</b>                                                                  |           |                                          | 4        |              |                       |          |              |                       |          |                                     | 0                     | ACE                                                                                             |
| ACE.10 ACE Math (Rm.255)                                                                              |           | 750                                      | 1        | 750          | 750                   | 1        | 750          | 900                   | 4        | 3,600                               |                       | confirm impact of enrollment on program space                                                   |
| ACE History / Social Studies (Rm.253)                                                                 |           | 660                                      | 1        | 660          | 660                   | 1        | 660          |                       |          |                                     |                       | Expansion Utilization @ 6 w/ 70 students current @ 43 students and max./cap @ 48                |
| ACE English (Rm.250)                                                                                  |           | 690                                      | 1        | 690          | 690                   | 1        | 690          |                       |          |                                     |                       | confirm Classroom size 750 or 900                                                               |
| ACE.10 Expansion ACE Classroom - 750                                                                  |           |                                          |          | 900          | 900                   | 1        | 900          |                       |          |                                     |                       | Note or use adjacent to Classroom Rm. 258 =680                                                  |
| ACE.40 ACE Science (Rm.254)                                                                           |           | 730                                      | 1        | 730          | 730                   | 1        | 730          | 730                   | 1        | 730                                 |                       | It is possible that ACE programs are growing, plus other thematic academic programs are growing |
| ACE.60 ACE General Offices / Reception                                                                |           | 430                                      | 1        | 430          | 430                   | 1        | 430          | 430                   | 1        | 430                                 |                       |                                                                                                 |
| ACE.61 ACE Coordinator Office                                                                         |           | 160                                      | 1        | 160          | 160                   | 1        | 160          | 160                   | 1        | 160                                 |                       |                                                                                                 |
| ACE.62 ACE Guidance                                                                                   |           | 220                                      | 1        | 220          | 220                   | 1        | 220          | 220                   | 1        | 220                                 |                       |                                                                                                 |
| <b>SWS - SCHOOL WITHIN A SCHOOL</b>                                                                   |           |                                          |          | <b>2,790</b> |                       |          | <b>2,790</b> |                       |          |                                     | 0                     | SWS                                                                                             |
| <b>Main Building - 115 Greenough</b>                                                                  |           |                                          | 3        |              |                       |          |              |                       |          |                                     |                       |                                                                                                 |
| SWS.10 SWS-1 Classroom - 800-900 (Rm.403)                                                             |           | 840                                      | 1        | 840          | SWS-1                 | 3        |              | SWS-1                 | 3        |                                     |                       | Exig SWS Classrme=3                                                                             |
| SWS.11 SWS-1 Classroom - 700-800 (Rm.404)                                                             |           | 740                                      | 1        | 740          | 840                   | 1        | 840          | 840                   | 1        | 840                                 |                       | Expand.Uhliz.@3,277 =4; Program expansion requires 2nd SWS                                      |
| SWS.12 SWS-1 Classroom - 600-700 (Rm.406)                                                             |           | 660                                      | 1        | 660          | 740                   | 1        | 740          | 740                   | 1        | 740                                 |                       |                                                                                                 |
| <b>SWS.10 SWS-2 Program Classroom - 900</b>                                                           |           |                                          |          | 660          | 660                   | 1        | 660          | 660                   | 1        | 660                                 |                       |                                                                                                 |
| SWS.40 SWS Science (included in A.40 Science)                                                         |           |                                          |          |              | see A.40              |          |              | 900                   | 3        | 2,700                               |                       | include at Enhanced only                                                                        |
| SWS.60 SWS Office (Rm.400A)                                                                           |           | 100                                      | 1        | 100          | 100                   | 1        | 100          | see A.40              |          |                                     |                       | Expand.Uhliz.@3,277 =4; Program expansion adds a second SWS-2 program                           |
| SWS.61 SWS Secretary Office (Rm.400)                                                                  |           | 130                                      | 1        | 130          | 130                   | 1        | 130          | 100                   | 1        | 100                                 |                       | confirm impact of enrollment expansion on SWS Admin program space                               |
| SWS.62 SWS Conference/ Lounges (Rm.400B)                                                              |           | 320                                      | 1        | 320          | 320                   | 1        | 320          | 130                   | 1        | 130                                 |                       |                                                                                                 |
| <b>ELL</b>                                                                                            |           |                                          |          | <b>990</b>   |                       |          | <b>990</b>   | 320                   | 1        | 320                                 |                       |                                                                                                 |
| <b>Main Building - 115 Greenough</b>                                                                  |           |                                          | 2        |              |                       |          |              |                       |          |                                     | 0                     | ELL                                                                                             |
| ELL.10 ELL - SEI Classroom (Rm.244)                                                                   |           | 520                                      | 1        | 520          | subtotal              | 2        |              |                       |          |                                     |                       | not included in MSBA guidelines                                                                 |
| ELL - SEI Classroom (Rm.239)                                                                          |           | 470                                      | 1        | 470          | 520                   | 1        | 520          | 750                   | 2        | 1,500                               |                       | Expand.Uhliz.@1,335 =2                                                                          |
|                                                                                                       |           |                                          |          |              | 470                   | 1        | 470          |                       |          |                                     |                       | use MSBA Standard Small Group/Seminar 500sf                                                     |

### 3. Space Summary OPTIONS 1, 2 & 3

| SUMMARY                      |                                                                     | ENROLLMENT ACCOMMODATION                 |             | MA-STATE HIGH SCHOOL STANDARDS |             | BHS EDUCATION PLAN |             | Comments / Notes  |             |
|------------------------------|---------------------------------------------------------------------|------------------------------------------|-------------|--------------------------------|-------------|--------------------|-------------|-------------------|-------------|
|                              |                                                                     | ROOM # OF RMS NFA                        | area totals | ROOM # OF RMS NFA              | area totals | ROOM # OF RMS NFA  | area totals |                   |             |
| <b>BROOKLINE HIGH SCHOOL</b> |                                                                     |                                          |             |                                |             |                    |             |                   |             |
| group                        | ROOM TYPE                                                           | BHS CAMPUS Existing Conditions Inventory |             |                                |             |                    |             |                   |             |
|                              |                                                                     | ROOM # OF RMS NFA                        | area totals | ROOM # OF RMS NFA              | area totals | ROOM # OF RMS NFA  | area totals | ROOM # OF RMS NFA | area totals |
|                              | <b>CORE ACADEMIC / SCIENCE CLASS-LABS</b>                           |                                          | 22,290      |                                | 34,800      |                    | 35,000      |                   | 39,560      |
|                              | Main Building - 115 Greenough                                       |                                          |             |                                |             |                    |             |                   |             |
| S.40                         | Science / Laboratories - Classlabs                                  | 23                                       | 20,110      | 24                             | 30,000      | 24                 | 30,000      | 24                | 30,000      |
| S.41                         | Science - 1200-1300 (Rm.366)                                        | 1,240                                    | 1,240       |                                |             |                    |             |                   |             |
| S.42                         | Science - 1000-1100 (Rms 351, 368, 370, 376)                        | Varies                                   | 4,200       |                                |             |                    |             |                   |             |
| S.43                         | Science - 900-999 (Rms. 350, 357, 360, 362, 371, 375)               | Varies                                   | 5,640       |                                |             |                    |             |                   |             |
| S.44                         | Science - 800-899 (Rms. 345, 354, 359, 378, 379, 380)               | Varies                                   | 5,160       |                                |             |                    |             |                   |             |
| S.45                         | Science - 800 (Rm. 373 no windows) @ Greenhouse (Rm.373A repurpose) | 800                                      | 800         |                                |             |                    |             |                   |             |
|                              | Green House (Rm. 373A)                                              | 450                                      | 450         |                                |             |                    |             |                   |             |
| S.46                         | Science - 600-699 (Rms. 358, 361, 364, 352)                         | Varies                                   | 2,620       |                                |             |                    |             |                   |             |
| S.50                         | NEW Science / Classlab                                              |                                          |             |                                |             |                    |             |                   |             |
| S.60                         | Science Prep Room                                                   |                                          |             |                                |             |                    |             |                   |             |
| S.61                         | Prep Room (varies see inventory)                                    | Varies                                   | 1,370       |                                |             |                    |             |                   |             |
| S.62                         | Central Chemical Storage (Rm.372)                                   | Varies                                   | 560         |                                |             |                    |             |                   |             |
| S.63                         | Lab Specialist Office (653F)                                        | 250                                      | 250         |                                |             |                    |             |                   |             |
| S.60                         | Expand Science Prep Room                                            |                                          |             |                                |             |                    |             |                   |             |
| A.70                         | NEW Science Exhibit Space                                           |                                          |             |                                |             |                    |             |                   |             |

**LEGEND**

|                                                                                                                                                                         |                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="background-color: #f9cb9c; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> New                                         | <span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Existing        |
| <span style="background-color: #f8bbd0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Deficient Existing Program Space, see notes | <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> MSBA Guidelines |

### 3. Space Summary OPTIONS 1, 2 & 3

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSBA Guidelines

**SUMMARY** MAY 2017 Issue

| BROOKLINE HIGH SCHOOL                                         | ENROLLMENT ACCOMMODATION |                |                                          | MA-STATE HIGH SCHOOL STANDARDS |          |             | BHS EDUCATION PLAN    |          |             | MSBA GUIDELINES       |          |             | COMMENTS / NOTES |                       |          |
|---------------------------------------------------------------|--------------------------|----------------|------------------------------------------|--------------------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------|------------------|-----------------------|----------|
|                                                               | GROUP                    | BROOKLINE TYPE | BHS CAMPUS Existing Conditions Inventory | ROOM NFA <sup>1</sup>          | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals |                  | ROOM NFA <sup>1</sup> | # OF RMS |
| <b>SMALL GROUP / SEMINAR</b>                                  |                          |                | 0                                        |                                |          | 0           |                       |          | 4,800       |                       |          | 4,800       |                  |                       | 3,000    |
| CS.50 <b>Small Group Seminar (20-30 seats)</b>                |                          |                |                                          |                                |          |             |                       |          | 4,800       |                       |          | 4,800       |                  |                       | 3,000    |
| RENO Small Group Seminars 20-30 occ. @ 500                    |                          |                |                                          |                                |          |             |                       |          | 4,800       |                       |          | 4,800       |                  |                       | 3,000    |
| CS.51 RENO Group Rooms - Medium 12-15 Occ @ 300               |                          |                |                                          |                                |          |             |                       |          | 4,800       |                       |          | 4,800       |                  |                       | 3,000    |
| CS.52 RENO Small Group Conf Rooms - 4-6 Occ @ 120             |                          |                |                                          |                                |          |             |                       |          | 4,800       |                       |          | 4,800       |                  |                       | 3,000    |
| <b>COMMON SHARED / Collaborative Learning</b>                 |                          |                | 5,490                                    |                                |          | 5,490       |                       |          | 15,490      |                       |          | 31,640      |                  |                       | 0        |
| <b>Main Building - 115 Greenough</b>                          |                          |                |                                          |                                |          |             |                       |          | 15,490      |                       |          | 31,640      |                  |                       | 0        |
| CS.10 Martin Luther King Room (Rm. 169)                       |                          |                | 1,410                                    | 1                              | 1,410    | 1,410       | 1                     | 1,410    | 1,410       | 1                     | 1,410    | 1,410       | 1                | 1,410                 | 1,410    |
| CS.11 Language Lab - Large (Rm.230)                           |                          |                | 1,180                                    | 1                              | 1,180    | 1,180       | 1                     | 1,180    | 1,180       | 1                     | 1,180    | 1,200       | 1                | 1,200                 | 1,200    |
| CS.12 Language Lab, Control Rm (Rm. 229)                      |                          |                | 200                                      | 1                              | 200      | 200         | 1                     | 200      | 200         | 1                     | 200      | 200         | 1                | 200                   | 200      |
| CS.13 Language Lab - Medium (Rms. 226)                        |                          |                | 470                                      | 1                              | 470      | 470         | 1                     | 470      | 470         | 1                     | 470      | 600         | 1                | 600                   | 600      |
| CS.14 Computer Lab (Rms. 389)                                 |                          |                | 820                                      | 1                              | 820      | 820         | 1                     | 820      | 820         | 1                     | 820      | 820         | 1                | 820                   | 820      |
| <b>CS.20 NEW Maker Space</b>                                  |                          |                |                                          |                                |          |             |                       |          | 2,000       | 2                     | 4,000    | 2,000       | 4                | 8,000                 | 2,000    |
| CS.21 TEST-Collaborative Space (Basement Rm)                  |                          |                | 1,410                                    | 1                              | 1,410    | 1,410       | 1                     | 1,410    | 1,410       | 1                     | 1,410    | 1,410       | 1                | 1,410                 | 1,410    |
| CS.30 Collab. Learning Commons - Large                        |                          |                |                                          |                                |          |             |                       |          | 1,500       | 2                     | 3,000    | 1,500       | 4                | 6,000                 | 1,500    |
| CS.31 Collab. Learning Commons - Medium                       |                          |                |                                          |                                |          |             |                       |          | 1,000       | 2                     | 2,000    | 1,000       | 4                | 4,000                 | 1,000    |
| CS.32 Collab. Learning Commons - Small                        |                          |                |                                          |                                |          |             |                       |          | 500         | 2                     | 1,000    | 500         | 4                | 2,000                 | 500      |
| Large Flexible Flat-Floor Gathering Space (enclose Courtyard) |                          |                |                                          |                                |          |             |                       |          | 6,000       | 1                     | 6,000    | 6,000       | 1                | 6,000                 | 6,000    |

### 3. Space Summary OPTIONS 1, 2 & 3

BHS EDUCATION PLAN

MA-STATE HIGH SCHOOL STANDARDS

ENROLLMENT ACCOMMODATION

MAY 2017 Issue

SUMMARY

| group                        | ROOM/TYPE                                       | BHS CAMPUS Existing Conditions Inventory |          |             | OPTION 1              |          |             | OPTION 2              |          |             | OPTION 3              |          |             | MSBA Guidelines for 2700 Enrollment |          |             | Comments / Notes                                                                                     |
|------------------------------|-------------------------------------------------|------------------------------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------|-------------------------------------|----------|-------------|------------------------------------------------------------------------------------------------------|
|                              |                                                 | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup>               | # OF RMS | area totals |                                                                                                      |
| <b>BROOKLINE HIGH SCHOOL</b> |                                                 |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | <b>TEACHER PLANNING - Departments / Teams</b>   |                                          |          | 7,080       |                       |          | 9,200       |                       |          | 9,200       |                       |          | 9,200       |                                     |          | 9,200       | TEACHER PLANNING<br>not included in MSBA guidelines                                                  |
|                              | Main Building - 115 Greenough                   |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
| T.10                         | Teacher Planning                                |                                          | 25       |             | existing              | 7,080    |             | existing              | 7,080    |             | existing              | 7,080    |             | 100                                 | 92       | 9,200       | Expand Utilz. For Staff pending Admin and Dean Team configuration; departments vs. interdisciplinary |
|                              | RENO as NEW Teacher Planning                    |                                          |          |             | RENO A.14-A.16        | 2,120    |             | RENO A.14-A.16        | 2,120    |             | RENO A.14-A.16 plus   | 2,120    |             |                                     |          |             |                                                                                                      |
| T.11                         | Science Teacher Office (Rm.363)                 | 470                                      | 1        | 470         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | Science Chair Office (Rm.365= 120 and 365A=80)  | 200                                      | 1        | 200         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | Science Secretary Office (Rm.367)               | 330                                      | 1        | 330         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
| T.12                         | Social Studies Teacher Office (Rm.393)          | 690                                      | 1        | 690         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | Social Studies Chair Office (Rm.393A)           | 120                                      | 1        | 120         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
| T.13                         | English Teacher Office (Rm.394)                 | 690                                      | 1        | 690         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             | English Dept. prefers to be together for collaboration and coordination;                             |
|                              | English Chair Office (Rm.394A)                  | 120                                      | 1        | 120         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | English Office (Rm.339)                         | 250                                      | 1        | 250         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | English Office (Rm.332)                         | 410                                      | 1        | 410         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | English Office (Rm.411)                         | 320                                      | 1        | 320         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | Eng/SS Book Storage (Eng.Rm.396, SS.Rm.390)     | 400                                      | 2        | 800         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | Eng/SS Shared Conference Room (Rm.394B)         | 180                                      | 1        | 180         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | Eng/SS Shared Kitchenette (Rm.394C)             | 170                                      | 1        | 170         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
| T.14                         | Math Teacher Office (Rm.268) w/Kitchen (Rm.271) | 720                                      | 1        | 720         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             | 610sf + 110 sf                                                                                       |
|                              | Math Office - Small (Rm.268A)                   | 100                                      | 1        | 100         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | Math Office - (Rm.272)                          | 110                                      | 1        | 110         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
| T.15                         | Language Resource (Rm.212)                      | 470                                      | 1        | 470         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | Language Chair Office (Rm.212A)                 | 130                                      | 1        | 130         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | Language Office - Small (Rm.212B)               | 100                                      | 1        | 100         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | ELL - SEI Office (Rms.234)                      | Varies                                   | 2        | 240         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             | use MSBA Standard Small Group/Seminar 500sf                                                          |
|                              | Teacher Planning (Rm. 215)                      | 210                                      | 1        | 210         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | Performing Arts Office (Rm.322 and 216)         | 250                                      | 1        | 250         |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
|                              | VArts Offices see also UAB                      |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                                                                      |
| T.20                         | Teacher/Staff Lounge - Kitchenette see K.41     |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |             | See K.41 Kitchenette; (Rm.286 near ACE)                                                              |

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSBA Guidelines



### 3. Space Summary OPTIONS 1, 2 & 3

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSEA Guidelines

**SUMMARY** MAY 2017 ISSUE

**ENROLLMENT ACCOMMODATION**

**MA-STATE HIGH SCHOOL STANDARDS**

**BHS EDUCATION PLAN**

| group                                                    | ROOM/TYPE                                     | BHS CAMPUS Existing Conditions Inventory |          |             | OPTION 1              |          |             | OPTION 2              |          |             | OPTION 3              |          |             | MSBA Guidelines for 2700 Enrollment |          |             | Comments / Notes                                          |
|----------------------------------------------------------|-----------------------------------------------|------------------------------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------|-------------------------------------|----------|-------------|-----------------------------------------------------------|
|                                                          |                                               | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup>               | # OF RMS | area totals |                                                           |
| <b>SPECIAL EDUCATION</b>                                 |                                               | no Winthrop                              |          | 13,610      | no Winthrop           |          | 15,110      | no Winthrop           |          | 17,780      | no Winthrop           |          | 20,280      |                                     |          | 26,180      | SPECIAL EDUCATION                                         |
| <small>(US rooms of different sizes, separately)</small> |                                               |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                           |
| <b>Main Building - 115 Greenough</b>                     |                                               |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                           |
| E.10                                                     | SPECIAL ED. Classroom - Self-Contained        | subtotal                                 | 3,610    |             |                       | 6        |             |                       | 4        | 3,800       |                       |          | 4           | 3,800                               | 950      | 18          | (MSBA SPECIAL ED Self-Contained Classroom w/ Toilet E.20) |
| E.11                                                     | SPECIAL ED - RISE & English (Rm.142)          | 680                                      | 1        | 680         | 680                   | 1        | 680         |                       |          |             |                       |          |             |                                     |          |             | Expand Utiliz. @3.361 =4                                  |
| E.12                                                     | SPECIAL ED - RISE (Rm.146)                    | 700                                      | 1        | 700         | 700                   | 1        | 700         |                       |          |             |                       |          |             |                                     |          |             |                                                           |
| E.13                                                     | SPECIAL ED - CBC (Rm.146)                     | 490                                      | 1        | 490         | 490                   | 1        | 490         |                       |          |             |                       |          |             |                                     |          |             |                                                           |
| E.14                                                     | SPECIAL ED - Math (Rm.237)                    | 490                                      | 1        | 490         | 490                   | 1        | 490         |                       |          |             |                       |          |             |                                     |          |             | 0.286                                                     |
| E.15                                                     | SPECIAL ED - English (Rm.334)                 | 540                                      | 1        | 540         | 540                   | 1        | 540         |                       |          |             |                       |          |             |                                     |          |             | Senior English 0.143; and 0.286                           |
| E.16                                                     | SPECIAL ED - BRIDGE (Rm.105)                  | 660                                      | 1        | 660         | 660                   | 1        | 660         |                       |          |             |                       |          |             |                                     |          |             | Language Academic Home Base                               |
| E.20                                                     | Self-Contained SPECIAL ED Toilet at E.10      |                                          |          |             |                       | 0        |             |                       |          |             |                       |          |             |                                     | 60       | 18          | (MSBA SPECIAL ED Toilet w/ Self-Contained Classroom E.10) |
|                                                          | Toilet Rm. 105 near BRIDGE/ near CBC (Rm.152) | 50                                       | 1        | 50          | 50                    | 1        | 50          |                       |          |             |                       |          |             |                                     |          |             | PT at the Mezzanine Physical Ed./Fitness                  |
| E.30                                                     | Special Ed. Resource Room                     |                                          |          |             |                       |          |             |                       |          | 2,000       |                       |          |             |                                     | 500      | 8           | 4,000                                                     |
| E.31                                                     | Special Ed. Offices (Rm.123) - Psychologist   | 460                                      | 1        | 460         | 460                   | 1        | 460         |                       |          |             |                       |          |             |                                     |          |             | also see E.80's Small Group Room                          |
| E.40                                                     | NEW - PT                                      |                                          |          |             | 1,000                 | 1        | 1,000       |                       |          | 1,000       |                       |          |             |                                     | 1,000    | 1           | 1,000                                                     |
|                                                          | see H.47 - OT/PT PE/Fitness Mezzanine Rm.MQ14 |                                          |          |             | undersized            |          |             |                       |          |             |                       |          |             |                                     |          |             | PT at the Mezzanine Physical Ed./Fitness                  |
| E.41                                                     | NEW - OT                                      |                                          |          |             | 500                   | 1        | 500         |                       |          | 500         |                       |          |             |                                     | 1,000    | 1           | 1,000                                                     |
| E.50                                                     | SP-Transition/Employment (Rm.109B)            | 710                                      | 1        | 710         | 710                   | 1        | 710         |                       |          | 710         |                       |          |             |                                     | 710      | 1           | 710                                                       |
| E.60                                                     | NEW Kitchen and Laundry Facility              |                                          |          |             |                       |          |             |                       |          | 200         |                       |          |             |                                     | 200      | 1           | 200                                                       |
| E.70                                                     | NEW Life Skills Apartment                     |                                          |          |             |                       |          |             |                       |          | 500         |                       |          |             |                                     | 500      | 1           | 500                                                       |
| SPECIAL EDUCATION continues next page                    |                                               |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                           |
| S.E. continues next page                                 |                                               |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |             |                                                           |

### 3. Space Summary OPTIONS 1, 2 & 3

| BROOKLINE HIGH SCHOOL                                                                                                                                                 |                                                  | BHS CAMPUS Existing Conditions Inventory |          | OPTION 1     |                           | OPTION 2 |                           | OPTION 3              |                           | MSBA Guidelines for 2700 Enrollment |                           | Comments / Notes |             |                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------|----------|--------------|---------------------------|----------|---------------------------|-----------------------|---------------------------|-------------------------------------|---------------------------|------------------|-------------|----------------------------------------|
|                                                                                                                                                                       |                                                  | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals  | ROOM NFA <sup>1</sup>     | # OF RMS | area totals               | ROOM NFA <sup>1</sup> | # OF RMS                  | area totals                         | ROOM NFA <sup>1</sup>     |                  | # OF RMS    | area totals                            |
| <p><b>SUMMARY</b> <span style="color: red;">MAY 2017 Issue</span> <b>ENROLLMENT ACCOMMODATION</b> <b>MA-STATE HIGH SCHOOL STANDARDS</b> <b>BHS EDUCATION PLAN</b></p> |                                                  |                                          |          |              |                           |          |                           |                       |                           |                                     |                           |                  |             |                                        |
| group                                                                                                                                                                 | ROOMTYPE                                         | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals  | ROOM NFA <sup>1</sup>     | # OF RMS | area totals               | ROOM NFA <sup>1</sup> | # OF RMS                  | area totals                         | ROOM NFA <sup>1</sup>     | # OF RMS         | area totals | Comments / Notes                       |
| <p>SPECIAL EDUCATION continues previous page<br/>(in terms of different spaces separately)</p>                                                                        |                                                  |                                          |          |              |                           |          |                           |                       |                           |                                     |                           |                  |             |                                        |
| E.80                                                                                                                                                                  | Small Group Room (SP-Tutorial/Centers)           | subtotal                                 | 5,450    |              |                           |          |                           |                       |                           |                                     |                           |                  |             |                                        |
| E.81                                                                                                                                                                  | Small Group Room (@ Rm.334; E.15)                | 240                                      | 1        | 240          | 240                       | 1        | 240                       | 240                   | 1                         | 240                                 | 240                       | 1                | 240         |                                        |
| E.82                                                                                                                                                                  | Special Ed Conference (@ Rm.148; E.13)           | 180                                      | 1        | 180          | 180                       | 1        | 180                       | 180                   | 1                         | 180                                 | 180                       | 1                | 180         |                                        |
| E.82                                                                                                                                                                  | Social & Speech Lang. Therapy (Rm.126)           | 600                                      | 1        | 600          | 600                       | 1        | 600                       | 600                   | 1                         | 600                                 | 600                       | 1                | 600         | Speech and Language Utilz. = 0.294 = 1 |
|                                                                                                                                                                       | Soc.& Spch Lang. Sm.Ofcs @ Rm.126)               | 130                                      | 3        | 390          | 130                       | 3        | 390                       | 130                   | 3                         | 390                                 | 130                       | 3                | 390         |                                        |
|                                                                                                                                                                       | Soc.& Spch Lang. Mid.Ofcs @ Rm.126)              | 180                                      | 2        | 360          | 180                       | 2        | 360                       | 180                   | 2                         | 360                                 | 180                       | 2                | 360         |                                        |
| E.83                                                                                                                                                                  | SPECIAL ED - Small Group - LAHB (Rm.407) confirm |                                          |          |              |                           |          |                           |                       |                           |                                     |                           |                  |             | Language Academic Home Base            |
|                                                                                                                                                                       | Special Ed (Rm. 121B)                            | 210                                      | 1        | 210          | 210                       | 1        | 210                       | 210                   | 1                         | 210                                 | 210                       | 1                | 210         |                                        |
|                                                                                                                                                                       | Special Ed (Rm. 121A)                            | 360                                      | 1        | 360          | 360                       | 1        | 360                       | 360                   | 1                         | 360                                 | 360                       | 1                | 360         |                                        |
| E.84                                                                                                                                                                  | SPECIAL ED - Pathways (Rm.240)                   | 500                                      | 1        | 500          | 500                       | 1        | 500                       | 500                   | 1                         | 500                                 | 500                       | 1                | 500         |                                        |
| E.85                                                                                                                                                                  | Supported Learning (Rm.124)                      | 890                                      | 1        | 890          | 890                       | 1        | 890                       | 890                   | 1                         | 890                                 | 890                       | 1                | 890         |                                        |
| E.86                                                                                                                                                                  | Sp-Learning Centers (Rm.100)                     | 550                                      | 1        | 550          | 550                       | 1        | 550                       | 550                   | 1                         | 550                                 | 550                       | 1                | 550         | was Adult Ed.                          |
|                                                                                                                                                                       | SP.E - Learning Center (Rm.284)                  | 660                                      | 1        | 660          | 660                       | 1        | 660                       | 660                   | 1                         | 660                                 | 660                       | 1                | 660         |                                        |
|                                                                                                                                                                       | SP.E - Learning Center (Rm.311)                  | 740                                      | 1        | 740          | 740                       | 1        | 740                       | 740                   | 1                         | 740                                 | 740                       | 1                | 740         |                                        |
|                                                                                                                                                                       | SP.E - Learning Center English (Rm.407) LAHB     | 520                                      | 1        | 520          | 520                       | 1        | 520                       | 520                   | 1                         | 520                                 | 520                       | 1                | 520         |                                        |
| E.90                                                                                                                                                                  | SPECIAL ED Admin                                 |                                          |          |              |                           |          |                           |                       |                           |                                     |                           |                  |             |                                        |
|                                                                                                                                                                       | Special Ed Chair Office                          | 110                                      | 1        | 110          | 110                       | 1        | 110                       | 110                   | 1                         | 110                                 | 110                       | 1                | 110         |                                        |
|                                                                                                                                                                       | Special Education                                | 120                                      | 1        | 120          | 120                       | 1        | 120                       | 120                   | 1                         | 120                                 | 120                       | 1                | 120         |                                        |
| <b>EXCEL</b>                                                                                                                                                          |                                                  |                                          |          | <b>2,400</b> | <b>total w/SPECIAL ED</b> |          | <b>total w/SPECIAL ED</b> |                       | <b>total w/SPECIAL ED</b> |                                     | <b>total w/SPECIAL ED</b> |                  |             |                                        |
| <b>Main Building - 115 Greenough</b>                                                                                                                                  |                                                  |                                          |          |              | tbd                       |          | tbd                       |                       | tbd                       |                                     | tbd                       |                  |             |                                        |
| EX.10                                                                                                                                                                 | EXCEL (Rm. 203)                                  | 930                                      | 1        | 930          | 930                       | 1        | 930                       | 930                   | 1                         | 930                                 | 930                       | 1                | 930         |                                        |
|                                                                                                                                                                       | EXCEL (Rm. 204)                                  | 560                                      | 1        | 560          | 560                       | 1        | 560                       | 560                   | 1                         | 560                                 | 560                       | 1                | 560         | Expand.Utiliz. @3.6 = 4                |
|                                                                                                                                                                       | EXCEL (Rm. 205)                                  | 280                                      | 1        | 280          | 280                       | 1        | 280                       | 280                   | 1                         | 280                                 | 280                       | 1                | 280         |                                        |
|                                                                                                                                                                       | EXCEL (Rm. 202)                                  | 480                                      | 1        | 480          | 480                       | 1        | 480                       | 480                   | 1                         | 480                                 | 480                       | 1                | 480         |                                        |
| EX.30                                                                                                                                                                 | Excel Office                                     | 150                                      | 1        | 150          | 150                       | 1        | 150                       | 150                   | 1                         | 150                                 | 150                       | 1                | 150         |                                        |
| <b>Winthrop House (Not included in Net and GSF at Baldwin School shares w/ Staff Daycare)</b>                                                                         |                                                  |                                          |          | <b>2,980</b> | <b>total w/SPECIAL ED</b> |          | <b>total w/SPECIAL ED</b> |                       | <b>total w/SPECIAL ED</b> |                                     | <b>total w/SPECIAL ED</b> |                  |             |                                        |
| subtotal                                                                                                                                                              |                                                  |                                          |          | 2,980        | tbd                       |          | tbd                       |                       | tbd                       |                                     | tbd                       |                  |             |                                        |
| W.10                                                                                                                                                                  | Classrooms - Small @ 500sf and 800sf =           | 650                                      | 2        | 1,300        |                           |          |                           |                       |                           |                                     |                           |                  |             |                                        |
| W.11                                                                                                                                                                  | Classrooms - X-Small @ 430sf and 370sf =         | 400                                      | 2        | 800          |                           |          |                           |                       |                           |                                     |                           |                  |             |                                        |
| W.20                                                                                                                                                                  | Boys and Girls Toilets (Shared w/SD. 10          | 150                                      | 2        | 300          |                           |          |                           |                       |                           |                                     |                           |                  |             |                                        |
| W.30                                                                                                                                                                  | Winthrop Offices 130+ 110+ 40 w/shared toilet    | 140                                      | 2        | 280          |                           |          |                           |                       |                           |                                     |                           |                  |             |                                        |
| W.31                                                                                                                                                                  | Winthrop Offices                                 | 100                                      | 2        | 200          |                           |          |                           |                       |                           |                                     |                           |                  |             |                                        |
| W.40                                                                                                                                                                  | Winthrop Storage                                 | 100                                      | 1        | 100          |                           |          |                           |                       |                           |                                     |                           |                  |             |                                        |
| <b>Winthrop House</b>                                                                                                                                                 |                                                  |                                          |          | <b>0</b>     | <b>total w/SPECIAL ED</b> |          | <b>total w/SPECIAL ED</b> |                       | <b>total w/SPECIAL ED</b> |                                     | <b>total w/SPECIAL ED</b> |                  |             |                                        |
| Program similar to existing at Baldwin confirm impact of enrollment on Winthrop Program; Currently @28; max. @ 32-40 Shared with Staff Daycare                        |                                                  |                                          |          | 0            | 0                         |          | 0                         |                       | 0                         |                                     | 0                         |                  |             |                                        |

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSBA Guidelines

### 3. Space Summary OPTIONS 1, 2 & 3

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSEA Guidelines

**SUMMARY**

MAY 2017 ISSUE

**ENROLLMENT ACCOMMODATION**

**MA-STATE HIGH SCHOOL STANDARDS**

**BHS EDUCATION PLAN**

| group                                            | ROOM/TYPE                             | BHS CAMPUS Existing Conditions Inventory |          | OPTION 1    |                       | OPTION 2 |             | OPTION 3              |          | MSEA Guidelines for 2700 Enrollment |                       | Comments / Notes |                                                                                    |                                                                |
|--------------------------------------------------|---------------------------------------|------------------------------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------------------------------|-----------------------|------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------|
|                                                  |                                       | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals                         | ROOM NFA <sup>1</sup> |                  | # OF RMS                                                                           | area totals                                                    |
| <b>BROOKLINE HIGH SCHOOL</b>                     |                                       |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| ART & MUSIC / DANCE                              |                                       |                                          |          | 17,720      |                       |          |             |                       |          |                                     |                       | 11,425           | ART & MUSIC                                                                        |                                                                |
| <i>(Use rooms of different sizes separately)</i> |                                       |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| <b>VISUAL ARTS</b>                               |                                       |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| Main Building - 115 Greenough                    |                                       |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| F.00                                             | Exhibit Gallery / NEW Display         |                                          | 1        | 450         | 450                   | 1        | 450         |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| <b>UAB</b>                                       |                                       |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| F.10                                             | Art Classroom - 25 seats              |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| F.11                                             | Ceramics - UAB Rm.20                  | 1,550                                    | 1        | 1,550       | 1,550                 | 1        | 1,550       |                       |          |                                     |                       |                  | Total Expansion Utilz. @7,059 = 8                                                  |                                                                |
| F.12                                             | Painting (Rm.29)                      | 1,580                                    | 1        | 1,580       | 1,580                 | 1        | 1,580       |                       |          |                                     |                       |                  | Community Artists Exhibit, see Common Shared CS SP- Large Flexible Courtyard Space |                                                                |
| F.13                                             | Drawing (Rm.26)                       | 1,400                                    | 1        | 1,400       | 1,400                 | 1        | 1,400       | 450                   | 1        | 450                                 |                       |                  | NEW Community Display & Gallery (see UAB F.40 and Renovate Rm.27C)                 |                                                                |
| F.14                                             | Metals / Jewelry Making - UAB Rm.21   | 1,480                                    | 1        | 1,480       | 1,480                 | 1        | 1,480       |                       |          |                                     |                       |                  | UAB Display walls at stair Landing                                                 |                                                                |
| F.15                                             | Sculpture (Rm.27C)                    | 470                                      | 1        | 470         | 470                   | 1        | 470         |                       |          |                                     | 1,200                 | 5                | 6,000                                                                              | For Maker-Spaces see Common Shared CS.20                       |
| F.16                                             | NEW Drawing                           |                                          |          |             |                       |          |             | 1,550                 | 1        | 1,550                               |                       |                  |                                                                                    | Expansion Utilz. @.84 = 1                                      |
| NEW Sculpture Studio @ UAB                       |                                       |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| F.17                                             | Renovate portion of Rm.13 see G.23    |                                          |          |             | 1,200                 | 1        | 1,200       | 1,580                 | 1        | 1,580                               |                       |                  |                                                                                    | Expansion Utilz. = 1                                           |
| New Sculpture Outdoor Terrace                    |                                       |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| F.20                                             | Art Workshop w/ Storage & kiln        |                                          |          |             | 1,200                 | 1        | 1,200       | 1,400                 | 1        | 1,400                               |                       |                  |                                                                                    | Expansion Utilz. @1.35 = 2; see NEW F.40                       |
|                                                  | Ceramics & Sculpture Storage          | 40                                       | 1        | 40          | 40                    | 1        | 40          | 1,480                 | 1        | 1,480                               |                       |                  |                                                                                    | Expansion Utilz. = 1                                           |
|                                                  | Kiln Room                             | 240                                      | 1        | 240         | 240                   | 1        | 240         | 470                   | 1        | 470                                 |                       |                  |                                                                                    | Expansion Utilz. = 1                                           |
|                                                  | Clay Room                             | 250                                      | 1        | 250         | 250                   | 1        | 250         | 2,000                 | 1        | 2,000                               |                       |                  |                                                                                    | see F.00 Renovate as Visual Art Display Gallery                |
| F.30                                             | Photography Darkroom Suite - UAB      | 240                                      | 1        | 240         | 240                   | 1        | 240         |                       |          |                                     |                       |                  |                                                                                    | Large scale metal, wood, plaster and ventilation for equipment |
| F.31                                             | Photography Suite - UAB (Rm.30)       | 590                                      | 1        | 590         | 590                   | 1        | 590         |                       |          |                                     |                       |                  |                                                                                    | exterior space not included in net sf                          |
| F.32                                             | Photography Storage - 150+40          | 190                                      | 1        | 190         | 190                   | 1        | 190         | 40                    | 1        | 40                                  |                       |                  |                                                                                    |                                                                |
| F.33                                             | Portrait Studio Suite - UAB 2nd Flr   | 420                                      | 1        | 420         | 420                   | 1        | 420         | 240                   | 1        | 240                                 |                       |                  |                                                                                    |                                                                |
| F.34                                             | Portrait Studio Storage - UAB 2nd Flr | 150                                      | 1        | 150         | 150                   | 1        | 150         | 250                   | 1        | 250                                 |                       |                  |                                                                                    |                                                                |
| see G.30                                         | TV Production Digital design see CE   |                                          |          |             |                       |          |             | 240                   | 1        | 240                                 |                       |                  |                                                                                    | Expansion Utilz. @1.17 = (1 or 2)                              |
| ART & MUSIC/DANCE continues next page            |                                       |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| subtotal 2,850                                   |                                       |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |
| continues next page                              |                                       |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |                                                                                    |                                                                |

### 3. Space Summary OPTIONS 1, 2 & 3

| Group                                       | Room Type                      | ENROLLMENT ACCOMMODATION                 |          | MA-STATE HIGH SCHOOL STANDARDS |          | BHS EDUCATION PLAN       |          | Comments / Notes            |          |
|---------------------------------------------|--------------------------------|------------------------------------------|----------|--------------------------------|----------|--------------------------|----------|-----------------------------|----------|
|                                             |                                | ROOM NFA <sup>1</sup>                    | # OF RMS | ROOM NFA <sup>1</sup>          | # OF RMS | ROOM NFA <sup>1</sup>    | # OF RMS |                             |          |
| <b>BROOKLINE HIGH SCHOOL</b>                |                                |                                          |          |                                |          |                          |          |                             |          |
|                                             |                                | BHS CAMPUS Existing Conditions Inventory |          | OPTION 1                       |          | OPTION 2                 |          | OPTION 3                    |          |
|                                             |                                | ROOM NFA <sup>1</sup>                    | # OF RMS | ROOM NFA <sup>1</sup>          | # OF RMS | ROOM NFA <sup>1</sup>    | # OF RMS | ROOM NFA <sup>1</sup>       | # OF RMS |
|                                             |                                | area totals                              |          | area totals                    |          | area totals              |          | area totals                 |          |
| ART & MUSIC / DANCE continues previous page |                                |                                          |          |                                |          |                          |          |                             |          |
| <b>MUSIC/DANCE</b>                          |                                |                                          |          |                                |          |                          |          |                             |          |
| Performing Arts (also AUD./DRAMA)           |                                |                                          |          |                                |          |                          |          |                             |          |
| Main Building - 115 Greenough               |                                |                                          |          |                                |          |                          |          |                             |          |
| F.40                                        | Band - 50-100 seats (Rm.120)   | 1,750                                    | 1        | 1,750                          |          | 1,750                    |          | 1,500                       | 1        |
| F.41                                        | NEW Band                       |                                          |          | reschedule 2nd section         |          | reschedule 2nd section   |          | 1,500                       | 1        |
| F.42                                        | Chorus - 50-100 seats (Rm.324) | 1,140                                    | 1        | 1,140                          |          | reschedule 2nd section   |          | 1,500                       | 1        |
| F.43                                        | NEW Chorus                     |                                          |          | reschedule 2nd section         |          | reschedule 2nd section   |          | 1,500                       | 1        |
| F.44                                        | Orchestra                      | existig uses J.20 & J.61                 |          | existig uses J.20 & J.61       |          | existig uses J.20 & J.61 |          | see New Music F.11 and F.15 |          |
| F.45                                        | NEW Music Space - Large        |                                          |          |                                |          |                          |          | 1,500                       | 1        |
| F.50                                        | Ensemble                       |                                          |          |                                |          | 200                      | 1        | 200                         | 1        |
| F.51                                        | Music Practice                 |                                          | 2        | 280                            |          | 75                       | 8        | 80                          | 12       |
| F.60                                        | Music Storage (Instruments)    |                                          |          |                                |          | 500                      | 1        | 500                         | 1        |
| <b>Tappan Gym</b>                           |                                |                                          |          |                                |          |                          |          |                             |          |
| F.30                                        | Dance Studio-1                 | 2,950                                    | 1        | 2,950                          |          | 2,950                    | 1        | 2,950                       |          |
|                                             | Dance Studio-2                 | 2,360                                    | 1        | 2,360                          |          | undersized, low ceilings |          | undersized, low ceilings    |          |
| F.31                                        | Dance Storage                  | 250                                      | 2        | 500                            |          | 250                      | 2        | 250                         | 2        |
| F.32                                        | Dance Office-1                 | 40                                       | 1        | 40                             |          | 100                      | 1        | 100                         | 1        |
|                                             | Dance Office-2                 | 100                                      | 1        | 100                            |          | 100                      | 1        | 100                         | 1        |
| F.13                                        | NEW Dance Studio-2             |                                          |          |                                |          | 3,000                    | 1        | 3,000                       | 2        |

**LEGEND**

|                                                                                                                                                                         |                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="background-color: #f4a460; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> New                                         | <span style="background-color: #f4a460; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Existing        |
| <span style="background-color: #f08080; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Deficient Existing Program Space, see notes | <span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> MSBA Guidelines |



### 3. Space Summary OPTIONS 1, 2 & 3

| SUMMARY     | BROOKLINE HIGH SCHOOL                                              | MAY 2017 ISSUE        |          | ENROLLMENT ACCOMMODATION |                       | MA-STATE HIGH SCHOOL STANDARDS |             | BHS EDUCATION PLAN    |          | Comments / Notes                                                                           |
|-------------|--------------------------------------------------------------------|-----------------------|----------|--------------------------|-----------------------|--------------------------------|-------------|-----------------------|----------|--------------------------------------------------------------------------------------------|
|             |                                                                    | ROOM NFA <sup>1</sup> | # OF RMS | area totals              | ROOM NFA <sup>1</sup> | # OF RMS                       | area totals | ROOM NFA <sup>1</sup> | # OF RMS |                                                                                            |
|             | CE (CTE) CAREER TECH, continues previous page                      |                       |          |                          |                       |                                |             |                       |          |                                                                                            |
| <b>G.40</b> | <b>Business-Finance/MSBA (Drafting, Business)</b>                  |                       |          |                          |                       |                                |             |                       |          |                                                                                            |
|             | Main Building - 115 Greenough                                      |                       |          |                          |                       |                                |             |                       |          | CE Expand Utiliz.@3.52 =4; enlarge existng                                                 |
| <b>G.40</b> | School Store (Rm.116)                                              | 400                   | 1        | 400                      | 400                   | 1                              | 400         | 400                   | 1        | 400                                                                                        |
|             | <b>UAB</b>                                                         |                       |          |                          |                       |                                |             |                       |          | schedule as CE; Reno, relocate or new                                                      |
| <b>G.41</b> | Engineering Futures ClassLab Rm.16                                 | 1,090                 | 1        | 1,090                    | 1,090                 | 1                              | 1,090       | 1,090                 | 1        | 1,090                                                                                      |
| <b>G.42</b> | Business/Early Childhood - UAB Rm.31                               | 1,400                 | 1        | 1,400                    | 1,400                 | 1                              | 1,400       | 1,400                 | 1        | 1,400                                                                                      |
| <b>G.43</b> | Information Tech UAB Rm.31A                                        | 340                   | 1        | 340                      | 340                   | 1                              | 340         |                       |          | Confirm space assignment                                                                   |
| <b>G.44</b> | Computer Science - UAB Rm.33                                       | 620                   | 1        | 620                      | 620                   | 1                              | 620         |                       |          | confirm use existing UAB Rm.33 or reno                                                     |
| <b>G.45</b> | NEW Bus./Tech./Computer - ClassLab                                 |                       |          |                          |                       |                                |             | 1,200                 | 1        | 1,200                                                                                      |
|             |                                                                    |                       |          |                          |                       |                                |             |                       |          | also see CS.20 Maker Space                                                                 |
| <b>G.50</b> | <b>CE-Food Prep</b>                                                |                       |          |                          |                       |                                |             |                       |          |                                                                                            |
|             |                                                                    |                       |          |                          |                       |                                |             |                       |          | Expand.Utiliz./Food Prep @G.02 =3                                                          |
| <b>UAB</b>  | Family & Consumer Science - Rm.38                                  | 1,580                 | 1        | 1,580                    | 1,580                 | 1                              | 1,580       | 1,580                 | 1        | 1,580                                                                                      |
| <b>G.51</b> | Renovate and Expand Existing UAB 2nd Floor                         |                       |          |                          |                       |                                |             | 1,000                 | 1        | 1,000                                                                                      |
|             | Family & Consumer Science - Rm.39 @1,000 nsf plus Office & Storage | 1,640                 | 1        | 1,640                    | 1,640                 | 1                              | 1,640       | 1,640                 | 1        | 1,640                                                                                      |
|             |                                                                    |                       |          |                          |                       |                                |             |                       |          | BHS prefers to expand existing rooms rather than add (1) room; 2,000 nsf optimum           |
|             |                                                                    |                       |          |                          |                       |                                |             |                       |          | Rm.39 is undersized; subdivided 1,000 sf; reconfigure storage and office for 1,500 sf min. |
| <b>G.60</b> | <b>Medical Career</b>                                              |                       |          |                          |                       |                                |             |                       |          |                                                                                            |
| <b>G.61</b> | Medical Careers (Rm.347)                                           |                       |          |                          |                       |                                |             |                       |          | Expand.UH1 @.5=1; confirm G.50-G.51 room sizes for occ., equipmt., adjacency               |
| <b>G.62</b> | BHS Shares 700sf Classroom see A.13                                | see A.13              | 1        |                          |                       |                                |             |                       |          | program w/Longwood Medical                                                                 |
| <b>UAB</b>  | Medical Interpretation (at UAB Basement 150sf) *                   | 150                   | 1        | 150                      |                       |                                |             |                       |          | *Also uses the BHS Language Computer Lab                                                   |
|             |                                                                    |                       |          |                          |                       |                                |             |                       |          | Expand.Util. = 1; confirm reno existing OR                                                 |
| <b>G.70</b> | <b>Early Childhood</b>                                             |                       |          |                          |                       |                                |             |                       |          |                                                                                            |
|             | Existing shares space with Business see G.42                       |                       |          |                          |                       |                                |             |                       |          | confirm provide dedicated space; PLUS see                                                  |
|             | NEW Early Education Lab (Observation)                              |                       |          |                          |                       |                                |             | 1,400                 | 1        | 1,400                                                                                      |
|             | Coordinate location and Staff-Daycare see SD.01                    |                       |          |                          | 200                   | 1                              | 200         | 200                   | 1        | 200                                                                                        |
|             |                                                                    |                       |          |                          |                       |                                |             |                       |          | NEW Education Lab w/Observation 1,200 plus 200sf Observ. Office                            |

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSBA Guidelines

### 3. Space Summary OPTIONS 1, 2 & 3

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSEA Guidelines

**SUMMARY**

**MAY 2017 Issue**

**ENROLLMENT ACCOMMODATION**

**MA-STATE HIGH SCHOOL STANDARDS**

**BHS EDUCATION PLAN**

| group                                              | ROOM TYPE                                 | BHS CAMPUS Existing Conditions Inventory |          |             | OPTION 1              |          |             | OPTION 2              |          |             | OPTION 3              |          |             | MSBA Guidelines for 2700 Enrollment |          |                                                                                                                                                                  | Comments / Notes |
|----------------------------------------------------|-------------------------------------------|------------------------------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------|-------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|                                                    |                                           | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup>               | # OF RMS | area totals                                                                                                                                                      |                  |
| <b>BROOKLINE HIGH SCHOOL</b>                       |                                           |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| <b>HEALTH/FITNESS &amp; PHYSICAL EDUCATION</b>     |                                           |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| <i>(List rooms of different sizes separately)</i>  |                                           |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
|                                                    | <b>Main Building - 115 Greenough</b>      |                                          | subtotal | 20,410      |                       |          | 82,840      |                       |          |             |                       |          |             |                                     | 31,320   | HEALTH/FITNESS/ PE                                                                                                                                               |                  |
| H.10                                               | Schlantz Gym - Low Ceiling w/obstructions |                                          | subtotal | 11,835      | 1                     | 11,835   | 32,245      |                       |          |             |                       |          |             |                                     |          | Confirm Off-Site Athletic Facilities for TEAMS Used by Community Rec.                                                                                            |                  |
| H.20                                               | Gym Storeroom                             |                                          |          | Varies      | 2                     | 1,145    |             |                       |          |             |                       |          |             |                                     | 12,000   |                                                                                                                                                                  |                  |
| H.21                                               | Phys. Ed. Storage                         |                                          |          | Varies      | 4                     | 320      |             |                       |          |             |                       |          |             |                                     | 300      |                                                                                                                                                                  |                  |
|                                                    | Sports Store Rooms                        |                                          |          | Varies      | 2                     | 1,740    |             |                       |          |             |                       |          |             |                                     | 500      | plus see HT.21 Tappan Storage                                                                                                                                    |                  |
| H.30                                               | Lockers                                   |                                          | subtotal | 11,945      |                       |          |             |                       |          |             |                       |          |             |                                     | 15,120   | plus see HT.30 Tappan Lockers                                                                                                                                    |                  |
| H.31                                               | Locker Rooms - Boys                       |                                          |          | 5,110       | 1                     | 5,110    |             |                       |          |             |                       |          |             |                                     |          | Renovate and Reconfigure Existing Locker Rooms; also locate near Fitness, Multi-purpose Rm., Dance Studios, and improve changing, shower spaces and make secure. |                  |
| H.32                                               | Locker Room Toilets - Boys                |                                          |          | 190         | 1                     | 190      |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.33                                               | Locker Rooms - Girls                      |                                          |          | 4,680       | 1                     | 4,680    |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.34                                               | Locker Room Toilets - Girls               |                                          |          | Varies      | 2                     | 50       |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.35                                               | Visiting Team Room - Lockers              |                                          |          | 745         | 1                     | 745      |             |                       |          |             |                       |          |             |                                     |          | Confirm Visiting Team Rm and Locker                                                                                                                              |                  |
|                                                    | OR Team Room (Rm.25)                      |                                          |          | 1,170       | 1                     | 1,170    |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
|                                                    |                                           |                                          | subtotal |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.40                                               | Athletic Director's Office                |                                          |          | 345         | 1                     | 345      |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.41                                               | Athletic Director's Secretary             |                                          |          | 145         | 1                     | 145      |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
|                                                    | <b>PE Director</b>                        |                                          |          | 170         | 1                     | 170      |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.42                                               | PE Office's                               |                                          |          | 120         | 1                     | 120      |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.43                                               | PE Workroom                               |                                          |          | 150         | 1                     | 150      |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.44                                               | Officials Office                          |                                          |          | Varies      | 2                     | 160      |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.45                                               | Coaches' Office                           |                                          |          | 80          | 1                     | 80       |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.46                                               | Coaches Toilet and Shower                 |                                          |          | 40          | 1                     | 40       |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| H.47                                               | PE Mezzanine Conference Room              |                                          |          | 1,460       | 1                     | 1,460    |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
| see HT.15                                          | Crew Training                             |                                          |          | 1,310       | 1                     | 1,310    |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |
|                                                    | Fitness                                   |                                          |          | 1,280       | 1                     | 1,280    |             |                       |          |             |                       |          |             |                                     |          | See MSBA PE Alternate below H.15                                                                                                                                 |                  |
| <b>HEALTH/FITNESS &amp; PE continues next page</b> |                                           |                                          |          |             |                       |          |             |                       |          |             |                       |          |             |                                     |          |                                                                                                                                                                  |                  |

### 3. Space Summary OPTIONS 1, 2 & 3

| SUMMARY                                                    | BROOKLINE HIGH SCHOOL | ENROLLMENT ACCOMMODATION |          | MA-STATE HIGH SCHOOL STANDARDS |                             | BHS EDUCATION PLAN |             | Comments / Notes                                                  |
|------------------------------------------------------------|-----------------------|--------------------------|----------|--------------------------------|-----------------------------|--------------------|-------------|-------------------------------------------------------------------|
|                                                            |                       | ROOM NFA <sup>1</sup>    | # OF RMS | area totals                    | ROOM NFA <sup>1</sup>       | # OF RMS           | area totals |                                                                   |
| HEALTH/FITNESS & PE continues previous page                |                       |                          |          |                                |                             |                    |             |                                                                   |
| <b>Tappan Gym - SHARED - BHS &amp; REC.</b>                |                       | subtotal                 | 50,595   | 50,595                         |                             | 77,120             |             | Confirm Off-Site Athletic Facilities for TEAMS                    |
| HT.12 T-GYM-1 Gymnasium - Large                            |                       | 7,130                    | 1        | 7,130                          | 15,000                      | 1                  | 15,000      | Shared with Community Recreation                                  |
| HT.13 T-GYM-2 Gymnasium - Small                            |                       | 5,930                    | 1        | 5,930                          | part of see HT.13           |                    |             | Shared with Community Recreation                                  |
| HT.14 T-Indoor Playing Field - Pavilion                    |                       | 14,980                   | 1        | 14,980                         | Expand see Field House H.70 |                    |             | Shared with Community Recreation                                  |
| H.70 NEW Field House - Expand Indoor Play Field            |                       |                          |          |                                | Expand over Pool            |                    |             | 200m Track, 4-volleyball courts, batting cages, badminton, tennis |
| HT.15 NEW PE Court                                         |                       |                          |          |                                | 6,000                       | 1                  | 6,000       | (MSBA PE Alternate)                                               |
| HT.17 Multi-Purpose Room - Large @ Mezz.                   |                       | 2,200                    | 1        | 2,200                          | 2,200                       | 1                  | 2,200       | locate Multi-purpose near locker rooms                            |
| HT.18 Multi-Purpose - Med. Rm.32                           |                       | 630                      | 1        | 630                            | 630                         | 1                  | 630         |                                                                   |
| HTR.16 Wrestling                                           |                       | 2,380                    | 1        | 2,380                          | 2,380                       | 1                  | 2,380       | Shared with Community Rec.                                        |
| Wrestling Storage                                          |                       | Varies                   | 2        | 340                            | Varies                      | 2                  | 340         |                                                                   |
| HT.20 T-GYM-1 Storage                                      |                       | Varies                   | 2        | 720                            | Varies                      | 2                  | 720         |                                                                   |
| T-GYM-2 Storage                                            |                       | 450                      | 1        | 450                            | 450                         | 1                  | 450         |                                                                   |
| H.430 NEW Lockers (BHS use)                                |                       | subtotal                 | 10,505   | 15,120                         | 15,120                      | 1                  | 15,120      | plus see H.30 BHS Lockers                                         |
| HT.30 * T-Boys Locker & Shower Rooms                       |                       | 5,380                    | 1        | 5,380                          | 5,380                       | 1                  | 5,380       | * REC-Community Use; confirm all TEAMS                            |
| * T-Girls Locker & Shower Rooms                            |                       | 4,270                    | 1        | 4,270                          | 4,270                       | 1                  | 4,270       | * REC-Community Use; confirm all TEAMS                            |
| Coaches Locker & Shower Rooms                              |                       | 855                      | 1        | 855                            |                             |                    |             |                                                                   |
| H.435 NEW Individual Shower Rooms                          |                       |                          |          |                                |                             |                    |             |                                                                   |
| H.40 RENO/NEW Sports Medicine Center                       |                       |                          | 2,270    |                                |                             |                    |             | Staff and Transition                                              |
| HT.40 Coach / Phys Ed Office                               |                       | 260                      | 1        | 260                            | 260                         | 1                  | 260         | locate Fitness near locker rooms                                  |
| Phys Ed Office                                             |                       | 230                      | 1        | 230                            | 230                         | 1                  | 230         |                                                                   |
| Training - Large                                           |                       | 1,100                    | 1        | 1,100                          | 1,100                       | 1                  | 1,100       |                                                                   |
| Training - Small                                           |                       | 340                      | 1        | 340                            | 340                         | 1                  | 340         |                                                                   |
| Phys Ed Office                                             |                       | 60                       | 1        | 60                             | 60                          | 1                  | 60          |                                                                   |
| Officials Room (Rm.124)                                    |                       | 70                       | 1        | 70                             | 70                          | 1                  | 70          |                                                                   |
| Office (Rm.104)                                            |                       | 210                      | 1        | 210                            | 210                         | 1                  | 210         |                                                                   |
| see M.50 NEW Nurse Office for GYM-UAB                      |                       |                          |          |                                | see Medical for sf          |                    |             | Locate New Nurse Ofc.@ TAPPAN Sports Medicine Center              |
| H.50 NEW Wellness/Fitness Center 50+ occ. Flexible         |                       |                          |          |                                | 3,000                       | 1                  | 3,000       | locate Fitness near locker rooms                                  |
| HT.51 Fitness Center                                       |                       | 2,700                    | 1        | 2,700                          | 2,700                       | 1                  | 2,700       |                                                                   |
| Fitness Storage                                            |                       | 180                      | 2        | 360                            | 180                         | 1                  | 180         |                                                                   |
| see F.15 Dance Studio/ Dance Offices see ART & MUSIC/DANCE |                       |                          |          |                                |                             |                    |             | for Dance Studios see F.15 Ed Plan locate dance near locker rooms |

**LEGEND**

|                                                                                                                                                                         |                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="background-color: #f4a460; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> New                                         | <span style="background-color: #f4a460; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Existing        |
| <span style="background-color: #f08080; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Deficient Existing Program Space, see notes | <span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> MSBA Guidelines |



### 3. Space Summary OPTIONS 1, 2 & 3

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSBA Guidelines

**SUMMARY** ENROLLMENT ACCOMMODATION MA-STATE HIGH SCHOOL STANDARDS BHS EDUCATION PLAN

MAY 2017 Issue

| Group                                      | ROOM TYPE                             | BHS CAMPUS Existing Conditions Inventory |          |             | OPTION 1              |          |             | OPTION 2              |          |             | OPTION 3                    |          |             | MSBA Guidelines for 2700 Enrollment |          |             | Comments / Notes                                               |
|--------------------------------------------|---------------------------------------|------------------------------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------|-----------------------------|----------|-------------|-------------------------------------|----------|-------------|----------------------------------------------------------------|
|                                            |                                       | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup>       | # OF RMS | area totals | ROOM NFA <sup>1</sup>               | # OF RMS | area totals |                                                                |
| <b>PERFORMING ARTS: AUDITORIUM / DRAMA</b> |                                       |                                          |          |             |                       |          |             |                       |          |             |                             |          |             |                                     |          |             |                                                                |
| <b>Main Building - 115 Greenough</b>       |                                       |                                          |          |             |                       |          |             |                       |          |             |                             |          |             |                                     |          |             |                                                                |
| J.10                                       | Auditorium                            | 6,210                                    | 1        | 6,210       | 6,210                 | 1        | 6,210       | 6,210                 | 1        | 6,210       | 6,210                       | 1        | 6,210       | 7,500                               | 1        | 7,500       | Existing Auditorium / Drama program space                      |
|                                            | Balcony                               | 2,210                                    | 1        | 2,210       | renovate              |          | 2,210       | renovate              |          | 2,210       | renovate                    |          | 2,210       |                                     |          |             | MSBA based on 750 seats max.                                   |
|                                            | Tech-Balcony                          | 105                                      | 2        | 210         | 105                   | 2        | 210         | 105                   | 2        | 210         | 105                         | 2        | 210         |                                     |          |             | renovate balcony space                                         |
| J.20                                       | Stage                                 | 2,380                                    | 1        | 2,380       | 2,380                 | 1        | 2,380       | 2,380                 | 1        | 2,380       | 2,380                       | 1        | 2,380       | 1,600                               | 1        | 1,600       | catwalk at Fly-loft Rigging                                    |
|                                            | Stage Office                          | 70                                       | 1        | 70          | 70                    | 1        | 70          | 70                    | 1        | 70          | 100                         | 1        | 100         |                                     |          |             |                                                                |
|                                            | Stage Shower                          | 20                                       | 1        | 20          | 20                    | 1        | 20          | 20                    | 1        | 20          | reno or repurpose w/ office |          |             |                                     |          |             | confirm all existing performing arts storage, and to remain    |
| J.30                                       | Auditorium Storage                    | confirm all                              |          |             |                       |          |             |                       |          |             |                             |          |             |                                     |          |             |                                                                |
| J.40                                       | Make-up / Dressing Rooms              | Varies                                   | 2        | 180         | Varies                | 2        | 180         | Varies                | 2        | 180         | 300                         | 2        | 600         | 300                                 | 2        | 600         |                                                                |
| J.41                                       | Green Room                            | 215                                      | 1        | 215         | 215                   | 1        | 215         | 215                   | 1        | 215         | 215                         | 2        | 430         |                                     |          |             |                                                                |
| J.50                                       | Controls / Lighting / Projection      | 95                                       | 1        | 95          | 95                    | 1        | 95          | 95                    | 1        | 95          | 200                         | 1        | 200         | 200                                 | 1        | 200         |                                                                |
|                                            | Scenery Workshop                      | 750                                      | 1        | 750         | 750                   | 1        | 750         | 750                   | 1        | 750         | 2,000                       | 1        | 2,000       |                                     |          |             | Not included in MSBA space standards                           |
|                                            | Scenery Workshop Office               | 135                                      | 2        | 270         | 135                   | 2        | 270         | 135                   | 2        | 270         | 135                         | 2        | 270         |                                     |          |             | additional program space totals                                |
| J.60                                       | Black Box Theater (Rm. 323)           | 1,860                                    | 1        | 1,860       | 1,860                 | 1        | 1,860       | 3,000                 | 1        | 3,000       | 3,000                       | 1        | 3,000       |                                     |          |             | New includes 2400 Box, 200 Controls, 200 Lighting, 200 Storage |
|                                            | Black Box Control Room (Rm. 319)      | 260                                      | 1        | 260         | use 1,600 repurpose   |          | 1,860       | use 1,600 repurpose   |          | 1,860       | 2,000                       | 1        | 2,000       |                                     |          |             | Orchestra; Drama Set Storage; Back Stage Power                 |
| J.61                                       | White Box (Rm. 220) Orchestra & Drama | 1,720                                    | 1        | 1,720       | 1,720                 | 1        | 1,720       | subtotal              | 8,000    | 2,000       | 1                           | 2,000    |             |                                     |          |             |                                                                |
| J.70                                       | New Theatre 400 seat                  |                                          |          |             |                       |          |             |                       |          |             | 4,000                       | 1        | 4,000       |                                     |          |             | Education Plan                                                 |
|                                            | New Theatre Stage                     |                                          |          |             |                       |          |             |                       |          |             | 2,000                       | 1        | 2,000       |                                     |          |             |                                                                |
|                                            | New Theatre Control Rm                |                                          |          |             |                       |          |             |                       |          |             | 500                         | 1        | 500         |                                     |          |             |                                                                |
|                                            | New Theatre Catwalk / Lighting        |                                          |          |             |                       |          |             |                       |          |             | 1,000                       | 1        | 1,000       |                                     |          |             |                                                                |
|                                            | New Theatre Piano Storage/ Storage    |                                          |          |             |                       |          |             |                       |          |             | 500                         | 1        | 500         |                                     |          |             |                                                                |

### 3. Space Summary OPTIONS 1, 2 & 3

| SUMMARY                                      | BROOKLINE HIGH SCHOOL | MAY 2017 Issue                           |             | ENROLLMENT ACCOMMODATION |             | MA-STATE HIGH SCHOOL STANDARDS |             | BHS EDUCATION PLAN |                         | Comments / Notes                                                          |        |   |                                            |                                                             |
|----------------------------------------------|-----------------------|------------------------------------------|-------------|--------------------------|-------------|--------------------------------|-------------|--------------------|-------------------------|---------------------------------------------------------------------------|--------|---|--------------------------------------------|-------------------------------------------------------------|
|                                              |                       | BHS CAMPUS Existing Conditions Inventory |             | OPTION 1                 |             | OPTION 2                       |             | OPTION 3           |                         |                                                                           |        |   |                                            |                                                             |
|                                              |                       | ROOM NFA'                                | # OF RMS    | ROOM NFA'                | # OF RMS    | ROOM NFA'                      | # OF RMS    | ROOM NFA'          | # OF RMS                |                                                                           |        |   |                                            |                                                             |
| group                                        | ROOM TYPE             | area totals                              | area totals | area totals              | area totals | area totals                    | area totals | area totals        | area totals             |                                                                           |        |   |                                            |                                                             |
| DINING & FOOD SERVICE                        |                       | 17,395                                   | 18,520      | 18,520                   | 18,520      | 18,520                         | 18,520      | 18,520             | 19,850                  | DINING & FOOD SERVICE<br>27,000 enroll; adds 1,440 nsf per MSBA standards |        |   |                                            |                                                             |
| Main Building - 115 Greenough                |                       |                                          |             |                          |             |                                |             |                    |                         |                                                                           |        |   |                                            |                                                             |
| K.10 Cafeteria / Student Lounge / Break-out  |                       | 9,250                                    | 1           | 9,250                    | 1           | 9,250                          | 1           | 9,250              | 13,500                  | 1                                                                         | 13,500 | 1 | existing space is not to current standards |                                                             |
| Cafeteria Overflow (Rms. 112A=640; 112B=940) |                       | 1,580                                    | 1           | 1,580                    | 1           | 1,580                          | 1           | 1,580              |                         |                                                                           |        |   |                                            |                                                             |
| New Expand Cafeteria                         |                       | 2,690                                    | 1           | 2,690                    | 1           | 2,690                          | 1           | 2,690              |                         |                                                                           |        |   |                                            |                                                             |
| K.11 Chair / Table Storage                   |                       | confirm                                  | 0           |                          |             |                                |             |                    |                         |                                                                           |        |   |                                            | assume use existing; confirm location(s)                    |
| K.20 Scramble Serving Area                   |                       | 1,990                                    | 1           | 1,990                    | 1           | 1,990                          | 1           | 1,990              | 825                     | 1                                                                         | 825    | 1 | 825                                        | assume use existing; confirm location(s)                    |
| Renovate Reconfigure Servery Kitchen         |                       |                                          |             |                          |             |                                |             |                    | existing                |                                                                           |        |   | 600                                        | Renovate and Reconfigure Servery                            |
| K.30 Kitchen                                 |                       | 1,525                                    | 1           | 1,525                    | 1           | 1,525                          | 1           | 1,525              | existing                | subtotal                                                                  | 1,525  | 1 | 4,000                                      | OR New Servery/Kitchen at min. 4,800 sft to 5,000           |
| Kitchen Office                               |                       | 95                                       | 1           | 95                       | 1           | 95                             | 1           | 95                 | existing                | subtotal                                                                  | 1,525  | 1 | 4,000                                      | assume renovate existing                                    |
| Ingredients Storage                          |                       | 470                                      | 1           | 470                      | 1           | 470                            | 1           | 470                |                         |                                                                           |        |   |                                            |                                                             |
| Dry Storage                                  |                       | Varies                                   | 2           | 960                      | 2           | 960                            | 2           | 960                |                         |                                                                           |        |   |                                            |                                                             |
| K.40 Staff Lounge (Rm.171)                   |                       | 1,485                                    | 1           | 1,485                    | 1           | 1,485                          | 1           | 1,485              | review BHS Food Service |                                                                           |        |   | 925                                        | per MSBA standards no added space; review with Food Service |
|                                              |                       |                                          |             |                          |             |                                |             |                    | 1,485                   | 1                                                                         | 1,485  | 1 | 925                                        | Existing Staff Lounge; or repurpose                         |

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSBA Guidelines

### 3. Space Summary OPTIONS 1, 2 & 3

LEGEND  
New  
Existing  
Deficient Existing Program Space, see notes  
MSBA Guidelines

#### SUMMARY

MAY 2017 Issue

#### ENROLLMENT ACCOMMODATION

#### MA-STATE HIGH SCHOOL STANDARDS

#### BHS EDUCATION PLAN

| group                        | ROOMTYPE                                   | BHS CAMPUS Existing Conditions Inventory |              |  | OPTION 1      |             |               | OPTION 2      |               |   | OPTION 3      |             |               | MSBA Guidelines for 2700 Enrollment |               |                                                                             | Comments / Notes |
|------------------------------|--------------------------------------------|------------------------------------------|--------------|--|---------------|-------------|---------------|---------------|---------------|---|---------------|-------------|---------------|-------------------------------------|---------------|-----------------------------------------------------------------------------|------------------|
|                              |                                            | ROOM # OF RMS                            | area totals  |  | ROOM # OF RMS | area totals |               | ROOM # OF RMS | area totals   |   | ROOM # OF RMS | area totals |               | ROOM # OF RMS                       | area totals   |                                                                             |                  |
| <b>BROOKLINE HIGH SCHOOL</b> |                                            |                                          |              |  |               |             |               |               |               |   |               |             |               |                                     |               |                                                                             |                  |
|                              | <b>LIBRARY / MEDIA CENTER</b>              |                                          | <b>9,070</b> |  |               |             | <b>16,800</b> |               | <b>16,800</b> |   | <b>16,800</b> |             | <b>16,775</b> | <b>16,775</b>                       | <b>16,775</b> | <b>LIBRARY / MEDIA CENTER</b>                                               |                  |
| L.10                         | Library / Media Center                     | 6,570                                    | 6,570        |  | 6,570         | 1           | 6,570         |               |               |   |               |             | 16,775        | 1                                   | 16,775        | 27,000 enroll; adds 2,760 nsf per MSBA standards                            |                  |
| L.11                         | Expansion & NEW Library / Media Center     |                                          |              |  | 7,730         | 1           | 7,730         |               | 16,800        | 1 | 16,800        |             | 16,800        | 1                                   | 16,800        | Include spaces for book collection, and quiet study rooms Small Group Rooms |                  |
|                              | includes Book Stack Reading Area           |                                          |              |  |               |             |               |               |               |   |               |             |               |                                     |               | review hub and spoke/satellite spaces;                                      |                  |
|                              | includes New Study Rooms see L.30          |                                          |              |  |               |             |               |               |               |   |               |             |               |                                     |               |                                                                             |                  |
|                              | includes New Project Area                  |                                          |              |  |               |             |               |               |               |   |               |             |               |                                     |               |                                                                             |                  |
| L.20                         | Library Tech Center                        | 1,150                                    | 1,150        |  | 1,150         | 1           | 1,150         |               |               |   |               |             |               |                                     |               |                                                                             |                  |
| L.30                         | Library Study Room                         | 70                                       | 140          |  | 70            | 2           | 140           |               |               |   |               |             |               |                                     |               |                                                                             |                  |
| L.40                         | Library Workroom (Rm.28 1A)                | 420                                      | 420          |  | 420           | 1           | 420           |               |               |   |               |             |               |                                     |               |                                                                             |                  |
|                              | Library Office                             | 140                                      | 140          |  | 140           | 1           | 140           |               |               |   |               |             |               |                                     |               |                                                                             |                  |
| L.50                         | Media Center Computer Lab (Rms. 277)       | 650                                      | 650          |  | 650           | 1           | 650           |               |               |   |               |             |               |                                     |               | coord and confirm with Visual Arts and Career Ed./CTE                       |                  |
|                              |                                            |                                          |              |  |               |             |               |               |               |   |               |             |               |                                     |               |                                                                             |                  |
|                              |                                            |                                          |              |  |               |             |               |               |               |   |               |             |               |                                     |               |                                                                             |                  |
|                              | <b>MEDICAL</b>                             |                                          | <b>1,130</b> |  |               |             | <b>1,590</b>  |               | <b>1,620</b>  |   | <b>2,070</b>  |             |               |                                     | <b>2,010</b>  | <b>MEDICAL</b>                                                              |                  |
|                              | (List rooms of different sizes separately) |                                          |              |  |               |             |               |               |               |   |               |             |               |                                     |               |                                                                             |                  |
|                              | subtotal                                   |                                          | 1,010        |  |               |             |               |               |               |   |               |             |               |                                     |               | 27,000 enroll; adds 680 nsf per MSBA standards                              |                  |
| M.11                         | Medical Suite Toilet                       | 50                                       | 50           |  | 60            | 2           | 120           |               | 60            | 2 | 120           |             | 60            | 1                                   | 60            | Ed Plan indicates (2) accessible Toilets                                    |                  |
| M.10                         | Nurse General / Waiting Room               | 580                                      | 580          |  | 580           | 1           | 580           |               | 400           | 1 | 400           |             | 250           | 1                                   | 250           |                                                                             |                  |
|                              | Nurse Waiting                              | 70                                       | 70           |  | 70            | 1           | 70            |               |               |   |               |             |               |                                     | 17            |                                                                             |                  |
| M.12                         | Interview Room                             |                                          |              |  |               |             |               |               | 100           | 4 | 400           |             | 100           | 6                                   | 600           |                                                                             |                  |
|                              | Exam Room / Resting                        |                                          | 220          |  | Varies        | 2           | 220           |               | 100           | 6 | 600           |             | 100           | 11                                  | 1,100         |                                                                             |                  |
| M.13                         | NEW Exam/ Restg or Interview Rooms         |                                          |              |  | 100           | 5           | 500           |               |               |   |               |             |               |                                     |               |                                                                             |                  |
| M.14                         | Lab                                        | 90                                       | 90           |  | 100           | 1           | 100           |               | 100           | 1 | 100           |             | 100           | 1                                   | 100           |                                                                             |                  |
|                              | Tappan GYM - Medical Office                |                                          |              |  |               |             |               |               |               |   |               |             |               |                                     |               |                                                                             |                  |
| M.50                         | NEW Nurse Ofc for GYM-UAB                  |                                          |              |  |               |             |               |               |               |   |               |             |               |                                     |               | Locate New Nurse Ofc. @ TAPPAN Sports Medicine Center                       |                  |
|                              | UAB - Medical Office                       |                                          |              |  |               |             |               |               |               |   |               |             |               |                                     |               |                                                                             |                  |
| M.55                         | Nurse Office - UAB (Rm.23A)                |                                          | 120          |  | 120           | 1           | 120           |               | 120           | 1 | 120           |             | 120           | 1                                   | 120           | Town Medical Nurse Office for District                                      |                  |

### 3. Space Summary OPTIONS 1, 2 & 3

| SUMMARY | BROOKLINE HIGH SCHOOL                                                      | BHS CAMPUS Existing Conditions Inventory |          | OPTION 1    |                       | OPTION 2 |             | OPTION 3              |          | MSBA Guidelines for 2700 Enrollment |                       | Comments / Notes                                                                                                                                                           |
|---------|----------------------------------------------------------------------------|------------------------------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         |                                                                            | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals                         | ROOM NFA <sup>1</sup> |                                                                                                                                                                            |
|         | <b>ADMINISTRATION</b><br><i>(List rooms of different sizes separately)</i> |                                          |          | 7,300       |                       |          | 8,240       |                       | 8,440    |                                     | 4,720                 |                                                                                                                                                                            |
|         | Main Building - 115 Greenough                                              |                                          |          |             |                       |          |             |                       |          |                                     |                       | MSBA total includes ADMIN. & GUIDANCE Combined Total = 8,658                                                                                                               |
| N.10    | Main Office (MSBA General Office/Waiting)                                  | 500                                      | 1        | 500         | 500                   | 500      | 500         | 500                   | 500      | 1                                   | 1,350                 | Additional Space PENDING                                                                                                                                                   |
| N.11    | Secretary Office                                                           | 350                                      | 1        | 350         | 350                   | 350      | 350         | 350                   | 350      |                                     |                       | Expand Utilz. Not calculated for STAFF                                                                                                                                     |
| N.12    | Secretary Office                                                           | 190                                      | 1        | 190         | 190                   | 190      | 190         | 190                   | 190      |                                     |                       |                                                                                                                                                                            |
| N.13    | Registrar                                                                  | 150                                      | 1        | 150         | 150                   | 150      | 150         | 150                   | 150      |                                     |                       |                                                                                                                                                                            |
| N.14    | Waiting Area                                                               | 320                                      | 1        | 320         | 320                   | 320      | 320         | 320                   | 320      |                                     |                       |                                                                                                                                                                            |
| N.20    | Teachers' Mail and Time Room                                               |                                          |          |             |                       |          |             |                       |          |                                     |                       |                                                                                                                                                                            |
| N.21    | Copy (MSBA Duplicating Rm)                                                 | 80                                       | 1        | 80          | 80                    | 80       | 80          | 80                    | 80       |                                     |                       | confirm existing                                                                                                                                                           |
| N.23    | Workroom - BHS Rm.162D                                                     | 200                                      | 1        | 200         | 200                   | 200      | 200         | 200                   | 200      |                                     |                       |                                                                                                                                                                            |
| N.23    | Records Storage                                                            | 100                                      | 1        | 100         | 100                   | 100      | 100         | 100                   | 100      |                                     |                       |                                                                                                                                                                            |
| N.30    | Headmasters Office                                                         | 390                                      | 1        | 390         | 390                   | 390      | 390         | 390                   | 390      |                                     |                       |                                                                                                                                                                            |
| N.31    | Headmasters Secretary                                                      | 180                                      | 1        | 180         | 180                   | 180      | 180         | 180                   | 180      |                                     |                       |                                                                                                                                                                            |
| N.32    | Assist. Head Masters Office - AH1                                          | 240                                      | 1        | 240         | 240                   | 240      | 240         | 240                   | 240      |                                     |                       |                                                                                                                                                                            |
| N.33    | Assist. Head Masters Office -AH2 (MSBA)                                    |                                          |          |             |                       |          |             |                       |          |                                     |                       |                                                                                                                                                                            |
| N.34    | Deans Office.1                                                             | 200                                      | 1        | 200         | 200                   | 200      | 200         | 200                   | 200      |                                     |                       |                                                                                                                                                                            |
|         | Deans Office.2                                                             | 240                                      | 1        | 240         | 240                   | 240      | 240         | 240                   | 240      |                                     |                       |                                                                                                                                                                            |
|         | <b>NEW Deans Office @ Dean Teams</b>                                       |                                          |          |             | 200                   | 4        | 800         |                       | 250      | 4                                   | 1,000                 | Existing Dean Teams clusters include Guidance Offices; (1) Conference Rm; +/- (4) Offices and (1) Advisory Office; (6) Assoc. Dean s staff offices; (4) Rooms with 8-staff |
| N.37    | Associate Deans Office                                                     | 140                                      | 2        | 280         | 140                   | 2        | 280         |                       | 140      | 1                                   | 140                   |                                                                                                                                                                            |
|         | Social Worker ( Rm. 317J)                                                  | 140                                      | 1        | 140         | 140                   | 1        | 140         |                       | 140      | 1                                   | 140                   |                                                                                                                                                                            |
|         | ISS Office (Rm. 313)                                                       | 140                                      | 1        | 140         | 140                   | 1        | 140         |                       | 140      | 1                                   | 140                   |                                                                                                                                                                            |
|         | <b>NEW Assoc.Deans Offices @ Dean Teams</b>                                |                                          |          |             | 140                   | 4        | 560         |                       | 140      | 4                                   | 560                   |                                                                                                                                                                            |
| N.38    | Spare Office / Supervisory                                                 |                                          |          |             |                       |          |             |                       |          |                                     |                       |                                                                                                                                                                            |
|         | Dean Secretary Office (217A)                                               | 110                                      | 1        | 110         | 110                   | 1        | 110         |                       |          |                                     |                       |                                                                                                                                                                            |
|         | Office                                                                     | 50                                       | 1        | 50          | 50                    | 1        | 50          |                       |          |                                     |                       |                                                                                                                                                                            |
|         | Reception                                                                  | 170                                      | 1        | 170         | 170                   | 1        | 170         |                       |          |                                     |                       |                                                                                                                                                                            |
| N.40    | African-American/Latino Scholars (Rm.167)                                  | 310                                      | 1        | 310         | 310                   | 1        | 310         |                       |          |                                     |                       | ED Plan pg. 59                                                                                                                                                             |
|         | BRYT Offices (Rm. 107)                                                     | 720                                      | 1        | 720         | 720                   | 1        | 720         |                       | 720      | 1                                   | 720                   | and or Existing Rm. 102                                                                                                                                                    |
|         | STEP TO SUCCESS - Career Center (Rm.163)                                   | 650                                      | 1        | 650         | 650                   | 1        | 650         |                       | 650      | 1                                   | 650                   | Coordinate with N.80 Guidance & UAB Career                                                                                                                                 |
|         | METCO Office (Rm.170)                                                      | 630                                      | 1        | 630         | 630                   | 1        | 630         |                       | 630      | 1                                   | 630                   |                                                                                                                                                                            |
|         | Admin. Conference (Rm.164)                                                 | 550                                      | 1        | 550         | 550                   | 1        | 550         |                       | 550      | 1                                   | 550                   | Used for College MCAS testing                                                                                                                                              |
|         | Teachers Work Room                                                         |                                          |          |             |                       |          |             |                       |          |                                     |                       |                                                                                                                                                                            |
|         | <b>UAB - CE/CTE ADMIN.</b>                                                 |                                          |          |             | 1,350                 | 1        | 1,350       |                       | 1,350    | 1                                   | 1,350                 |                                                                                                                                                                            |
|         | Conference Room (Rm. 29C)                                                  | 170                                      | 1        | 170         | 170                   | 1        | 170         |                       |          |                                     |                       |                                                                                                                                                                            |
|         | Nurse and Visual Arts Offices (Rm.23A and Rm.2                             | 120                                      | 2        | 240         | 120                   | 2        | 240         |                       |          |                                     |                       |                                                                                                                                                                            |

BHS EDUCATION PLAN

MA-STATE HIGH SCHOOL STANDARDS

ENROLLMENT ACCOMMODATION

MAY 2017 Issue

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSBA Guidelines

### 3. Space Summary OPTIONS 1, 2 & 3

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSEA Guidelines

**SUMMARY**

**ENROLLMENT ACCOMMODATION**

**MA-STATE HIGH SCHOOL STANDARDS**

**BHS EDUCATION PLAN**

MAY 2017 Issue

| Group                                             | ROOM/TYPE                                                        | BHS CAMPUS Existing Conditions Inventory |          | OPTION 1    |                       | OPTION 2 |             | OPTION 3              |          | MSEA Guidelines for 2700 Enrollment |                       | Comments / Notes |          |                                           |
|---------------------------------------------------|------------------------------------------------------------------|------------------------------------------|----------|-------------|-----------------------|----------|-------------|-----------------------|----------|-------------------------------------|-----------------------|------------------|----------|-------------------------------------------|
|                                                   |                                                                  | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS | area totals                         | ROOM NFA <sup>1</sup> |                  | # OF RMS | area totals                               |
| <b>BROOKLINE HIGH SCHOOL</b>                      |                                                                  |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |          |                                           |
| <b>ADMIN. GUIDANCE</b>                            |                                                                  |                                          |          | 3,990       |                       |          |             |                       |          |                                     |                       |                  |          |                                           |
| <i>(List rooms of different sizes separately)</i> |                                                                  |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |          |                                           |
|                                                   | Main Building - 115 Greenough                                    |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |          |                                           |
| N.50                                              | Conference Room (MSBA Admin & Guid.)                             | 270                                      | 1        | 270         | 270                   | 1        | 270         | 270                   | 1        | 270                                 | 450                   | 1                | 450      |                                           |
| N.60                                              | Guidance Waiting Rm                                              |                                          | 10       |             |                       |          |             |                       |          |                                     | 100                   | 1                | 100      |                                           |
| N.61                                              | Guidance - Office                                                | 140                                      | 1        | 140         | 140                   | 1        | 140         | 140                   | 1        | 140                                 | 150                   | 14               | 2,100    |                                           |
| N.62                                              | PSS Directors Office                                             | 250                                      | 1        | 250         | 250                   | 1        | 250         | 250                   | 1        | 250                                 |                       |                  |          |                                           |
|                                                   | PSS Office                                                       | 130                                      | 2        | 260         | 130                   | 2        | 260         | 130                   | 2        | 260                                 |                       |                  |          |                                           |
|                                                   | Psychologist Office                                              | 210                                      | 1        | 210         | 210                   | 1        | 210         | 210                   | 1        | 210                                 |                       |                  |          |                                           |
|                                                   | Office                                                           | 130                                      | 4        | 520         | 130                   | 4        | 520         | 130                   | 4        | 520                                 |                       |                  |          |                                           |
|                                                   | Office                                                           | 420                                      | 1        | 420         | 420                   | 1        | 420         | 420                   | 1        | 420                                 |                       |                  |          |                                           |
| N.69                                              | NEW Guidance at Dean Teams                                       |                                          |          |             | 150                   | 2        | 300         | 150                   | 2        | 300                                 | 150                   | 4                | 600      |                                           |
| <b>Social and Emotional Support</b>               |                                                                  |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |          |                                           |
| N.70                                              | Substance/Violence Prevention Counsel/Office Interview @ Nursing | Varies                                   | 3        | 380         | 100                   | 4        | 400         | 100                   | 4        | 400                                 | 100                   | 4                | 400      |                                           |
| N.75                                              | Guidance - Internship Office (Rm.160L)                           | 140                                      | 1        | 140         | 140                   | 1        | 140         | 140                   | 1        | 140                                 |                       |                  |          |                                           |
|                                                   | Guidance - Internship Center (160M)                              | 220                                      | 1        | 220         | 220                   | 1        | 220         | 220                   | 1        | 220                                 |                       |                  |          |                                           |
| N.80                                              | Guidance Office (Rm.279)                                         | 620                                      | 1        | 620         | 620                   | 1        | 620         | 620                   | 1        | 620                                 | 900                   | 1                | 900      |                                           |
| N.81                                              | Guidance Office - Small (Rm.280)                                 | 110                                      | 1        | 110         | 110                   | 1        | 110         | 110                   | 1        | 110                                 |                       |                  |          |                                           |
|                                                   | UAB - CE/CTE ADMIN.                                              |                                          |          |             |                       |          |             |                       |          |                                     |                       |                  |          |                                           |
|                                                   | Career Ed (Rm.23)                                                | 350                                      | 1        | 350         | 350                   | 1        | 350         | 350                   | 1        | 350                                 |                       |                  |          |                                           |
| N.80                                              | Guidance Storeroom                                               |                                          |          |             | 100                   | 1        | 100         | 100                   | 1        | 100                                 | 100                   | 1                | 100      |                                           |
| N.81                                              | Guidance Records Storage                                         |                                          |          |             | 400                   | 1        | 400         | 400                   | 1        | 400                                 | 400                   | 1                | 400      |                                           |
|                                                   |                                                                  |                                          |          |             |                       |          |             |                       |          |                                     | 825                   | 1                | 825      | Expand Utiliz. @ .168 = 1                 |
|                                                   |                                                                  |                                          |          |             |                       |          |             |                       |          |                                     | 100                   | 1                | 100      |                                           |
|                                                   |                                                                  |                                          |          |             |                       |          |             |                       |          |                                     | 363                   | 1                | 363      | Central Secure Record Storage OR per TEAM |

### 3. Space Summary OPTIONS 1, 2 & 3

| SUMMARY                                           | BROOKLINE HIGH SCHOOL | MAY 2017 ISSUE        |          |             | ENROLLMENT ACCOMMODATION |          |             | MA-STATE HIGH SCHOOL STANDARDS |                        |             | BHS EDUCATION PLAN    |              |                        | COMMENTS / NOTES |                                                                                           |
|---------------------------------------------------|-----------------------|-----------------------|----------|-------------|--------------------------|----------|-------------|--------------------------------|------------------------|-------------|-----------------------|--------------|------------------------|------------------|-------------------------------------------------------------------------------------------|
|                                                   |                       | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup>    | # OF RMS | area totals | ROOM NFA <sup>1</sup>          | # OF RMS               | area totals | ROOM NFA <sup>1</sup> | # OF RMS     | area totals            |                  |                                                                                           |
| OTHER                                             |                       |                       |          | 4,980       |                          |          | 5,150       |                                |                        | 4,750       |                       |              | 4,790                  | 0 OTHER          |                                                                                           |
| 0.01 Security Office                              |                       |                       |          |             | 200                      | 1        | 200         | use existing                   | 200                    | 1           | 200                   | use existing | 200                    | 1                | at Main Office or Asst. Head                                                              |
| 0.02 After-School                                 |                       |                       |          |             |                          |          |             | use existing                   |                        |             |                       | use existing |                        |                  | confirm needs Office, Storage or Other                                                    |
| 0.03 Summer School / Summer Programs              |                       |                       |          |             |                          |          |             | use existing                   |                        |             |                       | use existing |                        |                  | confirm needs Office, Storage or Other                                                    |
| <b>Main Building - 115 Greenough</b>              |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  |                                                                                           |
| 0.00 Student Newspaper (Rm. 385A)                 |                       |                       | 570      | 1           | 570                      |          | 570         |                                | 570                    | 1           | 570                   |              | 570                    | 1                |                                                                                           |
| 0.10 BEEP (Rm.101)                                |                       |                       | 770      | 1           | 770                      |          | 770         |                                | 770                    | 1           | 770                   |              | 770                    | 1                |                                                                                           |
| 0.11 BEEP Rm.107                                  |                       |                       | 720      | 1           | 720                      |          | 720         |                                | 720                    | 1           | 720                   |              | 720                    | 1                |                                                                                           |
| 0.20 Alumni Center (Rm.165); combine with 0.30    |                       |                       | 460      | 1           | 460                      |          | 460         |                                | 460                    | 1           | 460                   |              | 500                    | 1                | combine w/21st Century Rm; confirm #of occ.;                                              |
| 0.30 21st Century (Rm.168B); combine with 0.20    |                       |                       | 300      | 1           | 300                      |          | 300         |                                | Alumni & 21st combined |             |                       |              | Alumni & 21st combined |                  | combine w/Alum. Center                                                                    |
| 0.50 Graphic Arts / BHS Copy Center               |                       |                       | 960      | 1           | 960                      |          | 960         |                                | 1,000                  | 1           | 1,000                 |              | 1,000                  | 1                | BHS and District Facility locate w/ delivery access; confirm size for equip./print volume |
| 0.60 Adult Ed Classroom (Rm.04)                   |                       |                       | 770      | 1           | 770                      |          | 770         |                                | 770                    | 1           | 770                   |              | 770                    | 1                | Adult Ed. Storage (Rm.03) 400sf not used                                                  |
| 0.61 Adult Ed Office (Rm.109B)                    |                       |                       | 140      | 1           | 140                      |          | 140         |                                |                        |             |                       |              |                        |                  | Adult Ed. Office Not Required; combine with 0.60                                          |
| 0.70 BEU Office (Rm.004A)                         |                       |                       | 260      | 1           | 260                      |          | 260         |                                | 260                    | 1           | 260                   |              | 260                    | 1                | (1) staff and (1) secretary                                                               |
| 0.90 PEER Leadership                              |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  | Expand URI @2.33 =3; uses CR's Z-Block; confirm or provide dedicated space                |
| UAB - 46 Tappan                                   |                       |                       | 4,450    | 1           |                          |          |             |                                |                        |             |                       |              |                        |                  | NOT INCLUDED; existing to remain                                                          |
| BIG - Brookline Interactive Group (N.A)           |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  |                                                                                           |
| <b>CUSTODIAL &amp; MAINTENANCE (BHS/UAB/GYM)</b>  |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  | <b>3,650</b>                                                                              |
| <i>(List rooms of different sizes separately)</i> |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  |                                                                                           |
| Main Building - 115 Greenough                     |                       |                       |          |             | 10,320                   | 1        | 10,320      |                                | 10,320                 | 1           | 10,320                |              | 10,320                 | 1                | Confirm w/ BHS Bldg. Dept.                                                                |
| Custodian's Office (Lounge)                       |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  |                                                                                           |
| Custodian's Workshop                              |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  |                                                                                           |
| Custodian's Storage                               |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  |                                                                                           |
| Recycling Room / Trash                            |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  |                                                                                           |
| Receiving and General Supply                      |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  |                                                                                           |
| Storeroom                                         |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  |                                                                                           |
| Network / Telecom Room                            |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  |                                                                                           |
| UAB                                               |                       |                       |          |             | 530                      | 1        | 530         |                                | 530                    | 1           | 530                   |              | 530                    | 1                | Central Plant MEP NOT INCLUDED                                                            |
| Central Plant not in NSF                          |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  | Confirm w/ BHS Bldg. Dept.                                                                |
| Tappan GYM                                        |                       |                       |          |             | 1,700                    | 1        | 1,700       |                                | 1,700                  | 1           | 1,700                 |              | 1,700                  | 1                | Confirm w/ BHS Bldg. Dept.                                                                |
|                                                   |                       |                       |          |             |                          |          |             |                                |                        |             |                       |              |                        |                  | Kirrane Pool NOT INCLUDED                                                                 |

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSEA Guidelines

### 3. Space Summary OPTIONS 1, 2 & 3

**LEGEND**

- New
- Existing
- Deficient Existing Program Space, see notes
- MSEA Guidelines

**SUMMARY** BHS EDUCATION PLAN

**ENROLLMENT ACCOMMODATION**

**MA-STATE HIGH SCHOOL STANDARDS**

**MAY 2017 ISSUE**

| group                                            | ROOMTYPE                                                 | BHS CAMPUS Existing Conditions Inventory |          |             | OPTION 1  |          |             | OPTION 2  |          |             | OPTION 3  |          |             | MSBA Guidelines for 2700 Enrollment |          |             | Comments / Notes |
|--------------------------------------------------|----------------------------------------------------------|------------------------------------------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-------------------------------------|----------|-------------|------------------|
|                                                  |                                                          | ROOM NFA'                                | # OF RMS | area totals | ROOM NFA' | # OF RMS | area totals | ROOM NFA' | # OF RMS | area totals | ROOM NFA' | # OF RMS | area totals | ROOM NFA'                           | # OF RMS | area totals |                  |
| <b>OTHER / BUILDING SERVICES</b>                 |                                                          |                                          |          |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
|                                                  | Town Medical Nurse Office at UAB                         |                                          |          |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
|                                                  | BHS Lock shop or Other Sch. Dept. Facilities             |                                          |          |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
|                                                  | Sch Dept. Offices (Webster St. Facility)                 |                                          |          |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| <b>OTHER / COMMUNITY - HEALTH &amp; WELLNESS</b> |                                                          |                                          |          |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
|                                                  |                                                          |                                          |          | 14,580      |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| <b>Kirrane Pool - SHARED - BHS &amp; REC.</b>    |                                                          |                                          |          |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| P.10                                             | Natorium                                                 | 11,310                                   | 1        | 11,310      |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
|                                                  | Pool - Storeroom                                         | 70                                       | 1        | 70          |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| P.20                                             | Pool - Locker Rooms - Boys/Girls                         | 1,150                                    | 1        | 1,150       |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
|                                                  | Pool - Locker Rooms - Boys/Girls                         | 1,670                                    | 1        | 1,670       |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
|                                                  | Pool - Phys. Ed. Storage                                 |                                          |          |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| P.30                                             | Pool Office                                              | 120                                      | 3        | 360         |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
|                                                  | Pool Instructor's Office w/ Shower & Toilet              |                                          |          |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| <b>OTHER / COMMUNITY BSSCC DAYCARE</b>           |                                                          |                                          |          |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
|                                                  | (Not included in Net and GSF)                            |                                          |          | 4,550       |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| SD                                               | Staff Daycare at Baldwin School shared w/ Winthrop House |                                          |          |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| SD.10                                            | Pre-K Room - 2nd Flr                                     | 660                                      | 1        | 660         |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| SD.11                                            | Pre-K Room - 2nd Flr                                     | 870                                      | 1        | 870         |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| SD.12                                            | Pre-K Room - 1st Flr                                     | 1,800                                    | 1        | 1,800       |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| SD.13                                            | Multi-purpose Room - Indoor Play - 1st Flr               | 760                                      | 1        | 760         |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| SD.20                                            | Daycare Toilets - 1st Flr                                | 130                                      | 1        | 130         |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| SD.21                                            | Daycare Staff Room - 1st Flr                             | 180                                      | 1        | 180         |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| SD.30                                            | Daycare Admin Office                                     | 150                                      | 1        | 150         |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |
| SD.40                                            | Outdoor Playground                                       | confirm                                  | 1        |             |           |          |             |           |          |             |           |          |             |                                     |          |             |                  |

### 3. Space Summary OPTIONS 1, 2 & 3

| SUMMARY                                                    | BROOKLINE HIGH SCHOOL                   | ENROLLMENT ACCOMMODATION                 |          | MA-STATE HIGH SCHOOL STANDARDS |                       | BHS EDUCATION PLAN |             | Comments / Notes                    |                       |                                                                                                    |
|------------------------------------------------------------|-----------------------------------------|------------------------------------------|----------|--------------------------------|-----------------------|--------------------|-------------|-------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------|
|                                                            |                                         | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals                    | ROOM NFA <sup>1</sup> | # OF RMS           | area totals |                                     | ROOM NFA <sup>1</sup> | # OF RMS                                                                                           |
| group                                                      | ROOM TYPE                               | BHS CAMPUS Existing Conditions Inventory |          |                                |                       |                    |             | MSBA Guidelines for 2700 Enrollment |                       |                                                                                                    |
|                                                            |                                         | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals                    | ROOM NFA <sup>1</sup> | # OF RMS           | area totals | ROOM NFA <sup>1</sup>               | # OF RMS              | area totals                                                                                        |
| <b>OUTDOOR PROGRAM / ACADEMIC &amp; COMMUNITY</b>          |                                         |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
| <i>(List activities and/or different sizes separately)</i> |                                         |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Main Greenough Building - Courtyard     |                                          |          |                                |                       |                    |             |                                     |                       | OUTDOOR PROGRAM                                                                                    |
|                                                            | Informal Gathering / Seating            |                                          |          |                                |                       |                    |             |                                     |                       | Not part of Building Net Sq. Ft. (NSF)                                                             |
|                                                            | Student Activities                      |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Events                                  |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Cypress Playground / Field              |                                          |          | 234,403                        |                       |                    |             |                                     |                       | ATHLETIC FIELDS & RECREATION<br>Coordinate BHS Athletics Fitness and Parks Open Space & Recreation |
|                                                            | Natural-Lawn Area                       |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Seating / Community Picnic              |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Flagpole / Memorial Plaque              |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Bicycle Parking                         |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Turf Field / Lighting and Fencing       |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Softball and Soccer                     |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | maybe Football-Practice, no posts       |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Bleachers                               |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Basketball Court                        |                                          |          |                                |                       |                    |             |                                     |                       | (1) min and (2) preferred                                                                          |
|                                                            | OTHER                                   |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | TBD: Concessions/Restroom Facilities    |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | TBD: Fitness Loop Markings at Sidewalks |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | TBD: Outdoor Assembly and Stage         |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Cypress Playground                      |                                          |          |                                |                       |                    |             |                                     |                       | PLAYGROUND                                                                                         |
|                                                            | Playground(s): 6months - 2 yrs          |                                          |          |                                |                       |                    |             |                                     |                       | Confirm and coordinate with BHS                                                                    |
|                                                            | Playground(s): 2 yrs - 5 yrs            |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Playground(s): 5 yrs - 12 yrs           |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | Spray & Splash                          |                                          |          |                                |                       |                    |             |                                     |                       |                                                                                                    |
|                                                            | TBD: Underground Parking Structure      |                                          |          |                                |                       |                    |             |                                     |                       | PARKING                                                                                            |
|                                                            | Parking 1 to 3 levels w/headhouse(s)    |                                          |          |                                |                       |                    |             |                                     |                       | 49,000 footprint Parking w/ Ramp                                                                   |
|                                                            | Stairs/Elevator/Paystations             |                                          |          |                                |                       |                    |             |                                     |                       | BHS YR2017 368 permits, confirm REC                                                                |
|                                                            |                                         | 50,000                                   | 1        | 50,000                         | 50,000                | 2                  | 100,000     | 50,000                              | 3                     | 150,000                                                                                            |
|                                                            |                                         | GSF                                      |          |                                | GSF                   |                    |             | GSF                                 |                       |                                                                                                    |



### 3. Space Summary - OPTIONS 1, 2 & 3 - Graphic Comparison

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|                            | Guiding Statement                                                                                                                                                                                                                                                                                     | Classrooms                                                                                                                                                                                                                                                                                                    | Science ClassLabs                                                                                                                                                                              | Common Shared Collaborative Learning                                                                                                                                                                                                                                                                                                         | Teacher Planning                                | Special Education                                                                                                                                                                                 | Visual Arts & Music/ Dance                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENROLLMENT ACCOMMODATION   | <p><b>Accommodation of Additional Enrollment</b></p> <p>BHS currently accommodates 2,000 students satisfactorily. Therefore, take only those measures required to accommodate the growth to 2,700 plus improvements to the Science Department facilities.</p>                                         | <p>Increase of (22) classrooms = (79) total</p> <p>(10) New Classrooms</p> <p>Renovate as Classrooms (12) Science Labs under 1,000 nsf</p>                                                                                                                                                                    | <p>Increase of (1) Science ClassLabs = (24) total</p> <p>(18) New or Fully Renovated Science ClassLabs @ 1,250 nsf each</p> <p>Re-use Existing (7) Science Prep and Chemical Storage Rooms</p> | <p>(1) Existing Test Collaborative Space to remain @ 1,410 nsf</p> <p>Renovate Re-use Language Humanities Computer Labs @ 5,750 nsf</p>                                                                                                                                                                                                      | <p>Reno-Expand New Teacher Planning Room(s)</p> | <p>Renovate Re-use Self-Contained Classrooms</p> <p>New PT and OT Rooms</p>                                                                                                                       | <p>DANCE: Renovate Re-use Existing Dance at Tappan Gym</p> <p>MUSIC: Renovate Re-use Existing Band and Chorus Rooms</p> <p>VISUAL ARTS: (1) New Drawing Studio 1,200 nsf; (1) Renovate/New 2,000 nsf Sculpture Studio; Renovate or New Exhibit Gallery Display space</p>                                                                                                                                            |
|                            | <p>CODE COMPLIANCE</p> <p>Renovations as required for full code compliance</p>                                                                                                                                                                                                                        | <p>Use All existing (57) Classrooms; (37) classrooms &gt; 700 nsf; and (20) &lt; 700 nsf undersized</p>                                                                                                                                                                                                       | <p>(6 of 23) Existing Science ClassLabs Renovate / Re-use &gt; than 1,000 nsf</p>                                                                                                              | <p>No new Small Group/ Seminar Rooms Project Areas, except included at Library/ Media Center</p>                                                                                                                                                                                                                                             | <p>Renovate Re-use Teachers Offices</p>         | <p>Re-use and Renovate Language Therapy, Learning Centers, Transitions, Pathways, EXCEL, and S.E.Admin. Space</p>                                                                                 | <p>VISUAL ARTS: Renovate Re-use the United Arts Building - UAB</p>                                                                                                                                                                                                                                                                                                                                                  |
|                            |                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                              |                                                 |                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| MASSACHUSETTS HS STANDARDS | <p><b>Conformance with Current Educational Standards</b></p> <p>The BHS expansion would be planned to generally conform to the standards currently used for other Massachusetts High Schools. Most other communities partner with the MSBA for funding, and are largely based on MSBA guidelines.</p> | <p>Increase of (22) classrooms = (79) total</p> <p>(26) New Classrooms</p> <p>New (2) Multi-Use Classrooms; in addition to (79) Core Academic Classrooms</p> <p>New (4) Paired Flexible-Classrooms; provides (2) Large Classrooms</p> <p>Renovate as Classrooms (12) Science Labs under 1,000 nsf</p>         | <p>Increase of (1) Science ClassLabs = (24) total</p> <p>(24) New or Fully Renovated Science ClassLabs @ 1,250 nsf each</p> <p>(24) New Science Prep Rooms</p>                                 | <p>New (2) Maker Spaces 2,000 nsf each for a total @ 4,000 nsf</p> <p>(6) total various sized Collaborative Learning Commons @ 6,000 nsf</p> <p>Renovate Repurpose existing space @ +/-4,000 nsf as Collaborative Teacher Spaces near Classrooms and Small Group Rooms</p> <p>Renovate Re-use Language Computer Labs @ 5,750 nsf</p>         | <p>Reno-Expand New Teacher Planning Room(s)</p> | <p>(4) New Resource Rooms</p> <p>New Life Skills Apartment and Kitchen/ Laundry Facility</p> <p>(2) New Small Group Rooms</p> <p>(4) New Self-Contained Classrooms</p> <p>New PT and OT Rooms</p> | <p>DANCE: (1) New Dance Studio @ 3,000 nsf</p> <p>DANCE: Renovate Re-use (1) Existing Dance at Tappan Gym</p> <p>MUSIC: (1) New Music Chorus Studio @ 1,500 nsf</p> <p>MUSIC: (8) Practice Rms, (1) New Ensemble Rm and Music Storage</p> <p>VISUAL ARTS: (1) New Drawing Studio 1,200 nsf; (1) Renovate/ New 2,000 nsf Sculpture Studio; Renovate or New Exhibit Gallery Display space</p>                         |
|                            | <p>CODE COMPLIANCE</p> <p>Renovations as required for full code compliance</p>                                                                                                                                                                                                                        | <p>Renov/Re-use (37 of 57) Existing Classrooms &gt; 700 nsf. Renovate / Repurpose (20) Classrooms as Small Group Project Rooms</p>                                                                                                                                                                            | <p>(0 of 23) Existing Science ClassLabs Not Used for Science; Renovate/ Repurpose as Classrooms</p>                                                                                            | <p>12,000 nsf of Renovated Classrooms &lt; 700 nsf used for Small Group/ Seminar Rooms Project Areas</p>                                                                                                                                                                                                                                     | <p>Renovate Re-use Teachers Offices</p>         | <p>Renovate/Re-use Language Therapy, Learning Centers, Transitions, Pathways, EXCEL, and S.E.Admin.</p>                                                                                           | <p>VISUAL ARTS: Renovate Re-use the United Arts Building - UAB</p>                                                                                                                                                                                                                                                                                                                                                  |
|                            |                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                              |                                                 |                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                     |
| BHS EDUCATION PLAN         | <p><b>Conformance with Brookline High School Education Plan</b></p> <p>The BHS expansion would be planned to accommodate the goals set forth by the BHS community during the visioning sessions from the past 2 years and as set out in the Education Plan.</p>                                       | <p>Increase of (22) classrooms = (79) total</p> <p>(28) New Classrooms</p> <p>New (2) Multi-Use Classrooms; in addition to (79) Core Academic Classrooms</p> <p>New (8) Paired Flexible-Classrooms; provides (4) Large Classrooms</p> <p>Renovate/ Re-use (12) Science Labs under 1,000 nsf as Classrooms</p> | <p>Increase of (1) Science ClassLabs = (24) total</p> <p>(24) New or Fully Renovated Science ClassLabs @ 1,250 nsf each</p> <p>(24) New Science Prep Rooms</p>                                 | <p>New Large-Group Collaborative Flexible Space @ 6,000 nsf</p> <p>(12) total various sized Collaborative Learning Commons @ 12,000 nsf</p> <p>New (4) Maker Spaces 2,000 nsf each for a total @ 8,000 nsf</p> <p>Renovate Repurpose existing space @ +/-4,000 nsf as Collaborative Teacher Spaces near Classrooms and Small Group Rooms</p> | <p>Reno-Expand New Teacher Planning Room(s)</p> | <p>(8) New Resource Rooms</p> <p>New Life Skills Apartment and Kitchen/ Laundry Facility</p> <p>(4) New Small Group Rooms</p> <p>(4) New Self-Contained Classrooms</p> <p>New PT and OT Rooms</p> | <p>DANCE: (2) New Dance Studios @ 3,000 nsf each</p> <p>MUSIC: (1) New Music Chorus Studio @ 1,500 nsf</p> <p>MUSIC: (1) New Music Classroom-Studio @ 1,500 nsf for Orchestra / Digital</p> <p>MUSIC: (12) Practice Rms, (1) New Ensemble Rm and Music Storage</p> <p>VISUAL ARTS: (1) New Drawing Studio 1,200 nsf; (1) Renovate/New 2,000 nsf Sculpture Studio; Renovate or New Exhibit Gallery Display space</p> |
|                            | <p>CODE COMPLIANCE</p> <p>Renovations as required for full code compliance</p>                                                                                                                                                                                                                        | <p>Renovate/Re-use (37 of 57) Existing Classrooms &gt; 700 nsf. Renovate/ Repurpose (20) Classrooms as Small Group Project Rooms</p>                                                                                                                                                                          | <p>(0 of 23) Existing Science ClassLabs Not Used for Science; Renovate/ Repurpose as Classrooms</p>                                                                                            | <p>Renovate Re-use Language Humanities Computer Labs @ 5,750 nsf</p>                                                                                                                                                                                                                                                                         | <p>Renovate Re-use Teachers Offices</p>         | <p>Renovate/Re-use Language Therapy, Learning Centers, Transitions, Pathways, EXCEL, and S.E.Admin. Space</p>                                                                                     | <p>VISUAL ARTS: Renovate Re-use the United Arts Building - UAB</p>                                                                                                                                                                                                                                                                                                                                                  |
|                            |                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                              |                                                 |                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                     |

LEGEND

EXISTING

NEW

### 3. Space Summary - OPTIONS 1, 2 & 3 - Graphic Comparison

15 FEB 2017 - DRAFT Issue

|                          | Guiding Statement                                                                                                                                                                                                                                                                                                                         | Career Education & Technology                                                                                                                                                                                                                                                                                                                                                     | Health / Fitness & Physical Education                                                                                                                                                                                                                                                                                                                               | Auditorium / Drama                                                                                                                                                                                                                                                                                                                       | Library / Media Center Dining & Food Service                                                                                                                                                                                                                                      | Administration, Guidance & Nurse                                                                                                                                                                                                                                                                                                                                                                          | Additional / Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENROLLMENT ACCOMMODATION | <p><b>Accommodation of Additional Enrollment</b></p> <p>BHS currently accommodates 2,000 students satisfactorily. Therefore, take only those measures required to accommodate the growth to 2,700 plus improvements to the Science Department facilities.</p> <p>CODE COMPLIANCE<br/>Renovations as required for full code compliance</p> | <p>New Early Education Observation Lab @ 1,400 nsf</p> <p>Expand Culinary Arts 1,000 nsf Kitchen only</p> <p>(1) Renovate 1,200 nsf UAB 1/2-of-RM.13 for Engineering By Design</p> <p>Renovate Re-use the United Arts Building - UAB for Career Ed. Technology, Culinary Arts, Business, Food Prep</p>                                                                            | <p>New PE Athletic Offices at Tappan</p> <p>New PE Practice Court @ 6,000 nsf</p> <p>Renovate Re-use of Schluntz Gym for New Academic Expansion</p> <p>Renovate Re-use Tappan Gym 1, Gym 2, and Pavilion</p> <p>Renovate Tappan Gym for Health Fitness/Wellness, PE &amp; Recreation</p>                                                                            | <p>Renovate Re-use all Performing Arts Space; Auditorium, Stage, White Box, Black Box Theater, Scenery Workshop and Dance</p>                                                                                                                                                                                                            | <p>Expansion to Library/ Media Center @ +7,000 nsf; include new Study Rooms, Project Areas, Book Stack Reading spaces</p> <p>LIBRARY: Re-use and Renovate Library Media Center</p> <p>Expand Cafeteria by +2,600 nsf</p> <p>DINING: Re-use, Renovate, and Servery and Kitchen</p> | <p>(2) New Guidance Offices and (4) Social Emotional Offices</p> <p>GUIDANCE: Re-use and Renovate Guidance Offices</p> <p>ADMIN: Re-use Renovate Main Office</p> <p>(5) New Medical/ Nurse Exam/ Resting Rooms</p> <p>NURSE: Re-use and Renovate Medical Suite Nurse Offices</p>                                                                                                                          | <p>WINTHROP HOUSE location to be determined</p> <p>BSSCC DAYCARE location to be determined</p> <p>Coordinate w/ Off-Site Athletic Facilities</p> <p>KIRRANE POOL to remain; not included in space program</p>                                                                                                                                                                                                                                                                  |
|                          | MASSACHUSETTS HS STANDARDS                                                                                                                                                                                                                                                                                                                | <p><b>Conformance with Current Educational Standards</b></p> <p>The BHS expansion would be planned to generally conform to the standards currently used for other Massachusetts High Schools. Most other communities partner with the MSBA for funding, and are largely based on MSBA guidelines.</p> <p>CODE COMPLIANCE<br/>Renovations as required for full code compliance</p> | <p>New Early Education Observation Lab @ 1,400 nsf</p> <p>New Business/Tech Computer Classroom @ 1,200 nsf</p> <p>New Large Culinary Arts Kitchen only @ 2,000 nsf</p> <p>(1) Renovate 1,200 nsf UAB 1/2-of-RM.13 for Engineering By Design</p> <p>Renovate Re-use the United Arts Building - UAB for Career Ed. Technology, Culinary Arts, Business, Food Prep</p> | <p>New PE Athletic Offices at Tappan</p> <p>New PE Practice Court @ 6,000 nsf</p> <p>Use the area of the Schluntz Gym; for New Academic Expansion</p> <p>Renovate Tappan Gym 1 &amp; Gym 2 into Competition Basketball Court</p> <p>Renovate Tappan Gym for Health Fitness/Wellness, PE &amp; Recreation</p>                             | <p>New Black Box Theater @ 3,000 nsf</p> <p>Renovate and use Black Box for White Box @ 1,860 nsf</p> <p>Renovate Re-use Auditorium and Stage, Scenery Workshop</p>                                                                                                                | <p>New Library/ Media Center @ 16,800 nsf ; include new Study Rooms, Project Areas, Book Stack Reading spaces</p> <p>LIBRARY: Repurpose Library space as Classrooms, Project Areas, Administration, Guidance, Other</p> <p>Expand Cafeteria by +2,600 nsf</p> <p>DINING: Re-use and Renovate the Servery and Kitchen</p>                                                                                  | <p>GUIDANCE: New Guidance Offices, Social Emotional Offices and Career Office</p> <p>ADMIN: New area for Teachers Work Room(s) @ 1,350 nsf</p> <p>ADMIN: (4) Each New Dean's and Associate Dean's Offices @ Deans' Teams; and (4) New Guidance Offices</p> <p>ADMIN: Re-use Renovate Main Office</p> <p>NURSE: New Medical / Nurse Suite; and expand with (6) Exam Resting Rooms, (4) Interview Rooms</p>                                                                      |
| BHS EDUCATION PLAN       |                                                                                                                                                                                                                                                                                                                                           | <p><b>Conformance with Brookline High School Education Plan</b></p> <p>The BHS expansion would be planned to accommodate the goals set forth by the BHS community during the visioning sessions from the past 2 years and as set out in the Education Plan.</p> <p>CODE COMPLIANCE<br/>Renovations as required for full code compliance</p>                                       | <p>New Early Education Observation Lab @ 1,400 nsf</p> <p>New Business/Tech Computer Classroom @ 1,200 nsf</p> <p>New Large Culinary Arts Kitchen only @ 2,000 nsf</p> <p>(1) Renovate 1,200 nsf UAB-RM.13 for Engineering By Design</p> <p>Renovate Re-use the United Arts Building - UAB for Career Ed. Technology, Culinary Arts, Business, Food Prep</p>        | <p>New PE Athletic Offices at Tappan</p> <p>New 25,000 nsf Fieldhouse; 200-meter track, 4-Volleyball Courts, Batting Cage, Badminton, Tennis</p> <p>New PE Practice Court @ 6,000 nsf</p> <p>Use the area of the Schluntz Gym; for New Academic Expansion</p> <p>Renovate Tappan Gym 1 &amp; Gym 2 into Competition Basketball Court</p> | <p>New 400-seat Theater, Stage and with support spaces @ 7,700 nsf</p> <p>New Scenery Workshop @ 2,000 nsf</p> <p>New White Box @ 2,000 nsf</p> <p>New Black Box Theater @ 3,000 nsf</p> <p>Renovate Re-use Auditorium and Stage, Scenery Workshop</p>                            | <p>New Library/ Media Center @ 16,800 nsf ; include new Study Rooms, Project Areas, Book Stack Reading spaces</p> <p>LIBRARY: Repurpose Library space as Classrooms, Project Areas, Administration, Guidance, Other</p> <p>Expand and New Cafeteria, Servery and Kitchen @ +13,500 nsf</p> <p>DINING: Repurpose portions of the Cafeteria, Servery and Kitchen, in coordination with planning options</p> | <p>GUIDANCE: New Guidance Offices, Social Emotional Offices and Career Office</p> <p>ADMIN: New area for Teachers Work Room(s) @ 1,350 nsf</p> <p>ADMIN: (4) Each New Dean's and Associate Dean's Offices @ Deans' Teams; and (4) New Guidance Offices, plus</p> <p>ADMIN: Re-use Renovate Main Office</p> <p>NURSE: New Medical / Nurse Suite; and expand with (9) Exam Resting Rooms, (4) Interview Rooms, and (1) New Satellite Nurse Office at the Tappan Gym Facility</p> |

LEGEND

EXISTING

NEW

## 3. Space Summary

### Space Summary - Option 4

**Stand-alone Off-site  
9th Grade Academic Building  
and  
BHS-Greenough, Tappan Gym  
and United Arts Building (UAB)**

### 3. Education Program

#### Space Summary OPTION 4

During the Feasibility Study phase, as HMFH Architects provided a variety and range of program planning and massing options, and their relative costs, for the expansion on the main BHS campus, the Town of Brookline requested and expanded the area of study to include a stand-alone off-site.

The concept of a free-standing 9th Grade academic building emerged as an approach to accommodating the BHS school expansion.

The following Education Program Space Summary quantifies the two separate programs the 9th Grade Academy Program, and the BHS 10th, 11th, 12th Grade Program.

The 9th Grade Space Program includes the necessary academic, administrative, and community spaces, including Dining/ Kitchen, Art, Music, and the Library, necessary to support the 9th Grade enrollment.

9th Grade students will utilize program spaces at the BHS Main Campus such as: Tappan Gym for Athletics, to the Unified Arts Building for Visual Arts and Consumer Education classes, and to the Main Greenough Building for performance and advanced classes.

Some students in upper grades may participate in mentoring activities or multi-grade level classes in the 9th Grade Academy building.

A select number of new program spaces are required at the BHS Main Greenough Building such as; New Science Class-Labs, Maker Spaces, Collaborative Learning Commons Areas, and Flexible Classrooms.

Further review and prioritization of program spaces to be accommodated as new and/or renovations at the existing BHS Main Greenough Building and the Tappan Gym is recommended during the next Schematic Design phase.

### 3. Space Summary OPTION 4 Stand-alone Off-site 9th Grade Academic Building and BHS-Greenough for 10th, 11th 12th Grades

| SUMMARY                      |                                                         | MAY 2017 Issue                              |          |             |             | OPTION 4<br>Stand-alone Off-Site<br>New 9th Grade Academy |         | OPTION 4A & 4C<br>BHS - Greenough |        | OPTION 4B & 4D<br>BHS-Greenough |               |                          |          |
|------------------------------|---------------------------------------------------------|---------------------------------------------|----------|-------------|-------------|-----------------------------------------------------------|---------|-----------------------------------|--------|---------------------------------|---------------|--------------------------|----------|
|                              |                                                         | ROOM<br>NFA <sup>1</sup>                    | # OF RMS | area totals | area totals |                                                           |         |                                   |        |                                 |               | ROOM<br>NFA <sup>1</sup> | # OF RMS |
| <b>BROOKLINE HIGH SCHOOL</b> |                                                         | BHS CAMPUS<br>Existing Conditions Inventory |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
| group                        | ROOM TYPE                                               | ROOM<br>NFA <sup>1</sup>                    | # OF RMS | area totals |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | <b>CORE ACADEMIC - CLASSROOMS</b>                       |                                             |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | Classrooms / Tutorials/ Study Hall                      |                                             | 69       | 49,590      |             | 25                                                        | 22,500  |                                   |        |                                 | 70            | 54,730                   |          |
|                              | <b>CORE ACADEMIC - SCIENCE CLASS-LABS</b>               |                                             |          |             |             | 6                                                         | 8,900   |                                   | 70     | 51,410                          |               |                          |          |
|                              | Science / Laboratories - Class-Labs                     |                                             | 23       | 22,290      |             |                                                           |         | RENO                              | 18     | 22,290                          | NEW           | 18                       | 26,300   |
|                              | <b>COMMON SHARED Collaborative Learning</b>             |                                             |          |             |             |                                                           | 4,200   |                                   |        | 5,490                           | Exist'g & New | 11,950                   |          |
|                              | Small Group Seminar/ Maker Space/ Project Areas         |                                             |          | 5,490       |             |                                                           | 2,100   |                                   |        |                                 |               |                          |          |
|                              | <b>CORE ACADEMIC - TEACHER PLANNING</b>                 |                                             |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | Teacher - Departments/Teams                             |                                             |          | 7,080       |             |                                                           | 6,810   |                                   |        | 7,080                           | Exist'g & New | 8,280                    |          |
|                              | <b>SPECIAL EDUCATION</b>                                |                                             |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | Special Ed/ Tutorial/ Learning Centers/ OT PT           |                                             |          | 13,610      |             |                                                           |         |                                   |        | 13,610                          |               | 13,610                   |          |
|                              | <b>ART &amp; MUSIC / DANCE</b>                          |                                             |          |             |             |                                                           | 3,600   |                                   |        |                                 |               |                          |          |
|                              | Visual Arts & Perform Music / Dance                     |                                             |          | 17,720      |             |                                                           |         | and at UAB & BHS                  |        | 17,720                          |               | 17,720                   |          |
|                              | <b>CAREER ED. / VOCATION &amp; TECHNOLOGY</b>           |                                             |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | at UAB & BHS                                            |                                             |          | 18,430      |             |                                                           | 0       | at UAB & BHS                      |        |                                 |               |                          |          |
|                              | <b>HEALTH/FITNESS &amp; PHYSICAL EDUCATION / REC. *</b> |                                             |          |             |             |                                                           | 1,700   | and at Teppan & BHS               |        | 18,430                          | Exist'g & New | 19,990                   |          |
|                              | at BHS & TAPPAN GYM (Pool SF not included)              |                                             |          | 82,840      |             |                                                           |         |                                   |        | 82,840                          |               | 82,840                   |          |
|                              | <b>AUDITORIUM / DRAMA PERFORMANCE</b>                   |                                             |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | Auditorium/ Black & White Box/ Drama                    |                                             |          | 16,450      |             |                                                           | 6,750   |                                   |        | 16,450                          |               | 16,450                   |          |
|                              | <b>DINING &amp; FOOD SERVICE</b>                        |                                             |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | Cafeteria/ Kitchen/ Staff Lounge                        |                                             |          | 17,355      |             |                                                           |         |                                   |        | 17,355                          |               | 17,355                   |          |
|                              | <b>LIBRARY / MEDIA CENTER</b>                           |                                             |          |             |             |                                                           | 4,200   |                                   |        | 9,070                           |               | 9,070                    |          |
|                              | Library / Media Center / Learning Commons               |                                             |          | 9,070       |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | <b>MEDICAL</b>                                          |                                             |          |             |             |                                                           | 710     |                                   |        |                                 |               |                          |          |
|                              | Nurses Offices                                          |                                             |          | 1,130       |             |                                                           |         |                                   |        | 1,130                           |               | 1,130                    |          |
|                              | <b>ADMINISTRATION</b>                                   |                                             |          |             |             |                                                           | 2,020   |                                   |        |                                 |               |                          |          |
|                              |                                                         |                                             |          | 6,580       |             |                                                           |         |                                   |        | 6,580                           |               | 6,580                    |          |
|                              | <b>ADMIN. GUIDANCE</b>                                  |                                             |          |             |             |                                                           | 1,370   |                                   |        |                                 |               |                          |          |
|                              |                                                         |                                             |          | 3,990       |             |                                                           |         |                                   |        | 3,990                           |               | 3,990                    |          |
|                              | <b>OTHER</b>                                            |                                             |          |             |             |                                                           | 0       | at BHS                            |        |                                 |               |                          |          |
|                              |                                                         |                                             |          | 4,950       |             |                                                           |         |                                   |        | 5,010                           |               | 5,010                    |          |
|                              | <b>CUSTODIAL &amp; MAINTENANCE</b>                      |                                             |          |             |             |                                                           | 2,300   |                                   |        |                                 |               |                          |          |
|                              |                                                         |                                             |          | 12,550      |             |                                                           |         |                                   |        | 12,550                          |               | 12,550                   |          |
|                              | <b>PROJECT SUB-TOTAL NET SF</b>                         |                                             |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              |                                                         |                                             |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | <b>BHS CAMPUS Net = NSF</b>                             |                                             | NSF      | 289,125     |             |                                                           | 67,160  |                                   | 1,880  | 291,005                         | 18,430        | 307,555                  |          |
|                              | includes nsf BHS@ UAB @ GYM                             |                                             |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | <b>Building Gross Floor Area (GSF)</b>                  |                                             | GSF      | 472,400     |             |                                                           | 107,790 |                                   | 7,500  | 479,900                         | 50,400        | 522,800                  |          |
|                              | includes BHS@ 1.66+ UAB@ 1.8+ GYM@ 1.3                  |                                             |          |             |             |                                                           |         |                                   |        |                                 |               |                          |          |
|                              | Grossing factor (GSF/NSF)                               |                                             | varies   | average     | 1.63        |                                                           | 1.64    |                                   | varies | average                         | varies        | average                  |          |
|                              |                                                         |                                             |          |             |             |                                                           |         |                                   |        |                                 |               | 1.70                     |          |

### 3. Space Summary - OPTION 4 Stand-alone 9th Grade Academic Building

| SUMMARY                                         |                                               | MAY 2017 Issue        |          | OPTION 4 Stand-alone Off-Site |                       | OPTION 4A & 4C BHS - Greenough |             | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes |
|-------------------------------------------------|-----------------------------------------------|-----------------------|----------|-------------------------------|-----------------------|--------------------------------|-------------|------------------------------|----------|------------------|
| group                                           | ROOM TYPE                                     | ROOM NFA <sup>1</sup> | # OF RMS | area totals                   | ROOM NFA <sup>1</sup> | # OF RMS                       | area totals | ROOM NFA <sup>1</sup>        | # OF RMS |                  |
| <b>BROOKLINE HIGH SCHOOL</b>                    |                                               |                       |          |                               |                       |                                |             |                              |          |                  |
| <b>CORE ACADEMIC CLASSROOMS</b>                 |                                               |                       |          |                               |                       |                                |             |                              |          |                  |
| A.9G                                            | NEW 9th Grade Academy @ 111 CYPRESS           |                       |          |                               |                       |                                |             |                              |          |                  |
| A.9G                                            | NEW Expansion Classrooms - 900                |                       |          | 22,500                        |                       |                                | 51,410      |                              |          | 54,730           |
| A.20                                            | NEW Flexible Classroom w/dividing wall        |                       |          | 15,300                        |                       |                                | 4,500       |                              |          |                  |
|                                                 | NEW Tutorial                                  |                       |          | 3,600                         |                       |                                |             |                              |          |                  |
| A.50                                            | Study Hall Classroom (at 9th Grade Academy)   | 600                   | 3        | 1,800                         | 600                   | 1                              | 600         | 600                          | 1        | 600              |
| ELL                                             |                                               |                       |          | 1,008                         |                       |                                | 990         |                              |          | 990              |
| ELL-10                                          | ELL - SEI Classroom (BHS Rm.244)              | 520                   | 1        | 900                           | 520                   | 1                              | 520         | 520                          | 1        | 520              |
|                                                 | ELL - SEI Classroom (BHS Rm.239)              | 470                   | 1        |                               | 470                   | 1                              | 470         | 470                          | 1        | 470              |
| <b>CORE ACADEMIC / SCIENCE CLASS-LABS</b>       |                                               |                       |          |                               |                       |                                |             |                              |          |                  |
| S.9G                                            | 9th Grade Academy @ 111 CYPRESS               |                       |          | 8,900                         |                       |                                | 9th+BHS     |                              |          | 9th+BHS          |
| S.9G                                            | NEW Science / Classlab - Large                |                       |          | 7,500                         |                       |                                |             |                              |          |                  |
| S.60                                            | Science Prep Room                             |                       |          | 1,200                         |                       |                                |             |                              |          |                  |
| S.62                                            | Central Chemical Storage (Rm.372)             |                       |          | 200                           |                       |                                |             |                              |          |                  |
| <b>COMMON SHARED - COLLAB &amp; SMALL GROUP</b> |                                               |                       |          |                               |                       |                                |             |                              |          |                  |
| CS9                                             | 9th Grade Academy @ 111 CYPRESS               |                       |          | 4,200                         |                       |                                | 5,490       |                              |          | 11,950           |
| CS9.50                                          | NEW Small Group Seminar Conference. Rms       |                       |          | 300                           |                       |                                |             |                              |          |                  |
| CS9.20                                          | NEW Maker Space                               |                       |          | 1,000                         |                       |                                |             |                              |          |                  |
| CS9.30                                          | Collab. Learning Commons - Large              |                       |          | 800                           |                       |                                |             |                              |          |                  |
| CS9.31                                          | Collab. Learning Commons - Medium             |                       |          | 600                           |                       |                                |             |                              |          |                  |
| CS9.32                                          | Collab. Learning Commons - Small (or Conf.Rm) |                       |          | 500                           |                       |                                |             |                              |          |                  |
| <b>TEACHER PLANNING - Departments / Teams</b>   |                                               |                       |          |                               |                       |                                |             |                              |          |                  |
| T9G                                             | NEW 9th Grade Academy @ 111 CYPRESS           |                       |          | 2,100                         |                       |                                |             |                              |          |                  |
| T9G.10                                          | NEW Teacher Planning                          |                       |          | 1,500                         |                       |                                |             |                              |          |                  |
|                                                 |                                               |                       |          | 600                           |                       |                                |             |                              |          |                  |
| <b>TOTAL CORE ACADEMIC SPACES</b>               |                                               |                       |          |                               |                       |                                |             |                              |          |                  |
| <b>TOTAL COLLAB &amp; SMALL GROUP</b>           |                                               |                       |          |                               |                       |                                |             |                              |          |                  |
| <b>TOTAL TEACHER PLANNING</b>                   |                                               |                       |          |                               |                       |                                |             |                              |          |                  |

**LEGEND**  
 9th Grd. Acad at BHS  
 Option 4 Existing  
 Option 4 New

### 3. Space Summary - OPTION 4 Stand-alone 9th Grade Academic Building

**LEGEND**

9th Grd Acad at BHS  Option 4  Existing  New

**SUMMARY**

MAY 2017 Issue

| Group                                                | ROOM/TYPE                                             | BHS CAMPUS Existing Conditions Inventory |          | OPTION 4 Stand-alone Off-Site |                       | OPTION 4A & 4C BHS - Greenough |                          | OPTION 4B & 4D BHS - Greenough |          | Comments / Notes                                                                                          |
|------------------------------------------------------|-------------------------------------------------------|------------------------------------------|----------|-------------------------------|-----------------------|--------------------------------|--------------------------|--------------------------------|----------|-----------------------------------------------------------------------------------------------------------|
|                                                      |                                                       | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals                   | ROOM NFA <sup>1</sup> | # OF RMS                       | area totals              | ROOM NFA <sup>1</sup>          | # OF RMS |                                                                                                           |
| <b>BROOKLINE HIGH SCHOOL</b>                         |                                                       |                                          |          |                               |                       |                                |                          |                                |          |                                                                                                           |
| <b>SPECIAL EDUCATION</b>                             |                                                       |                                          |          |                               |                       |                                |                          |                                |          |                                                                                                           |
| E9G                                                  | 9th Grade Academy @ 111 CYPRESS                       |                                          |          |                               |                       |                                |                          |                                |          |                                                                                                           |
| E9G.10                                               | NEW SPECIAL ED Classroom - Self-Contained (RISE, CBC) |                                          |          | 900                           | 1                     | 900                            |                          |                                |          |                                                                                                           |
| E9G.20                                               | NEW Self-Contain SPECIAL ED Toilet at E.10            |                                          |          | 60                            | 1                     | 60                             |                          |                                |          |                                                                                                           |
| E9G.30                                               | NEW Special Ed. Resource Room (Therapy)               |                                          |          | 450                           | 1                     | 450                            |                          |                                |          |                                                                                                           |
| E9G.80                                               | NEW Special Ed. Small Group Room (Learning Centers)   |                                          |          | 600                           | 4                     | 2,400                          |                          |                                |          |                                                                                                           |
| E9G.40                                               | NEW - PT / OT                                         |                                          |          | 750                           | 1                     | 750                            |                          |                                |          |                                                                                                           |
| E9G.90                                               | New Special Ed. - Admin Office & Conference Rm        |                                          |          | 300                           | 1                     | 300                            |                          |                                |          |                                                                                                           |
| <b>EXCEL</b>                                         |                                                       |                                          |          |                               |                       | <b>total w/SPECIAL ED</b>      |                          | <b>total w/SPECIAL ED</b>      |          |                                                                                                           |
|                                                      | Main Building - 115 Greenough                         |                                          | 2,400    |                               |                       |                                |                          |                                |          |                                                                                                           |
| EX.10                                                | EXCEL (Rm. 203)                                       | 930                                      | 1        | 930                           |                       |                                | 930                      | 1                              | 930      |                                                                                                           |
| EX.30                                                | Excel Office                                          | 150                                      | 1        | 150                           |                       |                                | 150                      | 1                              | 150      | Expand Utiliz. @ 3.6 = 4                                                                                  |
| <b>ART &amp; MUSIC / DANCE</b>                       |                                                       |                                          |          |                               |                       |                                |                          |                                |          |                                                                                                           |
| F9G                                                  | 9th Grade Academy @ 111 CYPRESS                       |                                          |          |                               |                       |                                |                          |                                |          |                                                                                                           |
| F9G.10                                               | NEW Art Classroom - 25 seats (and *Art @ UAB)         |                                          |          | 1,500                         | 1                     | 1,500                          |                          |                                |          |                                                                                                           |
| F9G.20                                               | NEW Art Workroom w/ Storage & Klin (and *Art @ UAB)   |                                          |          | 150                           | 1                     | 150                            |                          |                                |          | Flexible Art space for Drawing                                                                            |
| F9G.40                                               | NEW MUSIC/PERF. (Jazz, Orch./Chamber; also Drama)     |                                          |          | 1,500                         | 1                     | 1,500                          |                          |                                |          | Flexible Performance space for Music and Drama                                                            |
|                                                      | MUSIC (* Band, Chorus, Orchestra @ BHS)               |                                          |          |                               |                       |                                |                          |                                |          | * 9th Grade Academy at BHS                                                                                |
| F9G.50                                               | NEW Ensemble                                          |                                          |          | 200                           | 1                     | 200                            |                          |                                |          |                                                                                                           |
| F9G.51                                               | NEW Music Practice                                    |                                          |          | 100                           | 1                     | 100                            |                          |                                |          |                                                                                                           |
| F9G.60                                               | NEW Music Storage (instruments)                       |                                          |          | 150                           | 1                     | 150                            |                          |                                |          |                                                                                                           |
|                                                      | For Dance at Tappan, see F.80                         |                                          |          |                               |                       |                                |                          |                                |          |                                                                                                           |
| <b>MUSIC/DANCE Performing Arts (also AUD./DRAMA)</b> |                                                       |                                          |          |                               |                       |                                |                          |                                |          |                                                                                                           |
|                                                      | Main Building - 115 Greenough                         |                                          |          |                               |                       |                                |                          |                                |          |                                                                                                           |
| F.40                                                 | Band - 50-100 seats (Rm.120)                          | 1,750                                    | 1        | 1,750                         |                       |                                | 1,750                    | 1                              | 1,750    | Music Expand Utiliz. @ 2,185 = 3; Music Utiliz. Z-Block=6; provide dedicated Piano Lab; Small Choral      |
| F.42                                                 | Chorus - 50-100 seats (Rm.324)                        | 1,140                                    | 1        | 1,140                         |                       |                                | 1,140                    | 1                              | 1,140    | BHS Band + includes Digital Production                                                                    |
| F.44                                                 | Orchestra                                             | existig uses J.20 & J.61                 |          |                               |                       |                                | existig uses J.20 & J.61 |                                |          | BHS Existing; or NEW Chorus existing uses the Drama Stage & White Box under-sized volume for 80+ students |
|                                                      | Tappan Gym                                            |                                          |          |                               |                       |                                |                          |                                |          |                                                                                                           |
| F.80                                                 | Dance Studio-1                                        | 2,950                                    | 1        | 2,950                         |                       |                                | 2,950                    | 1                              | 2,950    |                                                                                                           |

### 3. Space Summary - OPTION 4 Stand-alone 9th Grade Academic Building

| SUMMARY                      |                                            | MAY 2017 ISSUE                            |                       | OPTION 4 Stand-alone Off-Site |             | OPTION 4A & 4C BHS - Greenough |          | OPTION 4B & 4D BHS-Greenough |                       | Comments / Notes |                                                                                     |
|------------------------------|--------------------------------------------|-------------------------------------------|-----------------------|-------------------------------|-------------|--------------------------------|----------|------------------------------|-----------------------|------------------|-------------------------------------------------------------------------------------|
| group                        | ROOM TYPE                                  | BHS CAMPUS Existing Conditional Inventory | ROOM NFA <sup>1</sup> | # OF RMS                      | area totals | ROOM NFA <sup>1</sup>          | # OF RMS | area totals                  | ROOM NFA <sup>1</sup> | # OF RMS         | area totals                                                                         |
| <b>BROOKLINE HIGH SCHOOL</b> |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  |                                                                                     |
| C9                           | CAREER EDUCATION (CTE) TECHNOLOGY          |                                           |                       |                               |             |                                |          |                              |                       |                  |                                                                                     |
| C9G                          | NEW 9th Grade Academy @ 111 CYPRESS        |                                           |                       | 0                             | 0           |                                |          | 18,430                       |                       |                  | 19,990                                                                              |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | 9th Grade Academy                                                                   |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | TOTAL CE - CAREER ED. TECH.<br>9th Grade Academy                                    |
| H9                           | HEALTH/FITNESS & PHYSICAL EDUCATION        |                                           |                       |                               |             |                                |          |                              |                       |                  |                                                                                     |
| H9G                          | 9th Grade Academy @ 111 CYPRESS            |                                           |                       |                               | 1,700       |                                |          | 84,540                       |                       |                  | 84,540                                                                              |
| H9G.5                        | Health Classroom 1500sf w/Storage 200 sf   |                                           |                       | 1                             | 1,700       |                                |          |                              |                       |                  |                                                                                     |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | TOTAL HEALTH/FITNESS & PHYS. ED.<br>9th Grade Academy                               |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | 9th Grade enrolled in Wellness Classes                                              |
| H9                           | HEALTH/FITNESS & PHYSICAL EDUCATION        |                                           |                       |                               |             |                                |          |                              |                       |                  |                                                                                     |
| H9G                          | Tappan Gym - SHARED - BHS & REC.           |                                           |                       |                               |             |                                |          | 82,840                       |                       |                  | 82,840                                                                              |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | HEALTH/FITNESS & PHYSICAL ED                                                        |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | Confirm Off-Site Athletic Facilities for TEAMS                                      |
| H9G                          | PERFORMING ARTS: AUDITORIUM / DRAMA        |                                           |                       |                               |             |                                |          | 16,450                       |                       |                  | 16,450                                                                              |
| H9G                          | NEW 9th Grade Academy @ 111 CYPRESS        |                                           |                       |                               |             |                                |          | 16,450                       |                       |                  | 16,450                                                                              |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | TOTAL PERFORMING ARTS: DRAMA<br>9th Grade Academy                                   |
| H9G                          | PERFORMING ARTS: AUDITORIUM / DRAMA        |                                           |                       |                               |             |                                |          |                              |                       |                  |                                                                                     |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | PERFORMING ARTS: AUD./ DRAMA                                                        |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | see BHS Existing Auditorium / Drama program space                                   |
| K9G                          | DINING & FOOD SERVICE                      |                                           |                       |                               |             |                                |          |                              |                       |                  |                                                                                     |
| K9G                          | NEW 9th Grade Academy @ 111 CYPRESS        |                                           |                       |                               | 6,750       |                                |          | 24,105                       |                       |                  | 24,105                                                                              |
| K9G.10                       | NEW Cafeteria / Student Lounge / Break-out |                                           |                       | 1                             | 3,350       |                                |          |                              |                       |                  |                                                                                     |
| K9G.11                       | NEW Chair / Table Storage                  |                                           |                       | 1                             | 450         |                                |          |                              |                       |                  |                                                                                     |
| K9G.20                       | NEW Scramble Serving Area                  |                                           |                       | 1                             | 750         |                                |          |                              |                       |                  |                                                                                     |
| K9G.30                       | NEW Kitchen                                |                                           |                       | 1                             | 1,800       |                                |          |                              |                       |                  |                                                                                     |
| K9G.40                       | NEW Staff Lunch Room / Lounge              |                                           |                       | 1                             | 400         |                                |          |                              |                       |                  |                                                                                     |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | TOTAL DINING & FOOD SERVICE<br>9th Grade Academy                                    |
| L9G                          | LIBRARY / MEDIA CENTER                     |                                           |                       |                               |             |                                |          |                              |                       |                  |                                                                                     |
| L9G                          | NEW 9th Grade Academy @ 111 CYPRESS        |                                           |                       |                               | 4,200       |                                |          | 13,270                       |                       |                  | 13,270                                                                              |
| L9G.10                       | NEW Library / Media Center                 |                                           |                       | 1                             | 4,200       |                                |          |                              |                       |                  |                                                                                     |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | TOTAL LIBRARY / MEDIA CENTER<br>9th Grade Academy<br>(OR Option use/combine w/ BHS) |
| M9G                          | MEDICAL                                    |                                           |                       |                               |             |                                |          |                              |                       |                  |                                                                                     |
| M9G                          | NEW 9th Grade Academy @ 111 CYPRESS        |                                           |                       |                               | 710         |                                |          | 1,840                        |                       |                  | 1,840                                                                               |
| M9G.10                       | NEW Medical Suite Toilet                   |                                           |                       | 1                             | 60          |                                |          |                              |                       |                  |                                                                                     |
| M9G.10                       | NEW Nurse General / Waiting Room           |                                           |                       | 1                             | 250         |                                |          |                              |                       |                  |                                                                                     |
| M9G.12                       | NEW Interview Room                         |                                           |                       | 1                             | 100         |                                |          |                              |                       |                  |                                                                                     |
|                              |                                            |                                           |                       | 3                             | 300         |                                |          |                              |                       |                  |                                                                                     |
|                              |                                            |                                           |                       |                               |             |                                |          |                              |                       |                  | TOTAL MEDICAL<br>9th Grade Academy and at BHS-Greenough                             |

**LEGEND**

9th Grd. Acad at BHS

Option 4

Option 4

Existing

New



### 3. Space Summary - OPTION 4 Stand-alone 9th Grade Academic Building

**LEGEND**

- 9th Grd.Acad at BHS  Existing
- Option 4  New

MAY 2017 Issue

**SUMMARY**

| group                                    | ROOM TYPE                                      | BHS CAMPUS Existing Conditions Inventory |          | OPTION 4 Stand-alone Off-Site |          | OPTION 4A & 4C BHS - Greenough |             | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes |             |
|------------------------------------------|------------------------------------------------|------------------------------------------|----------|-------------------------------|----------|--------------------------------|-------------|------------------------------|----------|------------------|-------------|
|                                          |                                                | ROOM NFA                                 | # OF RMS | area totals                   | ROOM NFA | # OF RMS                       | area totals | ROOM NFA                     | # OF RMS |                  | area totals |
| <b>BROOKLINE HIGH SCHOOL</b>             |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| <b>ADMINISTRATION</b>                    |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| N9G                                      | NEW 9th Grade Academy @ 111 CYPRESS            |                                          |          |                               |          |                                |             |                              |          |                  |             |
| N9.10                                    | NEW Main Office (MSBA General Office/ Waiting) |                                          |          | 375                           | 1        | 2,020                          |             |                              |          |                  |             |
| N9.20                                    | NEW Teachers' Mail and Time Room               |                                          |          | 100                           | 1        | 100                            |             |                              |          |                  |             |
| N9.21                                    | NEW Copy Room (MSBA Duplicating Rm)            |                                          |          | 200                           | 1        | 200                            |             |                              |          |                  |             |
| N9.23                                    | NEW Records Storage                            |                                          |          | 200                           | 1        | 200                            |             |                              |          |                  |             |
| N9.30                                    | NEW Headmasters Office                         |                                          |          | 375                           | 1        | 375                            |             |                              |          |                  |             |
| N9.31                                    | NEW Headmasters Secretary                      |                                          |          | 125                           | 1        | 125                            |             |                              |          |                  |             |
| N9.32                                    | NEW Assistant Head Masters Office - AH1        |                                          |          | 150                           | 1        | 150                            |             |                              |          |                  |             |
| N9.38                                    | NEW Spare Office / Supervisory                 |                                          |          | 120                           | 1        | 120                            |             |                              |          |                  |             |
| N9.40                                    | NEW Teachers Work Room                         |                                          |          | 375                           | 1        | 375                            |             |                              |          |                  |             |
|                                          | <b>TOTAL</b>                                   |                                          |          | 2,020                         |          |                                | 8,600       | 8,600                        |          |                  |             |
| <b>ADMIN. GUIDANCE</b>                   |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| N9G                                      | NEW 9th Grade Academy @ 111 CYPRESS            |                                          |          | 1,370                         |          |                                |             |                              |          |                  |             |
| N9.50                                    | NEW Conference Room (MSBA Admin& Guid.)        |                                          |          | 450                           | 1        | 450                            |             |                              |          |                  |             |
| N9.60                                    | NEW Guidance Waiting Rm                        |                                          |          | 100                           | 1        | 100                            |             |                              |          |                  |             |
| N9.61                                    | NEW Guidance -Office                           |                                          |          | 150                           | 4        | 600                            |             |                              |          |                  |             |
| N9.90                                    | NEW Guidance Storeroom                         |                                          |          | 100                           | 1        | 100                            |             |                              |          |                  |             |
| N9.91                                    | NEW Guidance Records Storage                   |                                          |          | 120                           | 1        | 120                            |             |                              |          |                  |             |
|                                          | <b>TOTAL</b>                                   |                                          |          | 1,370                         |          |                                | 5,360       | 5,360                        |          |                  |             |
| <b>OTHER</b>                             |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| O9G                                      | NEW 9th Grade Academy @ 111 CYPRESS            |                                          |          | 0                             |          |                                |             |                              |          |                  |             |
| O.01                                     | Security Office                                |                                          |          | 200                           | 1        | 200                            |             |                              |          |                  |             |
|                                          | <b>TOTAL OTHER</b>                             |                                          |          | 200                           | 1        | 200                            |             |                              |          |                  |             |
| <b>CUSTODIAL &amp; MAINTENANCE</b>       |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| NEW 9th Grade Academy @ 111 CYPRESS      |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
|                                          | NEW Custodian's Office (Lounge)                |                                          |          | 150                           | 1        | 150                            |             |                              |          |                  |             |
|                                          | NEW Custodian's Workshop                       |                                          |          | 250                           | 1        | 250                            |             |                              |          |                  |             |
|                                          | NEW Custodian's Storage                        |                                          |          | 400                           | 1        | 400                            |             |                              |          |                  |             |
|                                          | NEW Recycling Room / Trash                     |                                          |          | 400                           | 1        | 400                            |             |                              |          |                  |             |
|                                          | NEW Receiving and General Supply               |                                          |          | 400                           | 1        | 400                            |             |                              |          |                  |             |
|                                          | NEW Storeroom                                  |                                          |          | 500                           | 1        | 500                            |             |                              |          |                  |             |
|                                          | NEW Network / Telecom Room                     |                                          |          | 200                           | 1        | 200                            |             |                              |          |                  |             |
|                                          | <b>TOTAL CUSTODIAL &amp; MAINTENANCE</b>       |                                          |          | 2,300                         |          |                                | 14,850      | 14,850                       |          |                  |             |
| <b>TOTAL NEW ADMINISTRATION</b>          |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| 9th Grade Academy & BHS-Greenough        |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| See BHS existing                         |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| <b>TOTAL ADMIN. GUIDANCE</b>             |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| 9th Grade Academy & BHS-Greenough        |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| See BHS for Career Center                |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| <b>TOTAL OTHER</b>                       |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| 9th Grade Academy                        |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| at BHS Main Office or Asst.Head          |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| <b>TOTAL CUSTODIAL &amp; MAINTENANCE</b> |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |
| 9th Grade Academy                        |                                                |                                          |          |                               |          |                                |             |                              |          |                  |             |

### 3. Space Summary - OPTION 4 at BHS-Greenough

| SUMMARY                                      |                                                                                                                                                 | MAY 2017 Issue        |          | OPTION 4 Stand-alone Off-Site |                       | OPTION 4A & 4C BHS - Greenough |             | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------|-------------------------------|-----------------------|--------------------------------|-------------|------------------------------|----------|------------------|
| group                                        | ROOM/TYPE                                                                                                                                       | ROOM NFA <sup>1</sup> | # OF RMS | area totals                   | ROOM NFA <sup>1</sup> | # OF RMS                       | area totals | ROOM NFA <sup>1</sup>        | # OF RMS |                  |
| <b>BROOKLINE HIGH SCHOOL</b>                 |                                                                                                                                                 |                       |          |                               |                       |                                |             |                              |          |                  |
| BHS CAMPUS Existing Conditions Inventory     |                                                                                                                                                 |                       |          |                               |                       |                                |             |                              |          |                  |
| CORE ACADEMIC CLASSROOMS                     |                                                                                                                                                 |                       |          |                               |                       |                                |             |                              |          |                  |
| A.96                                         | NEW 9th Grade Academy @ 111 CYPRESS                                                                                                             |                       | 25       | 22,500                        |                       | 95                             | 51,410      |                              | 95       | 54,730           |
| CORE ACADEMIC CLASSROOMS                     |                                                                                                                                                 |                       |          |                               |                       |                                |             |                              |          |                  |
| A.10                                         | Main Building - 115 Greenough                                                                                                                   |                       | 69       | 49,590                        |                       | 65                             | 46,910      |                              | 70       | 54,730           |
| A.10                                         | Classrooms                                                                                                                                      |                       | 57       | 39,720                        |                       | 52                             | 37,040      |                              | 57       | 45,560           |
| A.11                                         | Classroom - Over 1000 (Rm.385)                                                                                                                  | 1,010                 | 1        | 1,010                         | 1,010                 | 1                              | 1,010       | 1,010                        | 1        | 1,010            |
| (A.10)                                       | Classroom - 900-999 (Rms.383, 386)                                                                                                              | Varies                | 2        | 1,900                         | Varies                | 2                              | 1,900       | 950                          | 2        | 1,900            |
| A.12                                         | OPT.4A & 4C Renovate 346 as Science;                                                                                                            | 830                   | 1        | 830                           | see Science           |                                |             | 830                          | 1        | 830              |
| A.13                                         | Classroom - 700-799 (also see SWS.11) Use Existing                                                                                              | Varies                | 33       | 22,960                        | Varies                | 33                             | 22,960      | Varies                       | 33       | 22,960           |
|                                              | Classroom - 600-699 (also see SWS.12) OPT.4A & 4C Renovate 343, 344 as Science; or OPT.4B & 4D RENO as Classrms, Collab-space, Teacher Planning | Varies                | 17       | 11,360                        | Varies                | 14                             | 10,000      | Varies                       | 6        | 7,700            |
| A.15                                         | Classroom - 500-599 (Rms. 384, 387)                                                                                                             | Varies                | 2        | 1,170                         | Varies                | 2                              | 1,170       | Varies                       | 2        | 1,170            |
| A.16                                         | OPT.4B & 4D Classroom - 400-499 (Rm.342) no change; or OPT.4A & 4C Classrooms - see Science                                                     | 490                   | 1        | 490                           | see Science           |                                |             | 490                          | 1        | 490              |
| A.18                                         | OPT.4B & 4D Classrooms - 900 - 999 RENO as Classrms, Collab-space, Teacher Planning; or OPT.4A & 4C Classrooms - RENO as Science                |                       |          |                               |                       |                                |             | 0                            | 6        | 5,400            |
| A.19                                         | OPT.4B & 4D Classrooms - 800 - 899 RENO as Classrms, Collab-space, Teacher Planning; or OPT.4A & 4C Classrooms - RENO as Science                |                       |          |                               |                       |                                |             | 0                            | 3        | 2,700            |
| A.17                                         | NEW Expansion Classrooms - 900                                                                                                                  |                       |          |                               |                       |                                |             | 700                          | 2        | 1,400            |
| A.20                                         | NEW Flexible Classroom w/dividing wall                                                                                                          |                       |          |                               |                       |                                |             |                              |          |                  |
| A.30                                         | Tutorial Classrooms                                                                                                                             | subtotal              | 3        | 1,850                         | subtotal              | 3                              | 1,850       | subtotal                     | 3        | 1,150            |
| A.31                                         | Tutorial (Rm.201)                                                                                                                               | 700                   | 1        | 700                           | 700                   | 1                              | 700         | 700                          | 1        | 700              |
| A.32                                         | Tutorial (Rm.267)                                                                                                                               | 470                   | 1        | 470                           | 470                   | 1                              | 470         | 470                          | 1        | 470              |
| A.33                                         | Tutorial (Rm.283)                                                                                                                               | 680                   | 1        | 680                           | 680                   | 1                              | 680         | 680                          | 1        | 680              |
|                                              | NEW Tutorial                                                                                                                                    |                       |          |                               |                       |                                |             |                              |          |                  |
| A.40                                         | NEW Multi-Use Large Group Rm w/storage                                                                                                          |                       |          |                               |                       |                                |             |                              |          |                  |
| A.50                                         | Study Hall Classroom (at 9th Grade Academy)                                                                                                     | 600                   | 1        | 600                           | 600                   | 1                              | 600         | 600                          | 1        | 600              |
| CORE ACADEMIC CLASSROOMS continues next page |                                                                                                                                                 |                       |          |                               |                       |                                |             |                              |          |                  |

**LEGEND**  
 Existing  
 Option 4  
 Option 4  
 New

### 3. Space Summary - OPTION 4 at BHS-Greenough

**LEGEND**

Option 4 at BHS:  Existing  New

**SUMMARY** MAY 2017 Issue

| BROOKLINE HIGH SCHOOL                                                                    |           | BHS CAMPUS Existing Conditions Inventory |          | OPTION 4 Stand-alone Off-Site |                       | OPTION 4A & 4C BHS - Greenough |              | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes |                                                                                                                                                                                                                                         |                                                                                                    |
|------------------------------------------------------------------------------------------|-----------|------------------------------------------|----------|-------------------------------|-----------------------|--------------------------------|--------------|------------------------------|----------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| group                                                                                    | ROOM TYPE | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals                   | ROOM NFA <sup>1</sup> | # OF RMS                       | area totals  | ROOM NFA <sup>1</sup>        | # OF RMS |                  | area totals                                                                                                                                                                                                                             |                                                                                                    |
| <b>ACE - Alternative Choices in Education</b><br>(Confirm Share with SWS, program group) |           |                                          |          | <b>3,640</b>                  |                       |                                | <b>3,640</b> |                              |          | <b>3,640</b>     | ACE confirm impact of enrollment on program space<br>Expansion Utilization @ 6 w/ 70 students current @ 43 students and max./cap @ 48. It is possible that ACE programs are growing, plus other thematic academic programs are growing. |                                                                                                    |
| Main Building - 115 Greenough                                                            |           |                                          | 4        |                               |                       |                                |              | subtotal                     | 4        |                  |                                                                                                                                                                                                                                         |                                                                                                    |
| ACE.10 ACE Math (Rm.255)                                                                 |           | 750                                      | 1        | 750                           |                       |                                | 750          |                              | 750      | 1                | 750                                                                                                                                                                                                                                     |                                                                                                    |
| ACE History / Social Studies (Rm.253)                                                    |           | 660                                      | 1        | 660                           |                       |                                | 660          |                              | 660      | 1                | 660                                                                                                                                                                                                                                     |                                                                                                    |
| ACE English (Rm.250)                                                                     |           | 690                                      | 1        | 690                           |                       |                                | 690          |                              | 690      | 1                | 690                                                                                                                                                                                                                                     |                                                                                                    |
| ACE.10 Expansion ACE Classroom - 750                                                     |           |                                          |          |                               |                       |                                |              | 900                          | 0        | -                | 900                                                                                                                                                                                                                                     | Note or use adjacent to Classroom Rm. 258 -680                                                     |
| ACE.40 ACE Science (Rm.254)                                                              |           | 730                                      | 1        | 730                           |                       |                                | 730          |                              | 730      | 1                | 730                                                                                                                                                                                                                                     |                                                                                                    |
| ACE.60 ACE General Office / Reception                                                    |           | 430                                      | 1        | 430                           |                       |                                | 430          |                              | 430      | 1                | 430                                                                                                                                                                                                                                     |                                                                                                    |
| ACE.61 ACE Coordinator Office                                                            |           | 160                                      | 1        | 160                           |                       |                                | 160          |                              | 160      | 1                | 160                                                                                                                                                                                                                                     |                                                                                                    |
| ACE.62 ACE Guidance                                                                      |           | 220                                      | 1        | 220                           |                       |                                | 220          |                              | 220      | 1                | 220                                                                                                                                                                                                                                     |                                                                                                    |
| <b>SWS - SCHOOL WITHIN A SCHOOL</b>                                                      |           |                                          |          | <b>2,790</b>                  |                       |                                | <b>2,790</b> |                              |          |                  | <b>2,790</b>                                                                                                                                                                                                                            | SWS                                                                                                |
| Main Building - 115 Greenough                                                            |           |                                          | 3        |                               |                       |                                |              | SWS-1                        | 3        |                  |                                                                                                                                                                                                                                         | Extg SWS Classrms-3<br>Expand Utiliz.@3,277 =4; Program expansion requires 2nd SWS                 |
| SWS.10 SWS-1 Classroom - 800-900 (Rm.403)                                                |           | 840                                      | 1        | 840                           |                       |                                | 840          |                              | 840      | 1                | 840                                                                                                                                                                                                                                     |                                                                                                    |
| SWS.11 SWS-1 Classroom - 700-800 (Rm.404)                                                |           | 740                                      | 1        | 740                           |                       |                                | 740          |                              | 740      | 1                | 740                                                                                                                                                                                                                                     |                                                                                                    |
| SWS.12 SWS-1 Classroom - 600-700 (Rm 406)                                                |           | 660                                      | 1        | 660                           |                       |                                | 660          |                              | 660      | 1                | 660                                                                                                                                                                                                                                     | include at Enhanced only<br>Expand Utiliz.@3,277 =4; Program expansion adds a second SWS-2 program |
| SWS.10 SWS-2 Program Classroom                                                           |           |                                          |          |                               |                       |                                |              |                              |          |                  |                                                                                                                                                                                                                                         |                                                                                                    |
| SWS.40 SWS Science (included in A.40 Science)                                            |           |                                          |          |                               |                       |                                |              | see A.40                     |          |                  |                                                                                                                                                                                                                                         |                                                                                                    |
| SWS.60 SWS Office (Rm.400A)                                                              |           | 100                                      | 1        | 100                           |                       |                                | 100          |                              | 100      | 1                | 100                                                                                                                                                                                                                                     | confirm impact of enrollment expansion on SWS Admin program space                                  |
| SWS.61 SWS Secretary Office (Rm.400)                                                     |           | 130                                      | 1        | 130                           |                       |                                | 130          |                              | 130      | 1                | 130                                                                                                                                                                                                                                     |                                                                                                    |
| SWS.62 SWS Conference/ Lounge (Rm.400B)                                                  |           | 320                                      | 1        | 320                           |                       |                                | 320          |                              | 320      | 1                | 320                                                                                                                                                                                                                                     |                                                                                                    |
| <b>ELL</b>                                                                               |           |                                          |          | <b>990</b>                    |                       |                                | <b>990</b>   |                              |          |                  | <b>990</b>                                                                                                                                                                                                                              | ELL                                                                                                |
| Main Building - 115 Greenough                                                            |           |                                          | 2        |                               |                       |                                |              | subtotal                     | 2        |                  |                                                                                                                                                                                                                                         | 9th Grade Academy / BHS-Greenough                                                                  |
| ELL.10 ELL - SEI Classroom (BHS Rm.244)                                                  |           | 520                                      | 1        | 520                           |                       |                                | 520          |                              | 520      | 1                | 520                                                                                                                                                                                                                                     | Expand Utiliz.@1,335 =2; 18 students per classroom                                                 |
| ELL - SEI Classroom (BHS Rm.239)                                                         |           | 470                                      | 1        | 470                           |                       |                                | 470          |                              | 470      | 1                | 470                                                                                                                                                                                                                                     | use MSBA Standard Small Group/Seminar 500sf                                                        |

### 3. Space Summary - OPTION 4 at BHS-Greenough

| SUMMARY                            |                                                                                                                                                            | MAY 2017 Issue                           |          | OPTION 4 Stand-alone Off-Site |          | OPTION 4A & 4C BHS - Greenough                  |             | OPTION 4B & 4D BHS-Greenough                        |          | Comments / Notes            |        |             |        |                                                                                   |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------|-------------------------------|----------|-------------------------------------------------|-------------|-----------------------------------------------------|----------|-----------------------------|--------|-------------|--------|-----------------------------------------------------------------------------------|
| BROOKLINE HIGH SCHOOL              | ROOMTYPE                                                                                                                                                   | BHS CAMPUS Existing Conditions Inventory |          | New 9th Grade Academy         |          | 10th, 11th, 12th Grades BHS w/Renovated Science |             | 10th, 11th, 12th Grades BHS w/New Science STEM Wing |          | TOTAL CORE ACADEMIC SCIENCE |        |             |        |                                                                                   |
|                                    |                                                                                                                                                            | ROOM NFA                                 | # OF RMS | area totals                   | ROOM NFA | # OF RMS                                        | area totals | ROOM NFA                                            | # OF RMS |                             |        | area totals |        |                                                                                   |
| CORE ACADEMIC / SCIENCE CLASS-LABS |                                                                                                                                                            |                                          |          |                               |          |                                                 |             |                                                     |          |                             |        |             |        |                                                                                   |
| S.99                               | 9th Grade Academy @ 111 CYPRESS                                                                                                                            |                                          |          | 6                             |          | 8,900                                           |             |                                                     |          | 24                          | 31,190 | 24          | 35,200 | 9th Grade Academy                                                                 |
| CORE ACADEMIC / SCIENCE CLASS-LABS |                                                                                                                                                            |                                          |          |                               |          |                                                 |             |                                                     |          |                             |        |             |        |                                                                                   |
|                                    |                                                                                                                                                            |                                          |          |                               |          |                                                 |             |                                                     |          |                             | 22,290 |             | 26,300 | CORE ACADEMIC SCIENCE                                                             |
|                                    |                                                                                                                                                            |                                          |          |                               |          |                                                 |             |                                                     |          |                             |        | 18          |        | BHS - Greenough                                                                   |
| Main Building - 115 Greenough      |                                                                                                                                                            |                                          |          |                               |          |                                                 |             |                                                     |          |                             |        |             |        |                                                                                   |
| S.40                               | Science / Laboratories - Classlabs                                                                                                                         |                                          | 23       |                               |          | 20,110                                          |             |                                                     |          | 18                          | 20,110 | 18          | 22,500 | Existing Science=23; Expand Utiliz. @ 23,529=24                                   |
| S.41                               | OPT.4A & 4C RENO Science - 1200-1300 (Rm.366) or OPT.4B & 4D RENO as Classroom, Collab, Teacher Plan                                                       | 1,240                                    | 1        | 1,240                         |          |                                                 | 1,240       | 1                                                   | 1,240    |                             |        |             |        | All existing Science Class-Labs are undersized per MSBA Standards                 |
| S.42                               | OPT.4A & 4C Science - 1000-1100 (Rms 351, 368, 370, 376) or OPT.4B & 4D RENO as Classroom, Collab, Teacher Plan                                            |                                          | 4        | 4,200                         |          |                                                 |             | 4                                                   | 4,200    |                             |        |             |        | Biology and Chemistry Utiliz. Indicate 8.31                                       |
| S.43                               | OPT.4A & 4C RENO Science - 900-999 (5=4) (Rms. 350, 357, 360, 362, 371, 375) or OPT.4B & 4D RENO as Classroom, Collab, Teacher Plan                        |                                          | 6        | 5,640                         |          |                                                 |             | 5                                                   | 5,640    |                             |        |             |        |                                                                                   |
| S.44                               | OPT.4A & 4C RENO Science - 800-899; Renovate 346 and RENO Science Rms. 345, 354, 359, 378, 379, 380 or OPT.4B & 4D RENO as Classroom, Collab, Teacher Plan |                                          | 6        | 5,160                         |          |                                                 |             | 4                                                   | 5,160    |                             |        |             |        |                                                                                   |
| S.45                               | OPT.4A & 4C RENO Science - 600-699 Rms. 358, 361, 364, 352; or OPT.4B & 4C RENO as Classroom, Collab, Teacher Plan                                         |                                          | 4        | 2,620                         |          |                                                 |             | 2                                                   | 2,620    |                             |        |             |        | Renovate as Small Group Seminar spaces or Commons Project Areas, distribution tbd |
| S.46                               | OPT.4A & 4C RENO Science - 800 (Rm. 373 & Greenhouse 373A) or OPT.4B & 4D RENO as Classroom, Collab, Teacher Plan                                          | 800                                      | 1        | 800                           |          |                                                 | 800         | 1                                                   | 800      |                             |        |             |        | Existing Not Used as Green House; Combine Repurpose / Renovate as Medium ClassLab |
| S.60                               | Green House (Rm. 373A)                                                                                                                                     | 450                                      | 1        | 450                           |          |                                                 | 450         | 1                                                   | 450      |                             |        |             |        |                                                                                   |
| S.50                               | OPT.4B & 4D NEW Science @ Rogers Wing; or OPT.4A & 4C Renovate Existing to Remain                                                                          |                                          |          |                               |          |                                                 |             |                                                     |          |                             |        | 1,250       | 22,500 |                                                                                   |
| S.60                               | Science Prep Room                                                                                                                                          |                                          |          |                               |          |                                                 | subtotal    |                                                     | 2,180    |                             | 200    | 18          | 3,600  |                                                                                   |
| S.61                               | Prep Room (varies see inventory)                                                                                                                           |                                          | 4        | 1,370                         |          |                                                 | Varies      | 4                                                   | 1,370    |                             |        |             |        |                                                                                   |
| S.62                               | Central Chemical Storage (Rm.372)                                                                                                                          |                                          | 2        | 560                           |          |                                                 | Varies      | 2                                                   | 560      |                             |        | 200         | 200    |                                                                                   |
| S.63                               | Lab Specialist Office (353B)                                                                                                                               | 250                                      | 1        | 250                           |          |                                                 | 250         | 1                                                   | 250      |                             |        |             |        |                                                                                   |
| S.60                               | Expand Science Prep Room                                                                                                                                   |                                          |          |                               |          |                                                 | 200         | 0                                                   | -        |                             |        |             |        | combine (2) at 400 nsf shared at (2) ClassLabs                                    |
| A.70                               | NEW Science Exhibit Space                                                                                                                                  |                                          |          |                               |          |                                                 |             |                                                     |          |                             |        |             |        | 100in. ft Display Caseworks at ClassLabs Corridors                                |

**LEGEND**

|                                                                                                                                                  |                                                                                                                                      |                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> 9th Grd. Acad at BHS | <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Option 4 | <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Existing |
| <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Option 4             | <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> New      |                                                                                                                                      |

### 3. Space Summary - OPTION 4 at BHS-Greenough

**LEGEND**

|  |                 |  |          |
|--|-----------------|--|----------|
|  | Option 4        |  | Existing |
|  | Option 4 at BHS |  | New      |

**SUMMARY**

MAY 2017 Issue

| Group                                           | ROOM/TY/EE                                                    | BHS CAMPUS Existing Conditions Inventory |          | OPTION 4 Stand-alone Off-Site New 9th Grade Academy |       | OPTION 4A & 4C BHS - Greenough |       | OPTION 4B & 4D BHS - Greenough |        | Comments / Notes                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------|---------------------------------------------------------------|------------------------------------------|----------|-----------------------------------------------------|-------|--------------------------------|-------|--------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 |                                                               | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals                                         | total | area totals                    | total | area totals                    | total  |                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>COMMON SHARED - COLLAB &amp; SMALL GROUP</b> |                                                               |                                          |          |                                                     |       |                                |       |                                |        |                                                                                                                                                                                                                                                                                                                                                                                         |
| CS9                                             | 9th Grade Academy @ 111 CYPRESS                               |                                          |          | 0                                                   | 4,200 |                                | 5,490 |                                | 11,950 | 9th Grade Academy                                                                                                                                                                                                                                                                                                                                                                       |
| <b>SMALL GROUP / SEMINAR</b>                    |                                                               |                                          |          |                                                     |       |                                | 0     |                                | 1,860  | SMALL GROUP / SEMINAR                                                                                                                                                                                                                                                                                                                                                                   |
|                                                 | Main Building - 115 Greenough                                 |                                          |          | 0                                                   |       |                                |       |                                |        |                                                                                                                                                                                                                                                                                                                                                                                         |
| A.50                                            | Small Group Seminar (20-30 seats)                             |                                          |          |                                                     |       |                                |       |                                |        | MSBA includes w/ CORE ACAD. Classrooms Total                                                                                                                                                                                                                                                                                                                                            |
|                                                 | RENO Small Group Seminars 20-30 occ. @ 500                    |                                          |          |                                                     |       |                                |       |                                |        | Various OPTIONS allow Repurpose/Renovate undersized Classrooms; create Small Group Rms OR Teacher Planning; see A.14-A.16; The existing Library has (2) of Small Group Rms for 4-students. The current need is for (5-7); English Dept. wants (5) Small Group Rooms for study sessions, Student-Teacher Conferences outside the Classrooms but must be visible for Teacher supervision. |
| A.51                                            | RENO Group Rooms - Medium 12-15 Occ @ 300                     |                                          |          |                                                     |       |                                |       |                                |        |                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                 | RENO Small Group Conf. Rooms - 4-6 Occ @ 120                  |                                          |          |                                                     |       |                                |       |                                |        |                                                                                                                                                                                                                                                                                                                                                                                         |
| A.52                                            | NEW Small Group Conf. Rooms - 4-6 Occ @ 120                   |                                          |          |                                                     |       |                                |       |                                |        |                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                 |                                                               |                                          |          |                                                     |       |                                |       |                                |        |                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                 |                                                               |                                          |          |                                                     |       |                                |       |                                |        |                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>COMMON SHARED / Collaborative Learning</b>   |                                                               |                                          |          |                                                     |       |                                | 5,490 |                                | 10,090 | <b>COMMON SHARED</b> not included in MSBA guidelines                                                                                                                                                                                                                                                                                                                                    |
|                                                 | Main Building - 115 Greenough                                 |                                          |          |                                                     |       |                                |       |                                |        |                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                 | Martin Luther King Room (Rm. 169)                             | 1,410                                    | 1        | 1,410                                               |       | 1,410                          | 1,410 | 1                              | 1,410  | Language Lab - Large w/ Control Room CS.12 & Language Lab-Small CS. 13                                                                                                                                                                                                                                                                                                                  |
| CS.11                                           | Language Lab - Large (Rm.230)                                 | 1,180                                    | 1        | 1,180                                               |       | 1,180                          | 1,180 | 1                              | 1,180  | Control room at Language CS. 10 & Computer ClassLab CS.13                                                                                                                                                                                                                                                                                                                               |
| CS.12                                           | Language Lab. Control Rm (Rm. 229)                            | 200                                      | 1        | 200                                                 |       | 200                            | 200   | 1                              | 200    |                                                                                                                                                                                                                                                                                                                                                                                         |
| CS.13                                           | Language Lab - Medium (Rms.226)                               | 470                                      | 1        | 470                                                 |       | 470                            | 470   | 1                              | 470    |                                                                                                                                                                                                                                                                                                                                                                                         |
| CS.14                                           | Computer Lab (Rms. 389)                                       | 820                                      | 1        | 820                                                 |       | 820                            | 820   | 1                              | 820    |                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                 |                                                               |                                          |          |                                                     |       |                                |       |                                |        |                                                                                                                                                                                                                                                                                                                                                                                         |
| CS.20                                           | NEW Maker Space                                               |                                          |          |                                                     |       |                                |       |                                |        | OPT.4B/4D NEW at Science Wing                                                                                                                                                                                                                                                                                                                                                           |
| CS.21                                           | TEST-Collaborative Space (Basement Rm)                        | 1,410                                    | 1        | 1,410                                               |       | 1,410                          | 1,410 | 1                              | 1,410  | Project Area Maker Space                                                                                                                                                                                                                                                                                                                                                                |
| CS.30                                           | Collab. Learning Commons - Large (1500-2000sf)                |                                          |          |                                                     |       |                                |       |                                |        | Science use Test-Space for Lego-Robotics                                                                                                                                                                                                                                                                                                                                                |
| CS.31                                           | Collab. Learning Commons - Medium (700-1000sf)                |                                          |          |                                                     |       |                                |       |                                |        |                                                                                                                                                                                                                                                                                                                                                                                         |
| CS.32                                           | Collab. Learning Commons - Small                              |                                          |          |                                                     |       |                                |       |                                |        | OPT.4B/4D NEW at Science Wing                                                                                                                                                                                                                                                                                                                                                           |
|                                                 | Large Flexible Flat-Floor Gathering Space (enclose Courtyard) |                                          |          |                                                     |       |                                |       |                                |        | Flexible space flat-floor for large assembly +/-750 occ. coordinate w/Cafeteria; Community space, Transform Courtyard                                                                                                                                                                                                                                                                   |

### 3. Space Summary - OPTION 4 at BHS-Greenough

| SUMMARY                                       |                                                 | MAY 2017 ISSUE                          |                       | OPTION 4 Stand-alone Off-Site |             | OPTION 4A & 4C BHS - Greenough |          | OPTION 4B & 4D BHS-Greenough |                       | Comments / Notes |          |                                                                          |
|-----------------------------------------------|-------------------------------------------------|-----------------------------------------|-----------------------|-------------------------------|-------------|--------------------------------|----------|------------------------------|-----------------------|------------------|----------|--------------------------------------------------------------------------|
| group                                         | ROOM/TYPE                                       | BHSCAMPUS Existing Conditions Inventory | ROOM NFA <sup>1</sup> | # OF RMS                      | area totals | ROOM NFA <sup>1</sup>          | # OF RMS | area totals                  | ROOM NFA <sup>1</sup> |                  | # OF RMS | area totals                                                              |
| <b>BROOKLINE HIGH SCHOOL</b>                  |                                                 |                                         |                       |                               |             |                                |          |                              |                       |                  |          |                                                                          |
| <b>TEACHER PLANNING - Departments / Teams</b> |                                                 |                                         |                       |                               |             |                                |          |                              |                       |                  |          |                                                                          |
| T.9G                                          | NEW 9th Grade Academy @ 111 CYPRESS             |                                         |                       |                               |             |                                |          |                              |                       |                  |          | TOTAL TEACHER PLANNING<br>9th Grade Academy                              |
| <b>TEACHER PLANNING - Departments / Teams</b> |                                                 |                                         |                       |                               |             |                                |          |                              |                       |                  |          |                                                                          |
| T.10                                          | Main Building - 115 Greenough                   |                                         |                       |                               |             |                                |          |                              |                       |                  |          | TEACHER PLANNING                                                         |
|                                               | RENO as NEW Teacher Planning                    |                                         |                       |                               |             |                                |          |                              |                       |                  |          | Expand Utiliz. For Staff pending                                         |
| T.11                                          | Science Teacher Office (Rm.363)                 | 470                                     | 1                     | 470                           |             | Existing to remain             |          | 7,080                        | Existing to remain    |                  | 7,080    | Admin and Dean Team configuration, departments vs. interdisciplinary     |
|                                               | Science Chair Office (Rm.365=120 and 365A=80)   | 200                                     | 1                     | 200                           |             | existing                       |          | 7,080                        | existing              |                  | 7,080    | OPT.4B/4D NEW at Science Wing                                            |
|                                               | Science Secretary Office (Rm.367)               | 330                                     | 1                     | 330                           |             |                                |          |                              |                       |                  |          |                                                                          |
| T.12                                          | Social Studies Teacher Office (Rm.393)          | 690                                     | 1                     | 690                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | Social Studies Chair Office (Rm.393A)           | 120                                     | 1                     | 120                           |             |                                |          |                              |                       |                  |          |                                                                          |
| T.13                                          | English Teacher Office (Rm.394)                 | 690                                     | 1                     | 690                           |             |                                |          |                              |                       |                  |          | English Dept. prefers to be together for collaboration and coordination; |
|                                               | English Chair Office (Rm.394A)                  | 120                                     | 1                     | 120                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | English Office (Rm.339)                         | 250                                     | 1                     | 250                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | English Office (Rm.332)                         | 410                                     | 1                     | 410                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | English Office (Rm.411)                         | 320                                     | 1                     | 320                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | Eng/SS Book Storage (Eng.Rm.396, SS.Rm.390)     | 400                                     | 2                     | 800                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | Eng/SS Shared Conference Room (Rm.394B)         | 180                                     | 1                     | 180                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | Eng/SS Shared Kitchenette (Rm.394C)             | 170                                     | 1                     | 170                           |             |                                |          |                              |                       |                  |          |                                                                          |
| T.14                                          | Math Teacher Office (Rm.268) w/Kitchen (Rm.271) | 720                                     | 1                     | 720                           |             |                                |          |                              |                       |                  |          | 610sf + 110 sf                                                           |
|                                               | Math Office - Small (Rm.268A)                   | 100                                     | 1                     | 100                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | Math Office - (Rm.272)                          | 110                                     | 1                     | 110                           |             |                                |          |                              |                       |                  |          |                                                                          |
| T.15                                          | Language Resource (Rm.212)                      | 470                                     | 1                     | 470                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | Language Chair Office (Rm.212A)                 | 130                                     | 1                     | 130                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | Language Office - Small (Rm.212B)               | 100                                     | 1                     | 100                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | ELL - SEI Office (Rms.234)                      | Varies                                  | 2                     | 240                           |             |                                |          |                              |                       |                  |          | use MSBA Standard Small Group/Seminar-500sf                              |
|                                               | Teacher Planning (Rm.215)                       | 210                                     | 1                     | 210                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | Performing Arts Office (Rm.322 and 216)         | 250                                     | 1                     | 250                           |             |                                |          |                              |                       |                  |          |                                                                          |
|                                               | VArts Offices see also UAB                      |                                         |                       |                               |             |                                |          |                              |                       |                  |          |                                                                          |
| T.20                                          | Teacher/Staff Lounge - Kitchenette see K.41     |                                         | 1                     |                               |             |                                |          |                              |                       |                  |          | See K.41 Kitchenette; (Rm.256 near ACE)                                  |

**LEGEND**

|                                                                                                                                                  |                                                                                                                                      |                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> 9th Grd. Acad at BHS | <span style="background-color: #d9ead3; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Option 4 | <span style="background-color: #f4cccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Existing |
|                                                                                                                                                  | <span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Option 4 | <span style="background-color: #f4cccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> New      |

### 3. Space Summary - OPTION 4 at BHS-Greenough

**LEGEND**

|                      |          |          |
|----------------------|----------|----------|
| 9th Grd. Acad at BHS | Option 4 | Existing |
|                      | Option 4 | New      |

MAY 2017 Issue

**SUMMARY**

| BROOKLINE HIGH SCHOOL                                               |                                                    | BHS CAMPUS Existing Conditions Inventory |          | OPTION 4 Stand-alone Off-Site |                       | OPTION 4A & 4C BHS - Greenough |             | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes |                          |
|---------------------------------------------------------------------|----------------------------------------------------|------------------------------------------|----------|-------------------------------|-----------------------|--------------------------------|-------------|------------------------------|----------|------------------|--------------------------|
| group                                                               | ROOM TYPE                                          | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals                   | ROOM NFA <sup>1</sup> | # OF RMS                       | area totals | ROOM NFA <sup>1</sup>        | # OF RMS |                  | area totals              |
| <b>SPECIAL EDUCATION</b>                                            |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| EGG                                                                 | 9th Grade Academy @ 111 CYPRESS                    |                                          |          | 6,810                         |                       | 20,420                         | 9th+BHS     |                              | 20,420   | 9th+BHS          | TOTAL SPECIAL EDUCATION  |
| <b>SPECIAL EDUCATION</b>                                            |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| <b>Main Building - 115 Greenough</b>                                |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| subtotal                                                            |                                                    |                                          |          | 3,610                         |                       | 6                              |             |                              | 6        |                  |                          |
| E.10                                                                | SPECIAL ED-Classroom - Self-Contained              |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| E.11                                                                | SPECIAL ED - RISE & English (Rm.142)               | 680                                      | 1        | 680                           | 680                   | 1                              | 680         | 680                          | 1        | 680              |                          |
| E.12                                                                | SPECIAL ED - RISE (Rm.146)                         | 700                                      | 1        | 700                           | 700                   | 1                              | 700         | 700                          | 1        | 700              |                          |
| E.13                                                                | SPECIAL ED - CBC (Rm.148)                          | 490                                      | 1        | 490                           | 490                   | 1                              | 490         | 490                          | 1        | 490              |                          |
| E.14                                                                | SPECIAL ED - Math (Rm.237)                         | 490                                      | 1        | 490                           | 490                   | 1                              | 490         | 490                          | 1        | 490              |                          |
| E.15                                                                | SPECIAL ED - English (Rm.334) (near toilet Rm.335) | 540                                      | 1        | 540                           | 540                   | 1                              | 540         | 540                          | 1        | 540              | 0.286                    |
| E.16                                                                | SPECIAL ED - BRIDGE (Rm.105)                       | 660                                      | 1        | 660                           | 660                   | 1                              | 660         | 660                          | 1        | 660              |                          |
| E.20                                                                | Self-Contained SPECIAL ED Toilet at E.10           |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| Toilet Rm. 105 near BRIDGE/near CBC (Rm.152)                        |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| E.30                                                                | Special Ed. Resource Room                          | 50                                       | 1        | 50                            | 50                    | 1                              | 50          | 50                           | 1        | 50               |                          |
| PT see PE/Fitness Mezzanine Rm.M014 at Schluntz                     |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| E.31                                                                | Special Ed. Offices (Rm.123) - Psychologist        | 460                                      | 1        | 460                           | 460                   | 1                              | 460         | 460                          | 1        | 460              |                          |
| E.40                                                                | NEW - PT                                           |                                          |          |                               | 1,000                 | 0                              | -           | 1,000                        | 0        | -                |                          |
| PT at the Mezzanine Physical Ed./Fitness                            |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| E.41                                                                | NEW - OT                                           |                                          |          |                               | 500                   | 0                              | -           | 500                          | 0        | -                |                          |
| Worced(T) and (Z) respectively to Cypress and Use existing          |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| E.50                                                                | SP-Transition/Employment (Rm.109E)                 | 710                                      | 1        | 710                           | 710                   | 1                              | 710         | 710                          | 1        | 710              |                          |
| E.60                                                                | NEW Kitchen and Laundry Facility                   |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| E.70                                                                | NEW Life Skills Apartment                          |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| also see E.80's Small Group Room                                    |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| PT at the Mezzanine Physical Ed./Fitness                            |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| confirm schedule for Transition 1 & 2, and Employment Support 1 & 2 |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
| SPECIAL EDUCATION continues next page                               |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  |                          |
|                                                                     |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  | S.E. continues next page |
|                                                                     |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  | S.E. continues next page |
|                                                                     |                                                    |                                          |          |                               |                       |                                |             |                              |          |                  | S.E. continues next page |

### 3. Space Summary - OPTION 4 at BHS-Greenough

| SUMMARY                                      |                                              | MAY 2017 ISSUE |          | OPTION 4    |             | OPTION 4A & 4C     |          | OPTION 4B & 4D |                    | Comments / Notes |          |
|----------------------------------------------|----------------------------------------------|----------------|----------|-------------|-------------|--------------------|----------|----------------|--------------------|------------------|----------|
| group                                        | ROOM TYPE                                    | ROOM #         | # OF RMS | area totals | area totals | ROOM #             | # OF RMS | area totals    | ROOM #             |                  | # OF RMS |
| SPECIAL EDUCATION continues previous page    |                                              |                |          |             |             |                    |          |                |                    |                  |          |
| BROOKLINE HIGH SCHOOL                        |                                              |                |          |             |             |                    |          |                |                    |                  |          |
| BHS CAMPUS Existing Conditions Inventory     |                                              |                |          |             |             |                    |          |                |                    |                  |          |
|                                              |                                              | subtotal       | 5,450    |             |             |                    |          |                |                    |                  |          |
| E.80                                         | Small Group Room (S.E.-Tutorial/Centers)     | 240            | 1        | 240         |             | 240                | 1        | 240            | 240                | 1                | 240      |
| E.81                                         | Small Group Room (@ Rm.334; E.15)            | 180            | 1        | 180         |             | 180                | 1        | 180            | 180                | 1                | 180      |
| E.82                                         | Special Ed Conference (@ Rm.148; E.13)       | 600            | 1        | 600         |             | 600                | 1        | 600            | 600                | 1                | 600      |
|                                              | Social & Speech Lang. Therapy (Rm.126)       | 130            | 3        | 390         |             | 130                | 3        | 390            | 130                | 3                | 390      |
|                                              | Soc.& Spch Lang. Sm.Ofcs @ Rm.126)           | 180            | 2        | 360         |             | 180                | 2        | 360            | 180                | 2                | 360      |
|                                              | Soc.& Spch Lang. Md.Ofcs @ Rm.126)           |                |          |             |             |                    |          |                |                    |                  |          |
| E.83                                         | SPECIAL ED - Small Group - LAHB (Rm.407)     | 210            | 1        | 210         |             | 210                | 1        | 210            | 210                | 1                | 210      |
|                                              | Special Ed (Rm.121B)                         | 360            | 1        | 360         |             | 360                | 1        | 360            | 360                | 1                | 360      |
|                                              | Special Ed (Rm.121A)                         | 500            | 1        | 500         |             | 500                | 1        | 500            | 500                | 1                | 500      |
| E.84                                         | SPECIAL ED - Pathways (Rm.240)               | 890            | 1        | 890         |             | 890                | 1        | 890            | 890                | 1                | 890      |
| E.85                                         | Supported Learning (Rm.124)                  | 550            | 1        | 550         |             | 550                | 1        | 550            | 550                | 1                | 550      |
| E.86                                         | Sp-Learning Centers (Rm.100)                 | 660            | 1        | 660         |             | 660                | 1        | 660            | 660                | 1                | 660      |
|                                              | SP.E - Learning Center (Rm.284)              | 740            | 1        | 740         |             | 740                | 1        | 740            | 740                | 1                | 740      |
|                                              | SP.E - Learning Center (Rm.311)              | 520            | 1        | 520         |             | 520                | 1        | 520            | 520                | 1                | 520      |
|                                              | SP.E - Learning Center English (Rm.407) LAHB | 110            | 1        | 110         |             | 110                | 1        | 110            | 110                | 1                | 110      |
| E.90                                         | SPECIAL ED Admin                             | 120            | 1        | 120         |             | 120                | 1        | 120            | 120                | 1                | 120      |
|                                              | Special Ed Chair Office                      |                |          |             |             |                    |          |                |                    |                  |          |
|                                              | Special Education                            |                |          |             |             |                    |          |                |                    |                  |          |
| EXCEL                                        |                                              |                |          |             |             |                    |          |                |                    |                  |          |
| Main Building - 115 Greenough                |                                              | subtotal       |          | 2,400       |             | total w/SPECIAL ED |          |                | total w/SPECIAL ED |                  |          |
| EX.10                                        | EXCEL (Rm. 203)                              | 930            | 1        | 930         |             | 930                | 1        | 930            | 930                | 1                | 930      |
|                                              | EXCEL (Rm. 204)                              | 560            | 1        | 560         |             | 560                | 1        | 560            | 560                | 1                | 560      |
|                                              | EXCEL (Rm. 205)                              | 280            | 1        | 280         |             | 280                | 1        | 280            | 280                | 1                | 280      |
|                                              | EXCEL (Rm. 202)                              | 480            | 1        | 480         |             | 480                | 1        | 480            | 480                | 1                | 480      |
| EX.30                                        | Excel Office                                 | 150            | 1        | 150         |             | 150                | 1        | 150            | 150                | 1                | 150      |
| Winthrop House (Not included in Net and GSF) |                                              |                |          |             |             |                    |          |                |                    |                  |          |
| at Baldwin School shares w/ Staff Daycare    |                                              | subtotal       |          | 2,980       |             | total w/SPECIAL ED |          |                | total w/SPECIAL ED |                  |          |
| W.10                                         | Classrooms - Small @ 500sf and 800sf =       | 650            | 2        | 1,300       |             |                    |          |                |                    |                  |          |
| W.11                                         | Classrooms - X-Small @ 430sf and 370sf =     | 400            | 2        | 800         |             |                    |          |                |                    |                  |          |
| W.20                                         | Boys and Girls Toilets (Shared w/SD.10)      | 150            | 2        | 300         |             |                    |          |                |                    |                  |          |
| W.30                                         | Winthrop Offices 130+110+40 w/shared toilet  | 140            | 2        | 280         |             |                    |          |                |                    |                  |          |
| W.31                                         | Winthrop Offices                             | 100            | 2        | 200         |             |                    |          |                |                    |                  |          |
| W.40                                         | Winthrop Storage                             | 100            | 1        | 100         |             |                    |          |                |                    |                  |          |
| LEGEND                                       |                                              |                |          |             |             |                    |          |                |                    |                  |          |
| 9th Grd. Acad at BHS                         |                                              | Option 4       |          | Existing    |             | Option 4           |          | New            |                    |                  |          |





### 3. Space Summary - OPTION 4 at BHS-Greenough & Tappan Gym

| SUMMARY                                       |                                | MAY 2017 Issue          |          | OPTION 4 Stand-alone Off-Site |          | OPTION 4A & 4C BHS - Greenough |             | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes |
|-----------------------------------------------|--------------------------------|-------------------------|----------|-------------------------------|----------|--------------------------------|-------------|------------------------------|----------|------------------|
| group                                         | ROOM TYPE                      | ROOM NFA                | # OF RMS | area totals                   | ROOM NFA | # OF RMS                       | area totals | ROOM NFA                     | # OF RMS |                  |
| <b>BROOKLINE HIGH SCHOOL</b>                  |                                |                         |          |                               |          |                                |             |                              |          |                  |
| ART & MUSIC / DANCE continues previous page   |                                |                         |          |                               |          |                                |             |                              |          |                  |
| MUSIC/DANCE Performing Arts (also AUD./DRAMA) |                                |                         |          |                               |          |                                |             |                              |          |                  |
| Main Building - 115 Greenough                 |                                |                         |          |                               |          |                                |             |                              |          |                  |
| F.40                                          | Band - 50-100 seats (Rm.120)   | 1,750                   | 1        | 1,750                         |          |                                |             |                              |          |                  |
| F.41                                          | NEW Band                       |                         |          |                               |          |                                |             |                              |          |                  |
| F.42                                          | Chorus - 50-100 seats (Rm.324) | 1,140                   | 1        | 1,140                         |          |                                |             |                              |          |                  |
| F.43                                          | NEW Chorus                     |                         |          |                               |          |                                |             |                              |          |                  |
| F.44                                          | Orchestra                      | existg uses J.20 & J.61 |          |                               |          |                                |             |                              |          |                  |
| F.45                                          | NEW Music Space - Large        |                         |          |                               |          |                                |             |                              |          |                  |
| F.50                                          | Ensemble                       |                         |          |                               |          |                                |             |                              |          |                  |
| F.51                                          | Music Practice                 |                         | 2        | 280                           |          |                                |             |                              |          |                  |
| F.60                                          | Music Storage (Instruments)    | confirm existing        |          |                               |          |                                |             |                              |          |                  |
| Tappan Gym                                    |                                |                         |          |                               |          |                                |             |                              |          |                  |
| F.80                                          | Dance Studio-1                 | 2,950                   | 1        | 2,950                         |          |                                |             |                              |          |                  |
|                                               | Dance Studio-2                 | 2,360                   | 1        | 2,360                         |          |                                |             |                              |          |                  |
| F.81                                          | Dance Storage                  | 250                     | 2        | 500                           |          |                                |             |                              |          |                  |
| F.82                                          | Dance Office-1                 | 40                      | 1        | 40                            |          |                                |             |                              |          |                  |
|                                               | Dance Office-2                 | 100                     | 1        | 100                           |          |                                |             |                              |          |                  |
| F.83                                          | NEW Dance Studio-2             |                         |          |                               |          |                                |             |                              |          |                  |

**LEGEND**

9th Grd. Acad at BHS  Option 4  Existing  New

### 3. Space Summary - OPTION 4 at BHS-Greenough & UAB

**LEGEND**

- Option 4 at BHS
- Existing
- New

**SUMMARY** MAY 2017 Issue

| group                                                         | ROOM TYPE                                     | BHS CAMPUS Existing Conditions Inventory |                 | OPTION 4 Stand-alone Off-Site |                       | OPTION 4A & 4C BHS - Greenough |             | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes                                                                                                                     |
|---------------------------------------------------------------|-----------------------------------------------|------------------------------------------|-----------------|-------------------------------|-----------------------|--------------------------------|-------------|------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------|
|                                                               |                                               | ROOM NPA <sup>1</sup>                    | # OF RMS        | area totals                   | ROOM NPA <sup>1</sup> | # OF RMS                       | area totals | ROOM NPA <sup>1</sup>        | # OF RMS |                                                                                                                                      |
| <b>BROOKLINE HIGH SCHOOL</b>                                  |                                               |                                          |                 |                               |                       |                                |             |                              |          |                                                                                                                                      |
| <b>CE - CAREER EDUCATION (CTE) TECHNOLOGY</b>                 |                                               |                                          |                 |                               |                       |                                |             |                              |          |                                                                                                                                      |
| G.9G                                                          | NEW 9th Grade Academy @ 111 CYPRESS           |                                          |                 |                               | 0                     | 18,430                         | 9th+BHS     | 19,990                       | 9th+BHS  | TOTAL CE - CAREER ED. TECH.                                                                                                          |
|                                                               |                                               |                                          |                 |                               | 0                     |                                |             |                              |          | 9th Grade Academy                                                                                                                    |
| <b>CE - CAREER EDUCATION (CTE) VOCATIONS &amp; TECHNOLOGY</b> |                                               |                                          |                 |                               |                       |                                |             |                              |          |                                                                                                                                      |
|                                                               | Main Building - 115 Greenough                 |                                          |                 | 18,430                        |                       |                                |             |                              |          | CE - CAREER ED. TECHNOLOGY                                                                                                           |
| G.10                                                          | Culinary Arts (MSBA Tech Shop)                |                                          | 1,790           |                               |                       |                                |             |                              |          | Existing Culinary Arts=1; Expand Utiliz @2.35; requires 2 Kitchens at 2-Block, provide a larger Kitchen. Expand Reno or New relocate |
| G.10                                                          | Culinary Kitchen (Rm.108)                     |                                          | 700             | 700                           |                       |                                | 700         |                              |          | Locate with Community Access; OPT.4B/4D New at Science Wing                                                                          |
|                                                               | Expand OR NEW Culinary Arts (Kitchen)         |                                          |                 |                               |                       |                                |             | 1,000                        | 1        | 1,000                                                                                                                                |
| G.11                                                          | Restaurant (Rm.106)                           |                                          | 720             | 720                           |                       |                                | 720         |                              |          | 2,000                                                                                                                                |
| G.12                                                          | Culinary Office (Rm.113)                      |                                          | 150             | 150                           |                       |                                | 150         |                              |          | 150                                                                                                                                  |
| G.13                                                          | Culinary Support                              |                                          | 220             | 220                           |                       |                                | 220         |                              |          | 200                                                                                                                                  |
| G.20                                                          | Int. Construct. Tech. (MSBA Tech Shop)        |                                          |                 |                               |                       |                                |             |                              |          |                                                                                                                                      |
| <b>UAB</b>                                                    |                                               |                                          |                 |                               |                       |                                |             |                              |          |                                                                                                                                      |
| G.21                                                          | Int Construction Tech Carpentry (Rms.10 & 11) |                                          | 1,370           | 2                             |                       | 2,740                          | 1,370       | 2                            |          | 2,740                                                                                                                                |
| G.22                                                          | Int. Constr Tech Carpentry Finishing          |                                          | 490             | 1                             |                       | 490                            | 490         | 1                            |          | 490                                                                                                                                  |
| G.23                                                          | Engineering by Design Lab - UAB (Rm.13)       |                                          | 3,240           | 1                             |                       | 3,240                          | 3,240       | 1                            |          | 3,240                                                                                                                                |
|                                                               | (or RENO Rm. 13 for see Sculpture Studio F.17 |                                          |                 |                               |                       |                                |             |                              |          |                                                                                                                                      |
|                                                               | Engineering Office Rm. 13A @ Rm.13            |                                          | 100             | 1                             |                       | 100                            | 100         | 1                            |          | 100                                                                                                                                  |
| G.30                                                          | TV Studio/Digital Design (MSBA Tech)          |                                          | existg=2,850 sf |                               |                       |                                |             |                              |          |                                                                                                                                      |
|                                                               | Digital/TV/Video Studio BlueLab (Rm.49A)      |                                          | 720             | 1                             |                       | 720                            | 720         | 1                            |          | 720                                                                                                                                  |
|                                                               | Digital/TV/Video Studio RedLab (Rm.49B)       |                                          | 520             | 1                             |                       | 520                            | 520         | 1                            |          | 520                                                                                                                                  |
|                                                               | Control Room                                  |                                          | 290             | 1                             |                       | 290                            | 290         | 1                            |          | 290                                                                                                                                  |
|                                                               | TV Studio (Rm.48B)                            |                                          | 650             | 1                             |                       | 650                            | 650         | 1                            |          | 650                                                                                                                                  |
|                                                               | TV Studio Storage (Rm.46)                     |                                          | 670             | 1                             |                       | 670                            | 670         | 1                            |          | 670                                                                                                                                  |
| CE (CTE)/CAREER TECH. continues next page                     |                                               |                                          |                 |                               |                       |                                |             |                              |          |                                                                                                                                      |

### 3. Space Summary - OPTION 4 at BHS-Greenough & UAB

| SUMMARY                                                                    |            | MAY 2017 ISSUE        |          |             |                       | OPTION 4<br>Stand-alone Off-Site |             | OPTION 4A & 4C<br>BHS - Greenough |          | OPTION 4B & 4D<br>BHS-Greenough |       | Comments / Notes                                                                                                                                     |
|----------------------------------------------------------------------------|------------|-----------------------|----------|-------------|-----------------------|----------------------------------|-------------|-----------------------------------|----------|---------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| group                                                                      | ROOM TYPE  | ROOM NFA <sup>1</sup> | # OF RMS | area totals | ROOM NFA <sup>1</sup> | # OF RMS                         | area totals | ROOM NFA <sup>1</sup>             | # OF RMS | area totals                     |       |                                                                                                                                                      |
| BROOKLINE HIGH SCHOOL                                                      |            |                       |          |             |                       |                                  |             |                                   |          |                                 |       |                                                                                                                                                      |
| CE (CTE) CAREER TECH, continues previous page                              |            |                       |          |             |                       |                                  |             |                                   |          |                                 |       |                                                                                                                                                      |
| G.40 Business-Finance/MSBA (Drafting, Business)                            |            |                       |          |             |                       |                                  |             |                                   |          |                                 |       |                                                                                                                                                      |
| Main Building - 115 Greenough                                              |            |                       |          |             |                       |                                  |             |                                   |          |                                 |       |                                                                                                                                                      |
| G.40 School Store (Rm.116)                                                 |            | 400                   | 1        | 400         |                       |                                  |             | 400                               | 1        | 400                             |       | CE Expand.Utiliz.@0.52 =4; enlarge existig schedule as CE; Reno, relocate or new                                                                     |
| UAB                                                                        |            |                       |          |             |                       |                                  |             |                                   |          |                                 |       |                                                                                                                                                      |
| G.41 Engineering Futures ClassLab Rm.16                                    |            | 1,090                 | 1        | 1,090       |                       |                                  |             | 1,090                             | 1        | 1,090                           |       | Expand.Utiliz.Tech.@1.597 =2                                                                                                                         |
| G.42 Business/ Early Childhood - UAB Rm.31                                 |            | 1,400                 | 1        | 1,400       |                       |                                  |             | 1,400                             | 1        | 1,400                           |       | Renov for Business OR Early Childhood not combined; see new                                                                                          |
| G.43 Information Tech UAB Rm.31A                                           |            | 340                   | 1        | 340         |                       |                                  |             | 340                               | 1        | 340                             |       | Confirm space assignment                                                                                                                             |
| G.44 Computer Science - UAB Rm.33                                          |            | 620                   | 1        | 620         |                       |                                  |             | 620                               | 1        | 620                             |       | confirm use existing UAB Rm.33 or reno                                                                                                               |
| G.45 NEW Bus./Tech./Computer - ClassLab                                    |            |                       |          |             |                       |                                  |             |                                   | 0        |                                 |       | also see CS.20 Maker Space                                                                                                                           |
| G.50 CE-Food Prep                                                          |            |                       |          |             |                       |                                  |             |                                   |          |                                 |       | Expand.Utiliz.Food Prep @0.02 =3                                                                                                                     |
| UAB Family & Consumer Science - Rm.38                                      |            | 1,580                 | 1        | 1,580       |                       |                                  |             | 1,580                             | 1        | 1,580                           |       | BHS prefers to expand existing rooms rather than add (1) room; 2,000 msf optimum                                                                     |
| G.51 Renovate and Expand Existing UAB 2nd Floor                            |            |                       |          |             |                       |                                  |             |                                   | 0        |                                 |       | Rm.39 is undersized; subdivided 1,000 sf; reconfigure storage and office for 1,500 sf min.                                                           |
| UAB Family & Consumer Science - Rm.39 @1,000 msf plus Office & Storage     |            | 1,640                 | 1        | 1,640       |                       |                                  |             | 1,640                             | 1        | 1,640                           |       | Expand.Utiliz.@.5 = 1; confirm G.50-G.51 room sizes for occ., equipmt., adjacency                                                                    |
| G.60 Medical Career                                                        |            |                       |          |             |                       |                                  |             |                                   |          |                                 |       | program w/Longwood Medical                                                                                                                           |
| G.61 Medical Careers (Rm.347)                                              |            |                       |          |             |                       |                                  |             |                                   |          |                                 |       |                                                                                                                                                      |
| BHS Shares 700sf Classroom see A.13                                        |            | see A.13              | 1        |             |                       |                                  |             |                                   |          |                                 |       |                                                                                                                                                      |
| G.62 Office Medical Interpretation UAB (at UAB Basement 150sf)             |            | 150                   | 1        | 150         |                       |                                  |             | 150                               | 1        | 150                             |       | Expand.Utiliz.=1; confirm reno existing OR confirm provide dedicated space; PLUS see NEW Education Lab w/Observation 1,200 plus 200sf Observ. Office |
| G.70 Early Childhood                                                       |            |                       |          |             |                       |                                  |             |                                   |          |                                 |       |                                                                                                                                                      |
| Existing shares space with Business see G.42                               |            | see G.42              |          |             |                       |                                  |             |                                   |          |                                 |       |                                                                                                                                                      |
| NEW Early Education Lab (Observation) location and Staff-Daycare see SD.01 | Coordinate |                       |          |             |                       |                                  |             | 1,400                             | 0        | -                               | 1,400 | 0                                                                                                                                                    |

**LEGEND**

|                                                                                                               |                                                                                                   |                                                                                                   |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <span style="background-color: #e0e0e0; border: 1px solid black; padding: 2px;"> </span> 9th Grd. Acad at BHS | <span style="background-color: #f0e0e0; border: 1px solid black; padding: 2px;"> </span> Option 4 | <span style="background-color: #e0e0e0; border: 1px solid black; padding: 2px;"> </span> Existing |
| <span style="background-color: #e0e0e0; border: 1px solid black; padding: 2px;"> </span>                      | <span style="background-color: #e0e0e0; border: 1px solid black; padding: 2px;"> </span> Option 4 | <span style="background-color: #e0e0e0; border: 1px solid black; padding: 2px;"> </span> New      |

### 3. Space Summary - OPTION 4 at BHS-Greenough

**LEGEND**

9th Grd. Acad at BHS    Option 4    Existing    New

**SUMMARY**

MAY 2017 ISSUE

| group                                              | ROOM TYPE                                        | BHS CAMPUS Existing Conditions Inventory |          |             | OPTION 4 Stand-alone Off-Site |          |             | OPTION 4A & 4C BHS - Greenough |          |             | OPTION 4B & 4D BHS-Greenough |          |             | Comments / Notes                                                                                                                                                 |
|----------------------------------------------------|--------------------------------------------------|------------------------------------------|----------|-------------|-------------------------------|----------|-------------|--------------------------------|----------|-------------|------------------------------|----------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    |                                                  | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals | ROOM NFA <sup>1</sup>         | # OF RMS | area totals | ROOM NFA <sup>1</sup>          | # OF RMS | area totals | ROOM NFA <sup>1</sup>        | # OF RMS | area totals |                                                                                                                                                                  |
| <b>BROOKLINE HIGH SCHOOL</b>                       |                                                  |                                          |          |             |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| <b>HEALTH/FITNESS &amp; PHYSICAL EDUCATION</b>     |                                                  |                                          |          |             |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.9G                                               | 9th Grade Academy @ 111 CYPRESS                  |                                          |          | 1,700       |                               |          |             |                                |          |             |                              |          |             | 9th Grade Academy                                                                                                                                                |
| <b>HEALTH/FITNESS &amp; PHYSICAL EDUCATION</b>     |                                                  |                                          |          |             |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
|                                                    |                                                  |                                          |          |             |                               |          |             |                                |          |             |                              |          |             | HEALTH/FITNESS & PHYSICAL ED                                                                                                                                     |
|                                                    | Main Building - 115 Greenough                    | subtotal                                 | 32,245   |             |                               |          |             |                                |          |             |                              |          |             | Confirm Off-Site Athletic Facilities for TEAMS Used by Community Rec.                                                                                            |
| H.10                                               | Schluntz Gym - Low Ceiling w/obstructions        | 11,835                                   | 1        | 11,835      |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.20                                               | Gym Storeroom                                    | Varies                                   | 2        | 1,145       |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.21                                               | Phys. Ed. Storage                                | Varies                                   | 4        | 320         |                               |          |             |                                |          |             |                              |          |             | plus see HT.21 Tappan Storage                                                                                                                                    |
|                                                    | Sports Store Rooms                               | Varies                                   | 2        | 1,740       |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.30                                               | Lockers                                          | subtotal                                 | 11,945   |             |                               |          |             |                                |          |             |                              |          |             | plus see HT.30 Tappan Lockers                                                                                                                                    |
| H.31                                               | Locker Rooms - Boys                              | 5,110                                    | 1        | 5,110       |                               |          |             |                                |          |             |                              |          |             | Renovate and Reconfigure Existing Locker Rooms; also locate near Fitness, Multi-purpose Rm., Dance Studios, and improve changing, shower spaces and make secure. |
| H.32                                               | Locker Room Toilets - Boys                       | 190                                      | 1        | 190         |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.33                                               | Locker Rooms - Girls                             | 4,680                                    | 1        | 4,680       |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.34                                               | Locker Room Toilets - Girls                      | Varies                                   | 2        | 50          |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.35                                               | Visiting Team Room - Lockers                     | 745                                      | 1        | 745         |                               |          |             |                                |          |             |                              |          |             | Confirm Visiting Team Rm and Locker                                                                                                                              |
|                                                    | OR Team Room (Rm.25)                             | 1,170                                    | 1        | 1,170       |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.40                                               | Athletic Director's Office                       | 345                                      | 1        | 345         |                               |          |             |                                |          |             |                              |          |             | Coordinate with Renovations at Tappan Gym                                                                                                                        |
| H4.1                                               | Athletic Director's Secretary                    | 145                                      | 1        | 145         |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
|                                                    | PE Director                                      | 170                                      | 1        | 170         |                               |          |             |                                |          |             |                              |          |             | Coordinate with Renovations at Tappan Gym                                                                                                                        |
| H.42                                               | PE Office's                                      | 120                                      | 1        | 120         |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.43                                               | PE Workroom                                      | 150                                      | 1        | 150         |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.44                                               | Officials Office                                 | Varies                                   | 2        | 160         |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.45                                               | Coaches' Office                                  | 80                                       | 1        | 80          |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.46                                               | Coaches Toilet and Shower                        | 40                                       | 1        | 40          |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| H.47                                               | PE Mezzanine - Wellness/ Conference Room - OT/PT | 1,460                                    | 1        | 1,460       |                               |          |             |                                |          |             |                              |          |             | use for Upper Grades OT/PT; plus see 9th Grade Academy H.9G.5 for Wellness                                                                                       |
| See                                                |                                                  |                                          |          |             |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| HT.15                                              | Crew Training                                    | 1,310                                    | 1        | 1,310       |                               |          |             |                                |          |             |                              |          |             | See MSBA PE Alternate below H.15                                                                                                                                 |
|                                                    | Fitness                                          | 1,280                                    | 1        | 1,280       |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |
| <b>HEALTH/FITNESS &amp; PE continues next page</b> |                                                  |                                          |          |             |                               |          |             |                                |          |             |                              |          |             |                                                                                                                                                                  |

### 3. Space Summary - OPTION 4 - BHS at Tappan Gym

| SUMMARY                                                           | MAY 2017 ISSUE                                      |           | BHS CAMPUS Existing Conditions Inventory |          | OPTION 4 Stand-alone Off-Site |          | OPTION 4A & 4C BHS - Greenough |             | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes                                                  |
|-------------------------------------------------------------------|-----------------------------------------------------|-----------|------------------------------------------|----------|-------------------------------|----------|--------------------------------|-------------|------------------------------|----------|-------------------------------------------------------------------|
|                                                                   | group                                               | ROOM TYPE | ROOM NFA                                 | # OF RMS | area totals                   | ROOM NFA | # OF RMS                       | area totals | ROOM NFA                     | # OF RMS |                                                                   |
| HEALTH/FITNESS & PE continues previous page                       |                                                     |           |                                          |          |                               |          |                                |             |                              |          |                                                                   |
| <b>Tappan Gym - SHARED - BHS &amp; REC.</b>                       |                                                     |           |                                          |          |                               |          |                                |             |                              |          |                                                                   |
| HT.12                                                             | T-GYM-1 Gymnasium - Large                           |           | subtotal                                 | 50,595   |                               |          |                                | 50,595      |                              |          | Confirm Off-Site Athletic Facilities for TEAMS                    |
|                                                                   |                                                     |           | 7,130                                    | 1        | 7,130                         |          |                                | 7,130       | 1                            | 7,130    | Shared with Community Rec.                                        |
| HT.13                                                             | T-GYM-2 Gymnasium - Small                           |           | 5,930                                    | 1        | 5,930                         |          |                                | 5,930       | 1                            | 5,930    | Shared with Community Rec.                                        |
| HT.14                                                             | T-Indoor Playing Field - Pavilion                   |           | 14,980                                   | 1        | 14,980                        |          |                                | 14,980      | 1                            | 14,980   | Shared with Community Rec.                                        |
| 200m Track, 4-volleyball courts, batting cages, badminton, tennis |                                                     |           |                                          |          |                               |          |                                |             |                              |          |                                                                   |
| H.70                                                              | NEW Field House - Expand/ Indoor Play Field         |           |                                          |          |                               |          |                                |             |                              |          |                                                                   |
| PE continues previous page                                        |                                                     |           |                                          |          |                               |          |                                |             |                              |          |                                                                   |
| 9th Grd @ Schluntz & Tappan Gym                                   |                                                     |           |                                          |          |                               |          |                                |             |                              |          |                                                                   |
| HT.15                                                             | NEW PE Court                                        |           |                                          |          |                               |          |                                |             |                              |          |                                                                   |
| HT.17                                                             | Multi-Purpose Room - Large @ Mezz.                  |           | 2,200                                    | 1        | 2,200                         |          |                                | 2,200       | 1                            | 2,200    | locate Multi-purpose near locker rooms                            |
| HT.18                                                             | Multi-Purpose - Med. Rm.32                          |           | 630                                      | 1        | 630                           |          |                                | 630         | 1                            | 630      |                                                                   |
| HTR.16                                                            | Wrestling                                           |           | 2,380                                    | 1        | 2,380                         |          |                                | 2,380       | 1                            | 2,380    | Shared with Community Rec.                                        |
|                                                                   | Wrestling Storage                                   |           | Varies                                   | 2        | 340                           |          |                                | Varies      | 2                            | 340      |                                                                   |
| HT.20                                                             | T-GYM-1 Storage                                     |           | Varies                                   | 2        | 720                           |          |                                | Varies      | 2                            | 720      |                                                                   |
|                                                                   | T-GYM-2 Storage                                     |           | 450                                      | 1        | 450                           |          |                                | 450         | 1                            | 450      |                                                                   |
| H.30                                                              | NEW Lockers (BHS use)                               |           | subtotal                                 | 10,505   |                               |          |                                |             |                              |          | plus see H.30 BHS Lockers                                         |
| HT.30                                                             | * T-Boys Locker & Shower Rooms                      |           | 5,380                                    | 1        | 5,380                         |          |                                | 5,380       | 1                            | 5,380    | * REC-Community Use; confirm all TEAMS                            |
|                                                                   | * T-Girls Locker & Shower Rooms                     |           | 4,270                                    | 1        | 4,270                         |          |                                | 4,270       | 1                            | 4,270    | * REC-Community Use; confirm all TEAMS                            |
|                                                                   | Coaches Locker & Shower Rooms                       |           | 855                                      | 1        | 855                           |          |                                | 855         | 1                            | 855      |                                                                   |
| H.35                                                              | NEW Individual Shower Rooms                         |           |                                          |          |                               |          |                                |             |                              |          | Staff and Transition                                              |
| H.40                                                              | RENO/NEW Sports Medicine Center                     |           |                                          |          |                               |          |                                |             |                              |          | locate Fitness near locker rooms                                  |
| HT.40                                                             | Coach / Phys Ed Office                              |           | 260                                      | 1        | 260                           |          |                                | 260         | 1                            | 260      |                                                                   |
|                                                                   | Phys Ed Office                                      |           | 230                                      | 1        | 230                           |          |                                | 230         | 1                            | 230      |                                                                   |
|                                                                   | Training - Large                                    |           | 1,100                                    | 1        | 1,100                         |          |                                | 1,100       | 1                            | 1,100    |                                                                   |
|                                                                   | Training - Small                                    |           | 340                                      | 1        | 340                           |          |                                | 340         | 1                            | 340      |                                                                   |
|                                                                   | Phys Ed Office                                      |           | 60                                       | 1        | 60                            |          |                                | 60          | 1                            | 60       |                                                                   |
|                                                                   | Officials Room (Rm.124)                             |           | 70                                       | 1        | 70                            |          |                                | 70          | 1                            | 70       |                                                                   |
|                                                                   | Office (Rm.104)                                     |           | 210                                      | 1        | 210                           |          |                                | 210         | 1                            | 210      |                                                                   |
| see M.50                                                          | NEW Nurse Office for GYM-UAB                        |           |                                          |          |                               |          |                                |             |                              |          | Locate New Nurse Ofc. @ TAPPAN Sports Medicine Center             |
| H.50                                                              | NEW Wellness/Fitness Center 50+ occ. Flexible       |           |                                          |          |                               |          |                                |             |                              |          | locate Fitness near locker rooms                                  |
| HT.51                                                             | Fitness Center                                      |           | 2,700                                    | 1        | 2,700                         |          |                                | 2,700       | 1                            | 2,700    |                                                                   |
|                                                                   | Fitness Storage                                     |           | 180                                      | 2        | 360                           |          |                                | 180         | 2                            | 360      |                                                                   |
| see F.15                                                          | Dance Studio/ Dance Offices see ART & MUSIC / DANCE |           |                                          |          |                               |          |                                |             |                              |          | for Dance Studios see F.15 Ed Plan locate dance near locker rooms |

| LEGEND               |          |
|----------------------|----------|
| 9th Grd. Acad at BHS | Existing |
| Option 4             | New      |
| Option 4             |          |

### 3. Space Summary - OPTION 4 at BHS-Greenough

**LEGEND**

- Option 4 at BHS
- Existing
- New

**SUMMARY**

MAY 2017 Issue

| BROOKLINE HIGH SCHOOL |                                         | Existing conditions Inventory |          | OPTION 4 Stand-alone Off-Site |                    | OPTION 4A & 4C BHS - Greenough |             | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes                                               |
|-----------------------|-----------------------------------------|-------------------------------|----------|-------------------------------|--------------------|--------------------------------|-------------|------------------------------|----------|----------------------------------------------------------------|
|                       |                                         | ROOM NFA'                     | # OF RMS | area totals                   | ROOM NFA'          | # OF RMS                       | area totals | ROOM NFA'                    | # OF RMS |                                                                |
| J9G                   | PERFORMING ARTS: AUDITORIUM / DRAMA     |                               |          |                               |                    |                                |             |                              |          |                                                                |
|                       | J9G NEW 9th Grade Academy @ 111 CYPRESS |                               |          |                               |                    | total                          | 16,450      | total                        | 16,450   | TOTAL PERFORMING ARTS : DRAMA<br>9th Grade Academy             |
|                       | PERFORMING ARTS: AUDITORIUM / DRAMA     |                               |          |                               |                    |                                |             |                              |          |                                                                |
|                       | Main Building - 115 Greenough           |                               |          |                               |                    |                                |             |                              |          | PERFORMING ARTS : AUD. / DRAMA                                 |
| J.10                  | Auditorium                              | 6,210                         | 1        | 6,210                         | Existing to remain | 6,210                          | 1           | 6,210                        | 1        | see BHS Existing Auditorium / Drama program space              |
|                       | Balcony                                 | 2,210                         | 1        | 2,210                         | renovate           | 2,210                          |             | 2,210                        |          | MSSA based on 750 seats max.                                   |
|                       | Tech-Balcony                            | 105                           | 2        | 210                           | 105                | 2                              | 210         | 105                          | 2        | renovate balcony space                                         |
| J.20                  | Stage                                   | 2,380                         | 1        | 2,380                         | 2,380              | 1                              | 2,380       | 2,380                        | 1        | catwalk at Fly-loft Rigging                                    |
|                       | Stage Office                            | 70                            | 1        | 70                            | 70                 | 1                              | 70          | 70                           | 1        |                                                                |
|                       | Stage Shower                            | 20                            | 1        | 20                            | 20                 | 1                              | 20          | 20                           | 1        |                                                                |
| J.30                  | Auditorium Storage                      | confirm storage               |          |                               |                    |                                |             |                              |          | confirm all existing performing arts storage; and to remain    |
| J.40                  | Make-up / Dressing Rooms                | Varies                        | 2        | 180                           | Varies             | 2                              | 180         | Varies                       | 2        |                                                                |
| J.41                  | Green Room                              | 215                           | 1        | 215                           | 215                | 1                              | 215         | 215                          | 1        |                                                                |
| J.50                  | Controls / Lighting / Projection        | 95                            | 1        | 95                            | 95                 | 1                              | 95          | 95                           | 1        |                                                                |
|                       | Scenery Workshop                        | 750                           | 1        | 750                           | 750                | 1                              | 750         | 750                          | 1        | Not included in MSSA space standards                           |
|                       | Scenery Workshop Office                 | 135                           | 2        | 270                           | 135                | 2                              | 270         | 135                          | 2        | additional program space totals                                |
| J.60                  | Black Box Theater (Rm. 323)             | 1,860                         | 1        | 1,860                         | 1,860              | 1                              | 1,860       | 1,860                        | 1        | New includes 2400 Box, 200 Controls, 200 Lighting, 200 Storage |
|                       | Black Box Control Room (Rm. 319)        | 260                           | 1        | 260                           | 260                | 1                              | 260         | 260                          | 1        |                                                                |
| J.61                  | White Box (Rm.220) Orchestra & Drama    | 1,720                         | 1        | 1,720                         | 1,720              | 1                              | 1,720       | 1,720                        | 1        | Orchestra; Drama Set-Storage; Back Stage Power                 |
| J.70                  | New Theatre 400 seat (ED Plan)          |                               |          |                               |                    |                                |             |                              |          | Education Plan                                                 |
|                       | New Theatre Stage                       |                               |          |                               |                    |                                |             |                              |          |                                                                |
|                       | New Theatre Control Rm                  |                               |          |                               |                    |                                |             |                              |          |                                                                |
|                       | New Theatre Catwalk / Lighting          |                               |          |                               |                    |                                |             |                              |          |                                                                |
|                       | New Theatre Piano Storage/ Storage      |                               |          |                               |                    |                                |             |                              |          |                                                                |

### 3. Space Summary - OPTION 4 at BHS-Greenough

| SUMMARY                                                                     |                                     | MAY 2017 ISSUE                              |          | OPTION 4<br>Stand-alone Off-Site |                          | OPTION 4A & 4C<br>BHS - Greenough |             | OPTION 4B & 4D<br>BHS-Greenough |          | Comments / Notes  |
|-----------------------------------------------------------------------------|-------------------------------------|---------------------------------------------|----------|----------------------------------|--------------------------|-----------------------------------|-------------|---------------------------------|----------|-------------------|
| group                                                                       | ROOM/TYPE                           | BHS CAMPUS<br>Existing Conditions Inventory | # OF RMS | area totals                      | ROOM<br>NFA <sup>1</sup> | # OF RMS                          | area totals | ROOM<br>NFA <sup>1</sup>        | # OF RMS | area totals       |
| <b>BROOKLINE HIGH SCHOOL</b>                                                |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| <b>DINING &amp; FOOD SERVICE</b>                                            |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| KGG                                                                         | NEW 9th Grade Academy @ 111 CYPRESS |                                             |          | 6,750                            |                          |                                   |             |                                 |          | 9th Grade Academy |
| <b>DINING &amp; FOOD SERVICE</b>                                            |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| 2700 enroll; adds 1,440 nsf per MSBA standards                              |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| existing space is not to current standards                                  |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| assume use existing; confirm location(s)                                    |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| Renovate and Reconfigure Servery                                            |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| OR New Servery/Kitchen at min. 4,600 sf to 5,000                            |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| assume renovate existing                                                    |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| per MSBA standards no added space; review with Food Service                 |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| Existing Staff Lounge; or repurpose                                         |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| <b>LIBRARY / MEDIA CENTER</b>                                               |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| 2700 enroll; adds 2,760 nsf per MSBA standards                              |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| see L9G                                                                     |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| include spaces for book collection, and quiet study rooms Small Group Rooms |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| coord and confirm with Visual Arts and Career Ed./CTE                       |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| <b>DINING &amp; FOOD SERVICE</b>                                            |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| 2700 enroll; adds 1,440 nsf per MSBA standards                              |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| existing space is not to current standards                                  |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| assume use existing; confirm location(s)                                    |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| Renovate and Reconfigure Servery                                            |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| OR New Servery/Kitchen at min. 4,600 sf to 5,000                            |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| assume renovate existing                                                    |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| per MSBA standards no added space; review with Food Service                 |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| Existing Staff Lounge; or repurpose                                         |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| <b>LIBRARY / MEDIA CENTER</b>                                               |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| 2700 enroll; adds 2,760 nsf per MSBA standards                              |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| see L9G                                                                     |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| include spaces for book collection, and quiet study rooms Small Group Rooms |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |
| coord and confirm with Visual Arts and Career Ed./CTE                       |                                     |                                             |          |                                  |                          |                                   |             |                                 |          |                   |

**LEGEND**

- 9th Grd. Acad at BHS
- Option 4
- Existing
- Option 4
- New



### 3. Space Summary - OPTION 4 at BHS-Greenough

**LEGEND**

|                      |          |          |
|----------------------|----------|----------|
| 9th Grd. Acad at BHS | Option 4 | Existing |
|                      | Option 4 | New      |

MAY 2017 Issue

**SUMMARY**

| BROOKLINE HIGH SCHOOL                             | Existing Conditions Inventory |                           | OPTION 4 Stand-alone Off-Site |                       | OPTION 4A & 4C BHS - Greenough |             | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes     |
|---------------------------------------------------|-------------------------------|---------------------------|-------------------------------|-----------------------|--------------------------------|-------------|------------------------------|----------|----------------------|
|                                                   | ROOM/TYPE                     | # OF RMS NFA <sup>1</sup> | area totals                   | ROOM NFA <sup>1</sup> | # OF RMS                       | area totals | ROOM NFA <sup>1</sup>        | # OF RMS |                      |
| <b>MEDICAL</b>                                    |                               |                           |                               |                       |                                |             |                              |          | <b>TOTAL MEDICAL</b> |
| M.9G NEW 9th Grade Academy @ 111 CYPRESS          |                               |                           |                               |                       |                                | 710         |                              |          |                      |
| <b>MEDICAL</b>                                    |                               |                           |                               |                       |                                |             |                              |          | <b>MEDICAL</b>       |
| <i>(Ltr. rooms of different sizes separately)</i> |                               |                           |                               |                       |                                |             |                              |          |                      |
| Main Building - 115 Greenough                     |                               | subtotal                  | 1,010                         |                       | Existing to remain             |             | Existing to remain           |          |                      |
| M.11 Medical Suite Toilet                         |                               | 50                        | 1                             | 50                    | 50                             | 1           | 50                           | 1        | 50                   |
| M.10 Nurse General / Waiting Room                 |                               | 580                       | 1                             | 580                   | 580                            | 1           | 580                          | 1        | 580                  |
| Nurse Waiting                                     |                               | 70                        | 1                             | 70                    | 70                             | 1           | 70                           | 1        | 70                   |
| M.12 Interview Room                               |                               |                           |                               |                       |                                |             |                              |          |                      |
| Exam Room / Resting                               |                               | Varies                    | 2                             | 220                   | Varies                         | 2           | 220                          | 2        | 220                  |
| M.13 NEW Exam/ Resting or Interview Rooms         |                               |                           |                               |                       | 100                            | 0           | 0                            | 0        | 0                    |
| M.14 Lab                                          |                               | 90                        | 1                             | 90                    | 90                             | 1           | 90                           | 1        | 90                   |
| Tappan GYM - Medical Office                       |                               |                           |                               |                       |                                |             |                              |          |                      |
| M.50 NEW Nurse Ofc for GYM-UAB                    |                               |                           |                               |                       | Medical Ofc @ UAB              |             | Medical Ofc @ UAB            |          |                      |
| UAB - Medical Office                              |                               |                           |                               |                       | 120                            | 1           | 120                          | 1        | 120                  |
| M.55 Nurse Office -UAB (Rm.23A)                   |                               |                           |                               |                       |                                |             |                              |          |                      |

### 3. Space Summary - OPTION 4 at BHS-Greenough & UAB

| SUMMARY               |                                                   | MAY 2017 Issue                           |          | OPTION 4             |                       | OPTION 4A & 4C     |                    | OPTION 4B & 4D        |                    | Comments / Notes   |                                                                                                                                                                            |
|-----------------------|---------------------------------------------------|------------------------------------------|----------|----------------------|-----------------------|--------------------|--------------------|-----------------------|--------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BROOKLINE HIGH SCHOOL |                                                   | BHS CAMPUS Existing Conditions Inventory |          | Stand-alone Off-Site |                       | BHS - Greenough    |                    | BHS-Greenough         |                    |                    |                                                                                                                                                                            |
| group                 | ROOM TYPE                                         | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals          | ROOM NFA <sup>1</sup> | # OF RMS           | area totals        | ROOM NFA <sup>1</sup> | # OF RMS           | area totals        |                                                                                                                                                                            |
| <b>ADMINISTRATION</b> |                                                   |                                          |          |                      |                       |                    |                    |                       |                    |                    |                                                                                                                                                                            |
| N.96                  | NEW 9th Grade Academy @ 111 CYPRESS               |                                          |          | 2,020                |                       |                    |                    |                       |                    |                    | TOTAL NEW ADMINISTRATION                                                                                                                                                   |
| <b>ADMINISTRATION</b> |                                                   |                                          |          |                      |                       |                    |                    |                       |                    |                    |                                                                                                                                                                            |
|                       |                                                   |                                          |          | 6,580                |                       |                    | 6,580              |                       |                    |                    | MSBA total includes ADMIN. & GUIDANCE                                                                                                                                      |
| N.10                  | Main Building - 115 Greenough                     | 500                                      | 1        | 500                  | Existing to remain    | Existing to remain | Existing to remain | Existing to remain    | Existing to remain | Existing to remain |                                                                                                                                                                            |
| N.11                  | Main Office (MSBA General Office/ Waiting)        | 350                                      | 1        | 350                  | 500                   | 1                  | 500                | 500                   | 1                  | 500                |                                                                                                                                                                            |
| N.12                  | Secretary Office                                  | 180                                      | 1        | 180                  | 350                   | 1                  | 350                | 350                   | 1                  | 350                |                                                                                                                                                                            |
| N.13                  | Registrar                                         | 150                                      | 1        | 150                  | 190                   | 1                  | 190                | 190                   | 1                  | 190                |                                                                                                                                                                            |
| N.14                  | Waiting Area                                      | 320                                      | 1        | 320                  | 150                   | 1                  | 150                | 150                   | 1                  | 150                |                                                                                                                                                                            |
| N.20                  | Teachers' Mail and Time Room                      |                                          |          |                      | 320                   | 1                  | 320                | 320                   | 1                  | 320                | confirm existing                                                                                                                                                           |
| N.21                  | Copy (MSBA Duplicating Rm)                        | 80                                       | 1        | 80                   | 80                    | 1                  | 80                 | 80                    | 1                  | 80                 |                                                                                                                                                                            |
| N.22                  | Workroom - BHS Rm.162D                            | 200                                      | 1        | 200                  | 200                   | 1                  | 200                | 200                   | 1                  | 200                |                                                                                                                                                                            |
| N.23                  | Records Storage                                   | 100                                      | 1        | 100                  | 100                   | 1                  | 100                | 100                   | 1                  | 100                |                                                                                                                                                                            |
| N.30                  | Headmasters Office                                | 390                                      | 1        | 390                  | 390                   | 1                  | 390                | 390                   | 1                  | 390                |                                                                                                                                                                            |
| N.31                  | Headmasters Secretary                             | 180                                      | 1        | 180                  | 180                   | 1                  | 180                | 180                   | 1                  | 180                |                                                                                                                                                                            |
| N.32                  | Assistant Head Masters Office - AH1               | 240                                      | 1        | 240                  | 240                   | 1                  | 240                | 240                   | 1                  | 240                |                                                                                                                                                                            |
| N.33                  | Assist. Head Masters Office -AH2 (MSBA)           |                                          |          |                      |                       |                    |                    |                       |                    |                    | Existing Dean Teams clusters include Guidance Offices; (1) Conference Rm; +/- (4) Offices and (1) Advisory Office; (6) Assoc. Dean s staff offices; (4) Rooms with B-staff |
| N.34                  | Deans Office.1                                    | 200                                      | 1        | 200                  | 200                   | 1                  | 200                | 200                   | 1                  | 200                |                                                                                                                                                                            |
|                       | Deans Office.2                                    | 240                                      | 1        | 240                  | 240                   | 1                  | 240                | 240                   | 1                  | 240                |                                                                                                                                                                            |
| N.37                  | Associate Deans Office                            | 140                                      | 2        | 280                  | 140                   | 2                  | 280                | 140                   | 2                  | 280                |                                                                                                                                                                            |
|                       | Social Worker( Rm. 317J)                          | 140                                      | 1        | 140                  | 140                   | 1                  | 140                | 140                   | 1                  | 140                |                                                                                                                                                                            |
|                       | ISS Office (Rm.313)                               | 140                                      | 1        | 140                  | 140                   | 1                  | 140                | 140                   | 1                  | 140                |                                                                                                                                                                            |
| N.38                  | Spare Office / Supervisory                        |                                          |          |                      |                       |                    |                    |                       |                    |                    |                                                                                                                                                                            |
|                       | Dean Secretary Office (217A)                      | 110                                      | 1        | 110                  | 110                   | 1                  | 110                | 110                   | 1                  | 110                |                                                                                                                                                                            |
|                       | Office                                            | 50                                       | 1        | 50                   | 50                    | 1                  | 50                 | 50                    | 1                  | 50                 |                                                                                                                                                                            |
|                       | Reception                                         | 170                                      | 1        | 170                  | 170                   | 1                  | 170                | 170                   | 1                  | 170                |                                                                                                                                                                            |
| N.40                  | African-American/Latino Scholars (Rm.167)         | 310                                      | 1        | 310                  | 310                   | 1                  | 310                | 310                   | 1                  | 310                | ED Plan pg. 59 and or Existing Rm.102                                                                                                                                      |
|                       | BRYT Offices (Rm.107 coord. Other O. 11)          |                                          |          |                      |                       |                    |                    |                       |                    |                    | Coordinate with N.80 Guidance & UAB Career                                                                                                                                 |
|                       | STEP TO SUCCESS - Career Center (Rm.163)          | 650                                      | 1        | 650                  | 650                   | 1                  | 650                | 650                   | 1                  | 650                | Used for College MCAS testing                                                                                                                                              |
|                       | METCO Office (Rm.170)                             | 630                                      | 1        | 630                  | 630                   | 1                  | 630                | 630                   | 1                  | 630                |                                                                                                                                                                            |
|                       | Admin. Conference (Rm.164)                        | 550                                      | 1        | 550                  | 550                   | 1                  | 550                | 550                   | 1                  | 550                |                                                                                                                                                                            |
|                       | Teachers Work Room                                |                                          |          |                      |                       |                    |                    |                       |                    |                    |                                                                                                                                                                            |
|                       | UAB - CE/CTE ADMIN.                               |                                          |          |                      |                       |                    |                    |                       |                    |                    |                                                                                                                                                                            |
|                       | Conference Room (Rm.29C)                          | 170                                      | 1        | 170                  | 170                   | 1                  | 170                | 170                   | 1                  | 170                |                                                                                                                                                                            |
|                       | Nurse and Visual Arts Offices (Rm.23A and Rm.23B) | 120                                      | 2        | 240                  | 120                   | 2                  | 240                | 120                   | 2                  | 240                |                                                                                                                                                                            |

**LEGEND**

|                                                                                                                                                  |                                                                                                                                      |                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> 9th Grd. Acad at BHS | <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Option 4 | <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Existing |
| <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Option 4             | <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> New      |                                                                                                                                      |

### 3. Space Summary - OPTION 4 at BHS-Greenough & UAB

**LEGEND**

- 9th Grd. Acad at BHS
- Option 4
- Existing
- New

MAY 2017 ISSUE

**SUMMARY**

| group                               | ROOM TYPE                                                         | BHS CAMPUS Existing Conditions Inventory |          | OPTION 4 Stand-alone Off-Site |                       | OPTION 4A & 4C BHS - Greenough |                         | OPTION 4B & 4D BHS-Greenough |          | Comments / Notes |                                                       |
|-------------------------------------|-------------------------------------------------------------------|------------------------------------------|----------|-------------------------------|-----------------------|--------------------------------|-------------------------|------------------------------|----------|------------------|-------------------------------------------------------|
|                                     |                                                                   | ROOM NFA <sup>1</sup>                    | # OF RMS | area totals                   | ROOM NFA <sup>1</sup> | # OF RMS                       | area totals             | ROOM NFA <sup>1</sup>        | # OF RMS |                  | area totals                                           |
| <b>ADMIN. GUIDANCE</b>              |                                                                   |                                          |          |                               |                       |                                |                         |                              |          |                  |                                                       |
| N.9G                                | NEW 9th Grade Academy @ 111 CYPRESS                               |                                          |          |                               | total                 | 1,370                          |                         |                              |          |                  | TOTAL ADMIN. GUIDANCE                                 |
|                                     |                                                                   |                                          |          |                               |                       |                                |                         |                              |          |                  | 9th Grade Academy & BHS-Greenough                     |
| <b>ADMIN. GUIDANCE</b>              |                                                                   |                                          |          |                               |                       |                                |                         |                              |          |                  |                                                       |
|                                     |                                                                   |                                          |          | 3,990                         |                       |                                | 3,990                   |                              | 3,990    |                  | see MSBA ADMIN & GUIDANCE                             |
|                                     | Main Building - 115 Greenough                                     |                                          |          |                               |                       |                                | Existing to remain      | Existing to remain           |          |                  |                                                       |
| N.50                                | Conference Room (MSBA Admin & Guid.)                              | 270                                      | 1        | 270                           | 270                   | 1                              | 270                     | 270                          | 1        | 270              |                                                       |
| N.60                                | Guidance Waiting Rm                                               |                                          | 10       |                               |                       |                                |                         |                              |          |                  |                                                       |
| N.61                                | Guidance -Office                                                  | 140                                      | 1        | 140                           | 140                   | 1                              | 140                     | 140                          | 1        | 140              |                                                       |
| N.62                                | PSS Directors Office                                              | 250                                      | 1        | 250                           | 250                   | 1                              | 250                     | 250                          | 1        | 250              | Existing Guidance Office w/-14;                       |
|                                     | PSS Office                                                        | 130                                      | 2        | 260                           | 130                   | 2                              | 260                     | 130                          | 2        | 260              | (1) Main Central Rm. OR per Team = (4) at 250 w/TEAMS |
|                                     | Psychologist Office                                               | 210                                      | 1        | 210                           | 210                   | 1                              | 210                     | 210                          | 1        | 210              |                                                       |
|                                     | Office                                                            | 130                                      | 4        | 520                           | 130                   | 4                              | 520                     | 130                          | 4        | 520              |                                                       |
|                                     | Office                                                            | 420                                      | 1        | 420                           | 420                   | 1                              | 420                     | 420                          | 1        | 420              |                                                       |
| <b>Social and Emotional Support</b> |                                                                   |                                          |          |                               |                       |                                |                         |                              |          |                  |                                                       |
| N.70                                | Substance/Violence Prevention Counsel/ Office Interview @ Nursing |                                          | 3        | 380                           |                       |                                | Coord. With A.18 & A.19 |                              |          |                  | adjacency with Nurse/Medical Office                   |
|                                     |                                                                   |                                          |          |                               | Varies                | 3                              | 380                     | Varies                       | 3        | 380              |                                                       |
| N.75                                | Guidance - Internship Office (Rm.160L)                            | 140                                      | 1        | 140                           | 140                   | 1                              | 140                     | 140                          | 1        | 140              |                                                       |
|                                     | Guidance - Internship Center (160M)                               | 220                                      | 1        | 220                           | 220                   | 1                              | 220                     | 220                          | 1        | 220              |                                                       |
| N.80                                | Guidance Office (Rm.279) MSBA Career Ctr                          | 620                                      | 1        | 620                           | 620                   | 1                              | 620                     | 620                          | 1        | 620              |                                                       |
| N.81                                | Guidance Office - Small (Rm.280)                                  | 110                                      | 1        | 110                           | 110                   | 1                              | 110                     | 110                          | 1        | 110              | Expand Utiliz. @. 168 = 1                             |
| <b>UAB - CE/CTE ADMIN.</b>          |                                                                   |                                          |          |                               |                       |                                |                         |                              |          |                  |                                                       |
| N.90                                | Career Ed (Rm.23)                                                 | 350                                      | 1        | 350                           | 350                   | 1                              | 350                     | 350                          | 1        | 350              |                                                       |
|                                     | Guidance Storeroom                                                |                                          |          |                               |                       |                                |                         |                              |          |                  |                                                       |
| N.91                                | Guidance Records Storage                                          | 100                                      | 1        | 100                           | 100                   | 1                              | 100                     | 100                          | 1        | 100              | Central Secure Record Storage OR per TEAM             |

### 3. Space Summary - OPTION 4 at BHS-Greenough, Tappan Gym & UAB

| SUMMARY                                          |                                          | MAY 2017 Issue |          | OPTION 4    |                      | OPTION 4A & 4C  |                         | OPTION 4B & 4D              |             | Comments / Notes                                                                                                               |
|--------------------------------------------------|------------------------------------------|----------------|----------|-------------|----------------------|-----------------|-------------------------|-----------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------|
| group                                            | ROOM/TYPE                                | ROOM N/A       | # OF RMS | area totals | Stand-alone Off-Site | BHS - Greenough | BHS w/Renovated Science | BHS w/New Science STEM Wing | area totals |                                                                                                                                |
| <b>BROOKLINE HIGH SCHOOL</b>                     |                                          |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
| OTHER                                            |                                          |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
| 0.95                                             | NEW 9th Grade Academy @ 111 CYPRESS      |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
| OTHER                                            |                                          |                |          | 4,950       |                      |                 |                         |                             | 5,010       |                                                                                                                                |
| 0.01                                             | Security Office                          |                |          |             |                      |                 |                         |                             |             | at BHS Main Office or Asst. Head                                                                                               |
| 0.02                                             | After-School                             |                |          |             |                      |                 |                         |                             |             | confirm needs Office, Storage or Other                                                                                         |
| 0.03                                             | Summer School / Summer Programs          |                |          |             |                      |                 |                         |                             |             | confirm needs Office, Storage or Other                                                                                         |
| 0.00                                             | Main Building - 115 Greenough            |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
| 0.00                                             | Student Newspaper (Rm. 385A)             |                | 570      | 1           | 570                  | 1               | 570                     | 1                           | 570         | Coord. With OPTIONS 4A/4C and 4B/4D                                                                                            |
| 0.10                                             | BEEP (Rm.101)                            |                | 770      | 1           | 770                  | 1               | 770                     | 1                           | 770         | Re-Plan with A.18 & A.19                                                                                                       |
| 0.11                                             | BEEP Rm.107 (or BRYT)                    |                | 720      | 1           | 720                  | 1               | 720                     | 1                           | 720         | Coord. With OPTIONS 4A/4C and 4B/4D                                                                                            |
| 0.20                                             | Alumnt. Center (Rm.165) and 21st Century |                | 460      | 1           | 460                  | 1               | 460                     | 1                           | 460         | combine w/21st Century Rm; confirm #of occ.; Add display casework                                                              |
| 0.30                                             | (Rm.168B)                                |                | 300      | 1           | 300                  | 1               | 300                     | 1                           | 300         | combine w/Alum. Center and 21st Century                                                                                        |
| 0.50                                             | Graphic Arts / BHS Copy Center           |                | 960      | 1           | 960                  | 1               | 960                     | 1                           | 960         | Coord. With OPT. 4B/4D and relocate BHS and District Facility, locate w/ delivery access; confirm size for equip./print volume |
| 0.60                                             | Adult Ed Classroom (Rm.04)               |                | 770      | 1           | 770                  | 1               | 770                     | 1                           | 770         | Coord. With OPTIONS 4A/4C and 4B/4D and relocate Adult Ed.                                                                     |
| 0.61                                             | Adult Ed Office (Rm.109B)                |                | 140      | 1           | 140                  | 1               | 140                     | 1                           | 140         | Adult Ed. Office Not Required, combine with 0.60                                                                               |
| 0.70                                             | BEU Office (Rm.004A)                     |                | 260      | 1           | 260                  | 1               | 260                     | 1                           | 260         | Coord. With OPTIONS 4A/4C and 4B/4D and relocate (1) staff and (1) secretary                                                   |
| 0.90                                             | PEER Leadership                          |                |          |             |                      |                 |                         |                             |             | Expand JH1 @ 2.33 = 3; uses CR's Z-Block; confirm or provide dedicated space                                                   |
|                                                  | UAB - 46 Tappan                          |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
|                                                  | BIG - Brookline Interactive Group (N/A)  |                | 4,450    | 1           |                      |                 |                         |                             |             | NOT INCLUDED; existing to remain                                                                                               |
| <b>CUSTODIAL &amp; MAINTENANCE (BHS/UAB/GYM)</b> |                                          |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
|                                                  |                                          |                |          |             |                      |                 | 12,550                  |                             | 12,550      |                                                                                                                                |
|                                                  | Main Building - 115 Greenough            |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
|                                                  | Custodian's Office (Lounge)              |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
|                                                  | Custodian's Workshop                     |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
|                                                  | Custodian's Storage                      |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
|                                                  | Recycling Room / Trash                   |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
|                                                  | Receiving and General Supply             |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
|                                                  | Storeroom                                |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
|                                                  | Network / Telecom Room                   |                |          |             |                      |                 |                         |                             |             |                                                                                                                                |
|                                                  | UAB                                      |                |          |             |                      |                 |                         |                             |             | Central Plant MEP NOT INCLUDED                                                                                                 |
|                                                  | Central Plant not in NSF                 |                |          |             |                      |                 |                         |                             |             | Confirm w/ BHS Bldg. Dept.                                                                                                     |
|                                                  | Tappan GYM                               |                |          |             |                      |                 |                         |                             |             | Confirm w/ BHS Bldg. Dept.                                                                                                     |
|                                                  |                                          |                |          |             |                      |                 |                         |                             |             | Kirrane Pool NOT INCLUDED                                                                                                      |

**LEGEND**

|                                                                                                                                                  |                                                                                                                                      |                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <span style="background-color: #e0e0e0; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> 9th Grd. Acad at BHS | <span style="background-color: #d9ead3; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Option 4 | <span style="background-color: #f4cccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Existing |
|                                                                                                                                                  | <span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Option 4 | <span style="background-color: #f4cccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> New      |

## 4. Development and Evaluation of Alternatives

|                                                                                                      |               |
|------------------------------------------------------------------------------------------------------|---------------|
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| Comparison Extent of Intervention                                                                    |               |
| Analysis of Preliminary Massing Options                                                              |               |
| <b>OPTION 4 - BHS Expansion</b>                                                                      | 4.189 - 4.190 |
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| Cypress Building over MBTA to Tappan Street with BHS Science Renovation and (5) Classroom Addition   |               |
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| Cypress Building over MBTA to Tappan Street with BHS New STEM-Wing Addition and 3rd Floor Renovation |               |
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| BHS STEM-Wing Addition & 3rd Floor Renovations                                                       |               |
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| New Cypress Building with Plaza                                                                      |               |
| <b>Option 4C &amp; 4D</b>                                                                            | 4.206 - 4.207 |
| New Cypress Building over MBTA with Tappan St. Entry                                                 |               |

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## 4. Development and Evaluation of Alternatives

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|                                                                                                                         |                      |
|-------------------------------------------------------------------------------------------------------------------------|----------------------|
| <b>OPTIONAL PROJECTS</b>                                                                                                | <b>4.209</b>         |
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| <b>Tappan Gym - Option 2 Moderate Expansion Competition &amp; Practice Gyms</b>                                         | <b>4.214 - 4.217</b> |
| (Note: part of BHS Option 2 State Standards)                                                                            |                      |
| <b>Tappan Gym - Option 2.1 Min.Moderate Expansion with Practice Gym Only</b>                                            | <b>4.218 - 4.221</b> |
| <b>Tappan Gym Option 3 Education Plan with Field House (Note: part of BHS Option 3 Education Plan)</b>                  | <b>4.222 - 4.225</b> |
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| <b>Cypress Park Option 3 Field and Playground Renovation with Diagonal Parking</b>                                      | <b>4.231</b>         |
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## 4. Option 1 | Enrollment Accommodation

**Existing Area to Remain  
at BHS Greenough Building**  
294,310 sf

**New Construction Area  
at BHS Greenough Building**  
165,000 sf

**Total Area  
at BHS Greenough Building**  
459,310 sf

**Total Project Cost**  
\$ 181,572,560

Option 1 Enrollment Accommodation proposes new construction at the corner of Greenough Street and Tappan Street. The site is currently used for a small parking area adjacent to the Roberts Wing of the existing main BHS academic building. The Roberts Wing and a portion of the center building of the Greenough Building are demolished, with new construction fully utilizing the corner site and extending around the central building into the Courtyard.

The First Floor of the new addition serves school-wide community programs. The expansion of the Cafeteria into the new wing offers views to the exterior and more visibility from the school entrance. A new Culinary Arts Kitchen and Café located near the school entrance enhances the program by providing the opportunity to serve the public. The MLK room is reconstructed adjacent to and accessible to the Courtyard. A new Chorus Room, White Box, and Gallery support the performance and visual arts curriculum. Teacher planning areas, administrative offices, and collaborative space in an atrium encourage small and large group learning, and informal interactions.

Twenty-four new Science Classrooms/ Labs and Preparation Rooms are stacked in two groups of four over the three upper floors of the addition. This arrangement offers the opportunity for collaboration between adjacent science classrooms, while the proximity of science classrooms to other classrooms promotes a more interdisciplinary curriculum. With all science classrooms relocated to new science classrooms in the new addition, the existing science classrooms are renovated as classrooms.

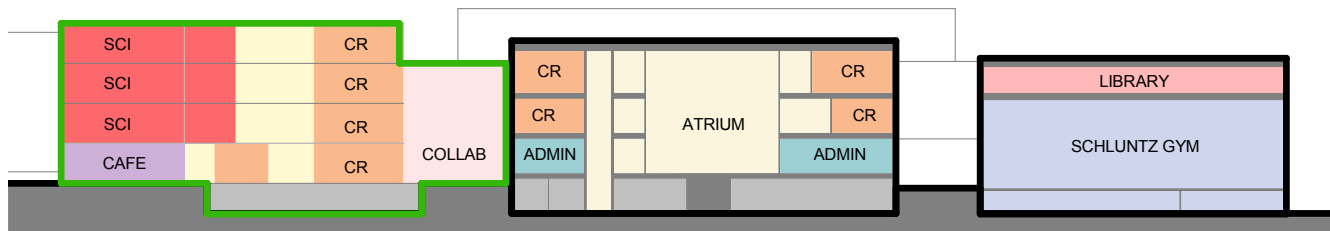
Classrooms in the new addition accommodate the enrollment growth. Offices for Deans Teams, department offices, and teacher planning areas are included on each floor level of the addition.

The Schluntz Gym and locker rooms remain in use for athletic programs. An expanded Library relocates to the renovated Third Floor of the Schluntz Gym building.

# 4. Option 1 | Enrollment Accommodation



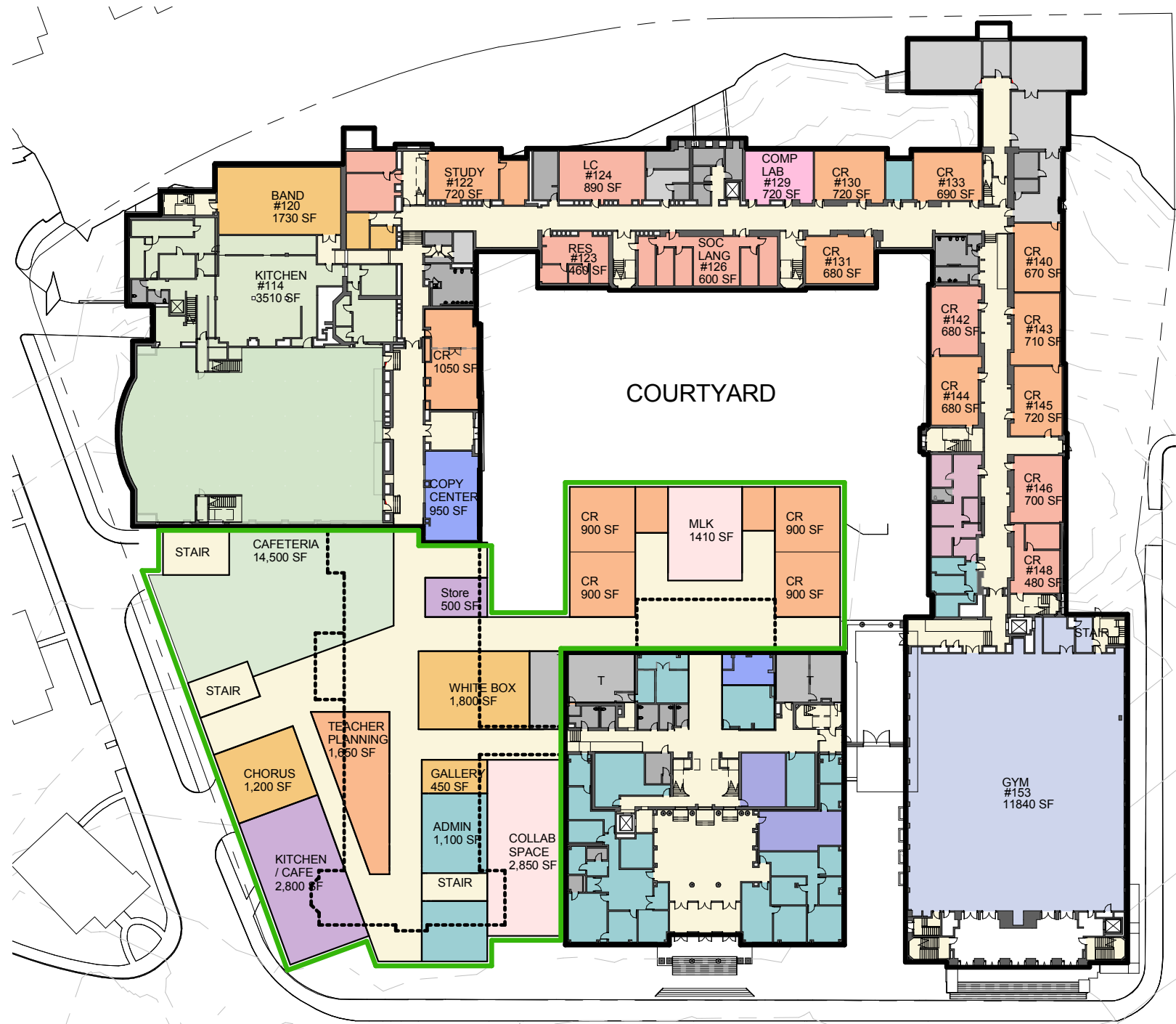
Massing



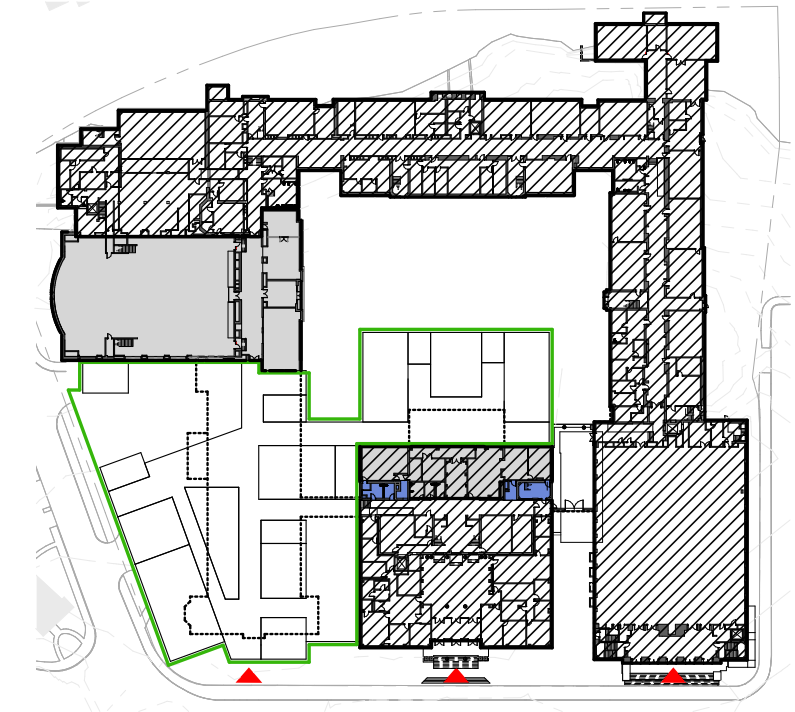
Section



4. Option 1 | Enrollment Accommodation



First Floor - Program

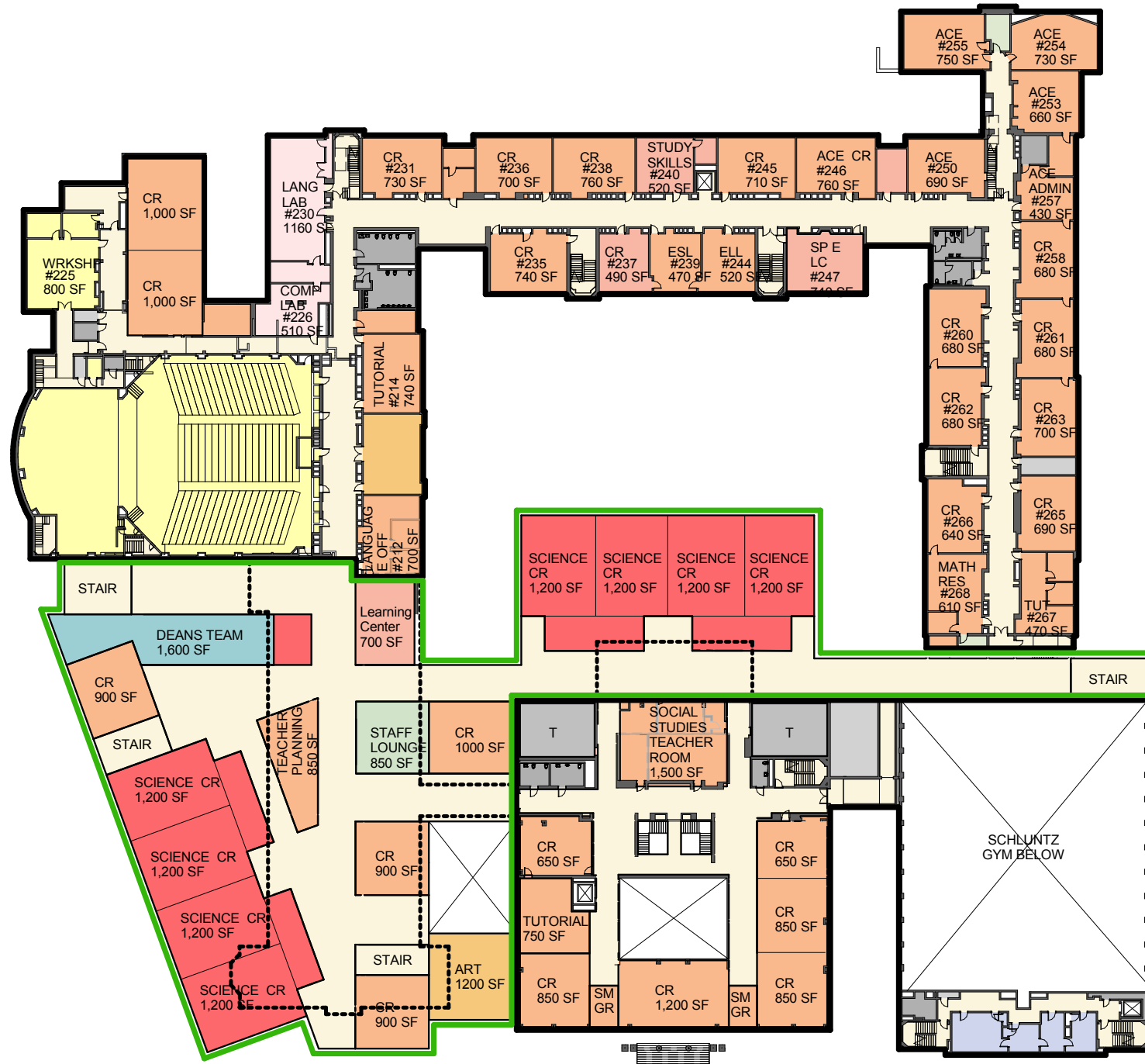


First Floor - Diagram of Intervention

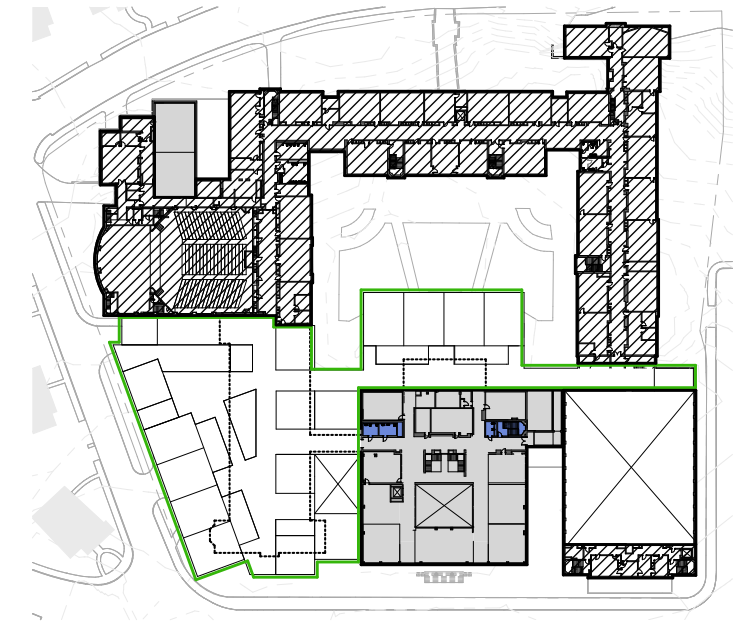
- |                                                                                                                                                      |                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Administration & Guidance   | <span style="display:inline-block; width:15px; border-bottom:1px dashed black;"></span> Outline Existing to be Demolished                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Art & Music                    | <span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span> Existing to Remain                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:yellow; border:1px solid black;"></span> Auditorium & Drama             | <span style="display:inline-block; width:15px; height:15px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); border:1px solid black;"></span> Light Renovation at Existing |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightyellow; border:1px solid black;"></span> Circulation               | <span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black;"></span> Code Compliance Renovation                                                                              |
| <span style="display:inline-block; width:15px; height:15px; background-color:pink; border:1px solid black;"></span> Common Shared                    | <span style="display:inline-block; width:15px; height:15px; background-color:grey; border:1px solid black;"></span> Intensive Renovation                                                                                    |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightorange; border:1px solid black;"></span> Core Academic             | <span style="display:inline-block; width:15px; height:15px; border:2px solid green;"></span> New Construction                                                                                                               |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightgrey; border:1px solid black;"></span> Custodial & Maintenance     |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightgreen; border:1px solid black;"></span> Dining & Food Service      |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Health & Physical Education |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightpink; border:1px solid black;"></span> Media Center                |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightpurple; border:1px solid black;"></span> Medical                   |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Other                       |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightred; border:1px solid black;"></span> Science                      |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightorange; border:1px solid black;"></span> Special Education         |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightgrey; border:1px solid black;"></span> Support                     |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightpurple; border:1px solid black;"></span> Vocations & Technology    |                                                                                                                                                                                                                             |



### 4. Option 1 | Enrollment Accommodation



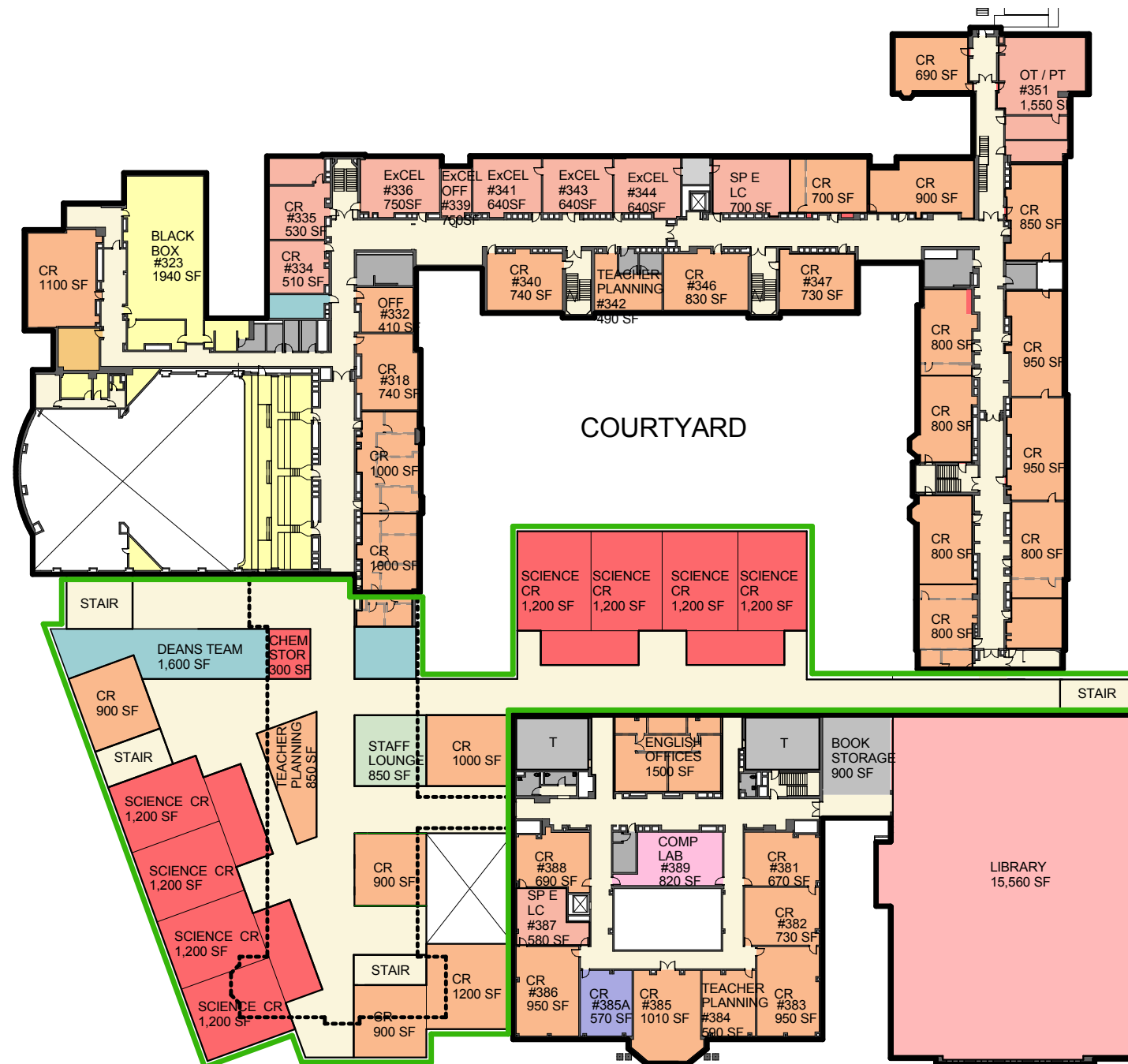
Second Floor - Program



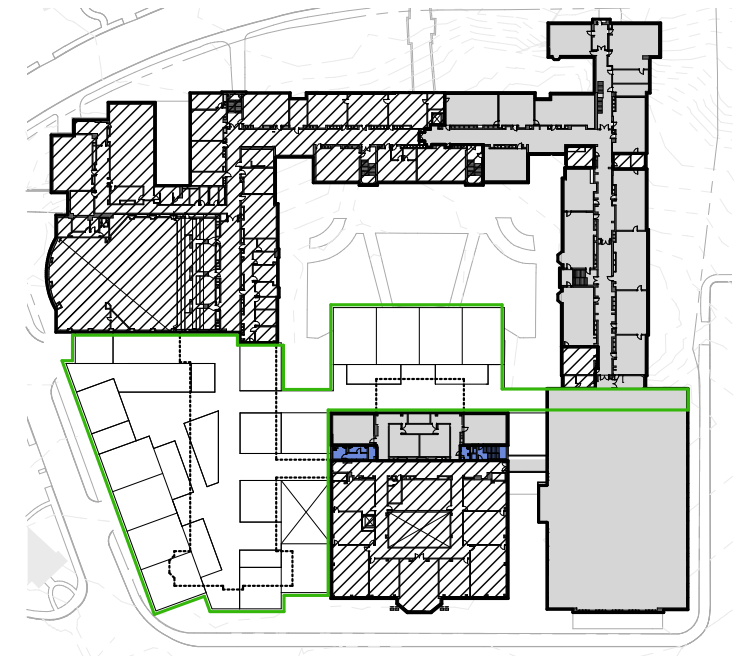
Second Floor - Diagram of Intervention

- |                             |                                   |
|-----------------------------|-----------------------------------|
| Administration & Guidance   | Outline Existing to be Demolished |
| Art & Music                 | Existing to Remain                |
| Auditorium & Drama          | Light Renovation at Existing      |
| Circulation                 | Code Compliance Renovation        |
| Common Shared               | Intensive Renovation              |
| Core Academic               | New Construction                  |
| Custodial & Maintenance     |                                   |
| Dining & Food Service       |                                   |
| Health & Physical Education |                                   |
| Media Center                |                                   |
| Medical                     |                                   |
| Other                       |                                   |
| Science                     |                                   |
| Special Education           |                                   |
| Support                     |                                   |
| Vocations & Technology      |                                   |

### 4. Option 1 | Enrollment Accommodation



Third Floor - Program



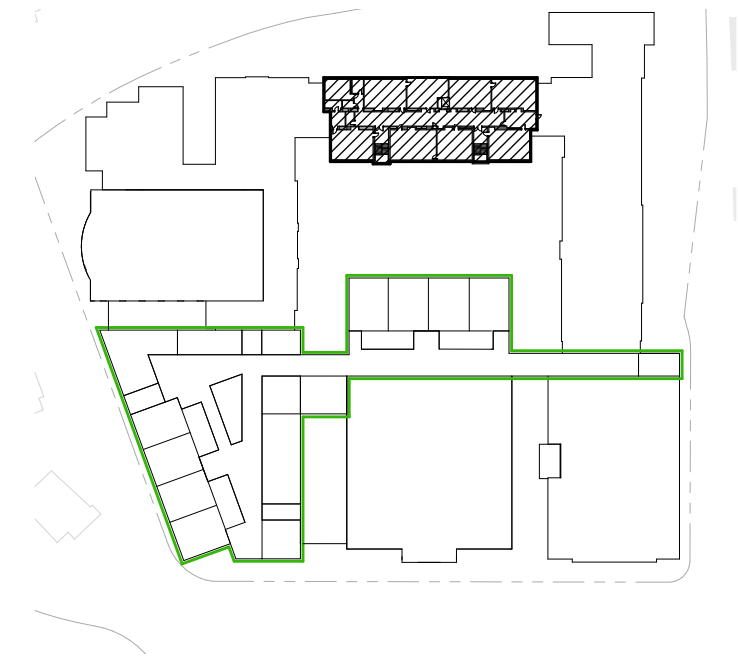
Third Floor - Diagram of Intervention

- |                             |                                   |
|-----------------------------|-----------------------------------|
| Administration & Guidance   | Outline Existing to be Demolished |
| Art & Music                 | Existing to Remain                |
| Auditorium & Drama          | Light Renovation at Existing      |
| Circulation                 | Code Compliance Renovation        |
| Common Shared               | Intensive Renovation              |
| Core Academic               | New Construction                  |
| Custodial & Maintenance     |                                   |
| Dining & Food Service       |                                   |
| Health & Physical Education |                                   |
| Media Center                |                                   |
| Medical                     |                                   |
| Other                       |                                   |
| Science                     |                                   |
| Special Education           |                                   |
| Support                     |                                   |
| Vocations & Technology      |                                   |

### 4. Option 1 | Enrollment Accommodation



Fourth Floor - Program



Fourth Floor - Diagram of Intervention

- |                                                                                                                                                      |                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Administration & Guidance   | <span style="display:inline-block; width:15px; border-bottom:1px dashed black;"></span> Outline Existing to be Demolished                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Art & Music                    | <span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span> Existing to Remain                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:yellow; border:1px solid black;"></span> Auditorium & Drama             | <span style="display:inline-block; width:15px; height:15px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); border:1px solid black;"></span> Light Renovation at Existing |
| <span style="display:inline-block; width:15px; height:15px; background-color:yellow; border:1px solid black;"></span> Circulation                    | <span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black;"></span> Code Compliance Renovation                                                                              |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightpink; border:1px solid black;"></span> Common Shared               | <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> Intensive Renovation                                                                                    |
| <span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Core Academic                  | <span style="display:inline-block; width:15px; height:15px; border:2px solid green;"></span> New Construction                                                                                                               |
| <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> Custodial & Maintenance          |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightgreen; border:1px solid black;"></span> Dining & Food Service      |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightblue; border:1px solid black;"></span> Health & Physical Education |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightpink; border:1px solid black;"></span> Media Center                |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightpurple; border:1px solid black;"></span> Medical                   |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black;"></span> Other                            |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span> Science                           |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:lightorange; border:1px solid black;"></span> Special Education         |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:gray; border:1px solid black;"></span> Support                          |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:purple; border:1px solid black;"></span> Vocations & Technology         |                                                                                                                                                                                                                             |

## 4. Option 2 | State Standards

**Existing to Remain  
at BHS Greenough Building**  
242,280 sf

**New Construction  
at BHS at Greenough Building**  
228,690 sf

**Total Area  
at BHS Greenough Building**  
470,970 sf

**Total Project Cost**  
\$ 212,261,728

**For additional State Standards  
at Tappan Gym and the Unified  
Arts Building (UAB) see  
OPTIONAL PROJECTS**

**Renovation at Tappan Gym  
(Option 2)**  
60,330 sf

**New Construction at Tappan  
Gym (Option 2)**  
49,300 sf

**Total Project Cost  
with Tappan Gym (Option 2)**  
\$ 271,178,244

Option 2 enlarges the amount of new construction at the Greenough Street main academic building beyond the additions proposed in Option 1. The Option 1 additions are incorporated into Option 2, with new construction also replacing the Schluntz Gym wing. With increased new construction, Option 2 achieves more of the Ed Plan and brings more of the academic building into conformance with Massachusetts High School standards than Option 1.

Option 2 new construction is proposed at the corner of Greenough Street and Tappan Street. The site is currently used for a small parking area adjacent to the Roberts Wing of the existing main BHS academic building. The Roberts Wing and a portion of the center building of the Greenough Building are demolished, with a four-story addition fully utilizing the corner site and extending around the central building into the Courtyard. The Schluntz Gym is demolished and replaced with a four-story addition that completely fills the site at the corner of Greenough Street and Lowell Road. Vehicular access into the courtyard is located on Lowell Road.

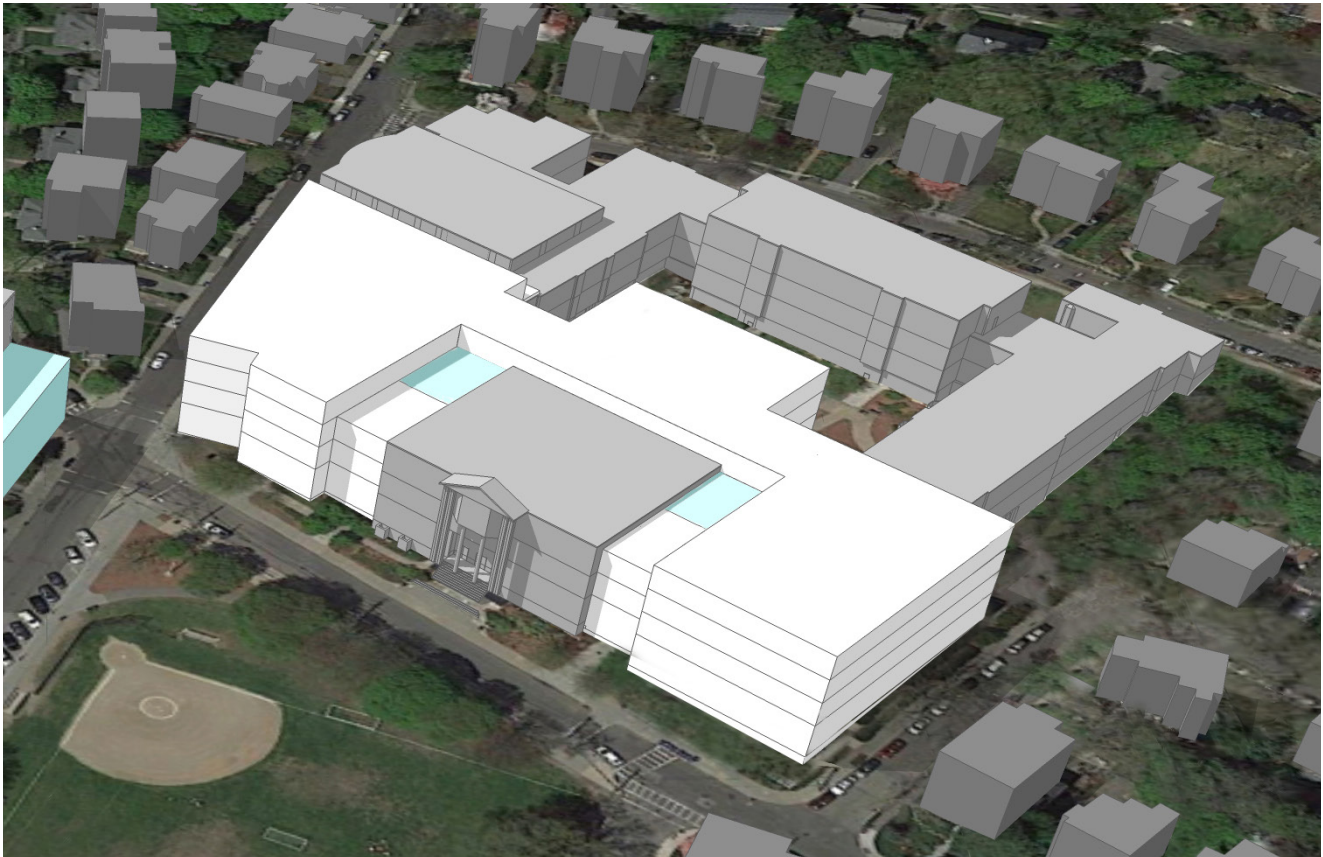
The First Floor of Option 2 supports school-wide community programs. At the Roberts Wing addition, the expansion of the Cafeteria into the new wing offers views to the exterior and more visibility from the school entrance. A new Culinary Arts Kitchen and Café located near the school entrance enhances the program by providing the opportunity to serve the public. The MLK room is reconstructed adjacent to and accessible to the Courtyard. A new Chorus Room, White Box, and Gallery support the performance and visual arts curriculum. Teacher planning areas, administrative offices, and collaborative space in an atrium encourage small and large group learning, and informal interactions. Mirroring the Roberts Wing, at the former Schluntz Gym wing, another atrium collaborative space is proposed, adjacent to a Multi-Use Large Group room. Double-height Dance Studio and Black Box Theater spaces enlarge and upgrade the existing facilities for these programs.

Twenty-four new Science Classrooms/ Labs and Preparation Rooms are stacked in two groups of four over the three upper floors of the addition. This arrangement offers the opportunity for collaboration between adjacent science classrooms, while the proximity of science classrooms to other classrooms promotes a more interdisciplinary curriculum. With all science classrooms relocated to new science classrooms in the new addition, the existing science classrooms are renovated as classrooms.

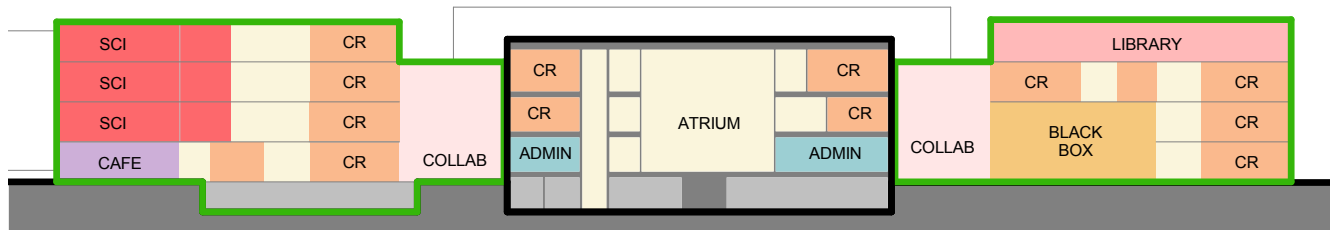
Option 2 classrooms in the new additions accommodate the enrollment growth. Offices for Deans Teams, department offices, and teacher planning areas are included on each floor level of the addition. At the former Schluntz Gym wing, Maker Spaces are located on each of two floors. An expanded Library space occupies the entire Third Floor of the new addition on the former Schluntz Gym wing.

In order to accommodate the full program space needs the renovation and expansion of the Tappan Gym Option 2, providing competition and practice gym facilities, must be included, as reflected in the project costs. Refer to the Optional Projects section of this report.

## 4. Option 2 | State Standards



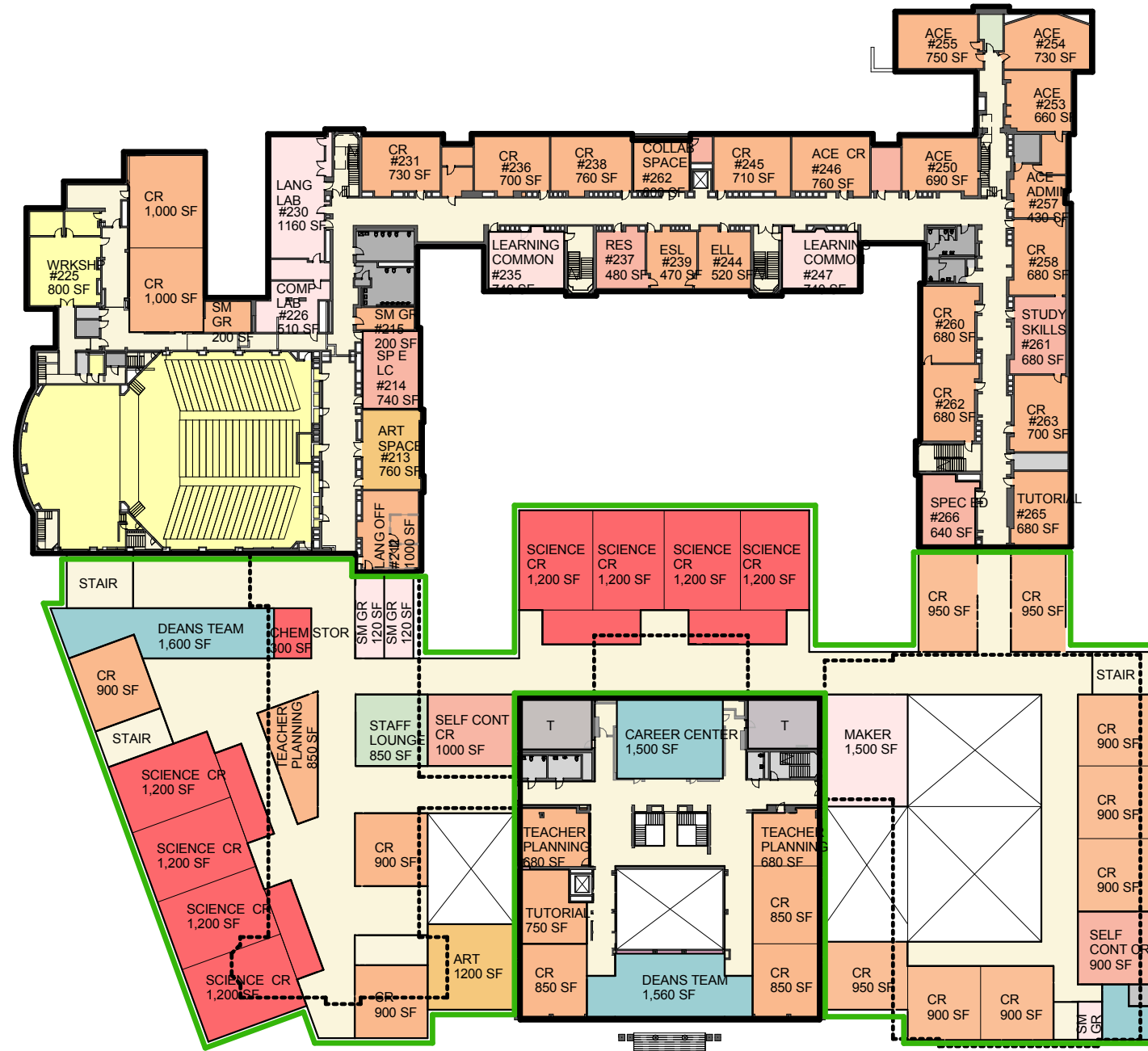
Massing



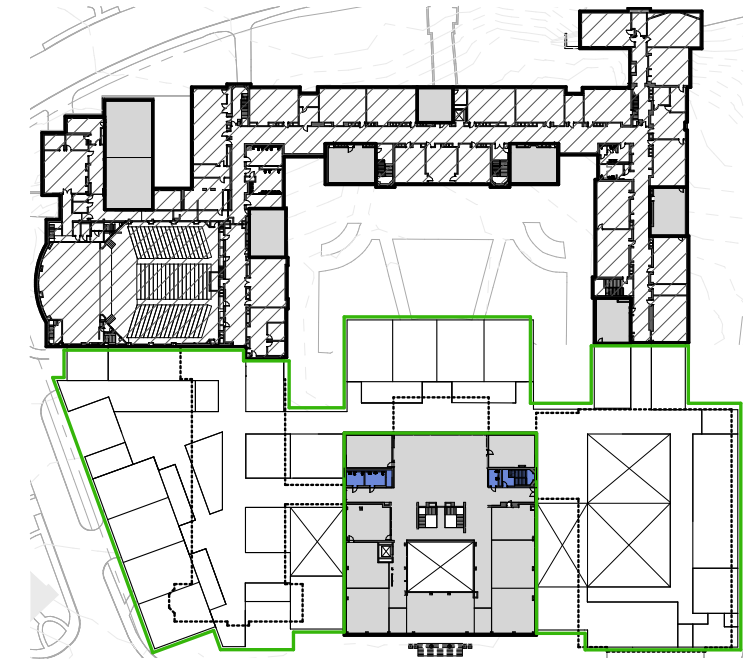
Section



### 4. Option 2 | State Standards



Second Floor - Program

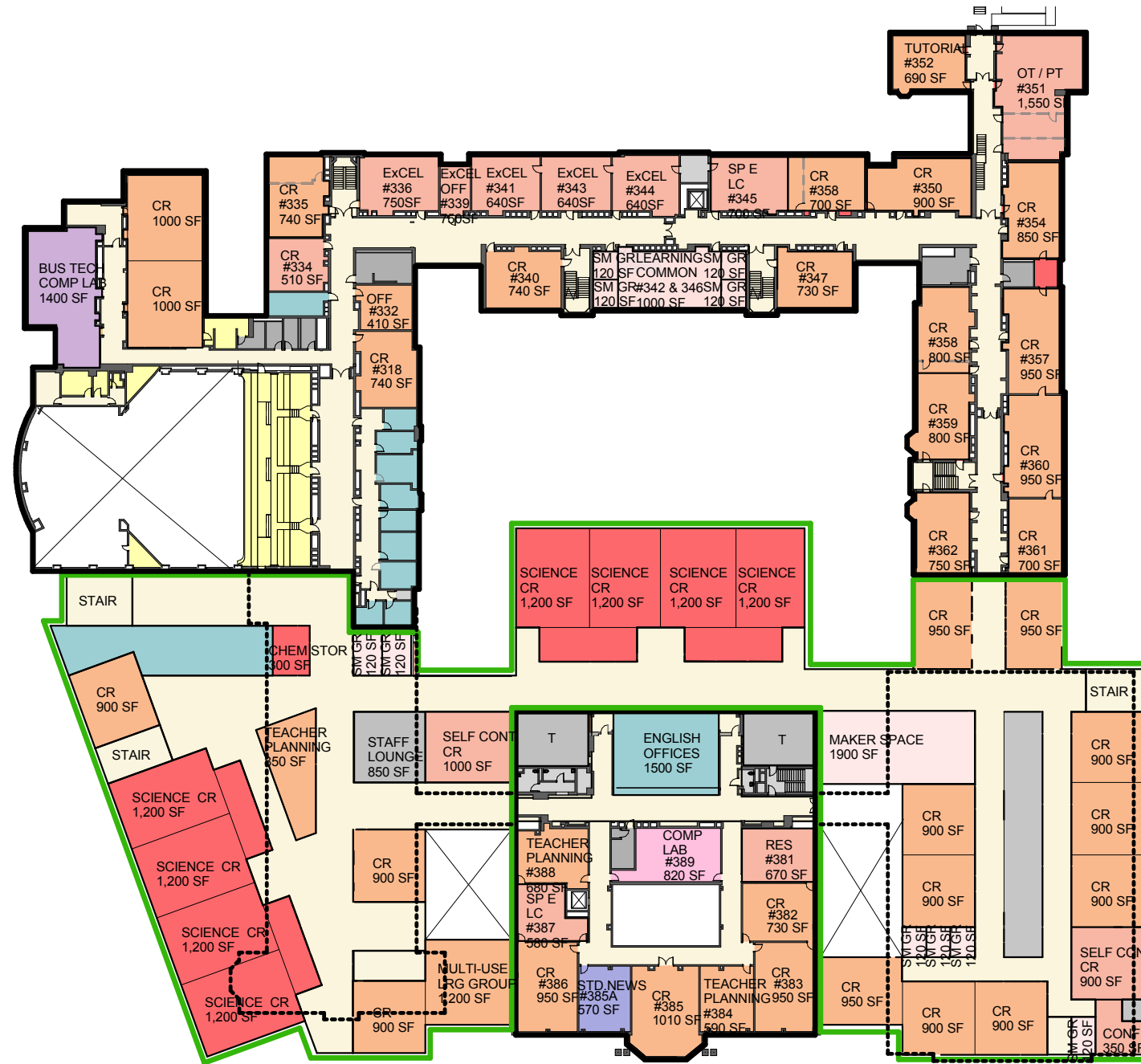


Second Floor - Diagram of Intervention

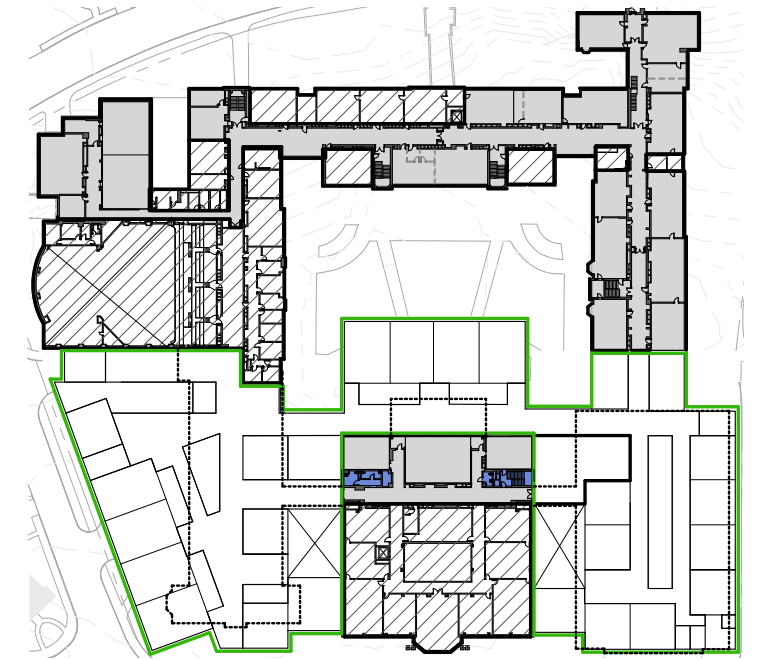
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|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Administration & Guidance   | <span style="display:inline-block; width:15px; border-top:1px dashed black;"></span> Outline Existing to be Demolished                            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFD700; border:1px solid black;"></span> Art & Music                 | <span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span> Existing to Remain                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFFF00; border:1px solid black;"></span> Auditorium & Drama          | <span style="display:inline-block; width:15px; height:15px; border:1px dashed black;"></span> Light Renovation at Existing                        |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFFACD; border:1px solid black;"></span> Circulation                 | <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Code Compliance Renovation |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFB6C1; border:1px solid black;"></span> Common Shared               | <span style="display:inline-block; width:15px; height:15px; background-color:#808080; border:1px solid black;"></span> Intensive Renovation       |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFA07A; border:1px solid black;"></span> Core Academic               | <span style="display:inline-block; width:15px; height:15px; border:2px solid green;"></span> New Construction                                     |
| <span style="display:inline-block; width:15px; height:15px; background-color:#A9A9A9; border:1px solid black;"></span> Custodial & Maintenance     |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#90EE90; border:1px solid black;"></span> Dining & Food Service       |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Health & Physical Education |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF69B4; border:1px solid black;"></span> Media Center                |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF6347; border:1px solid black;"></span> Medical                     |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#4169E1; border:1px solid black;"></span> Other                       |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF0000; border:1px solid black;"></span> Science                     |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF8C00; border:1px solid black;"></span> Special Education           |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#808080; border:1px solid black;"></span> Support                     |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#9370DB; border:1px solid black;"></span> Vocations & Technology      |                                                                                                                                                   |



4. Option 2 | State Standards



Third Floor - Program



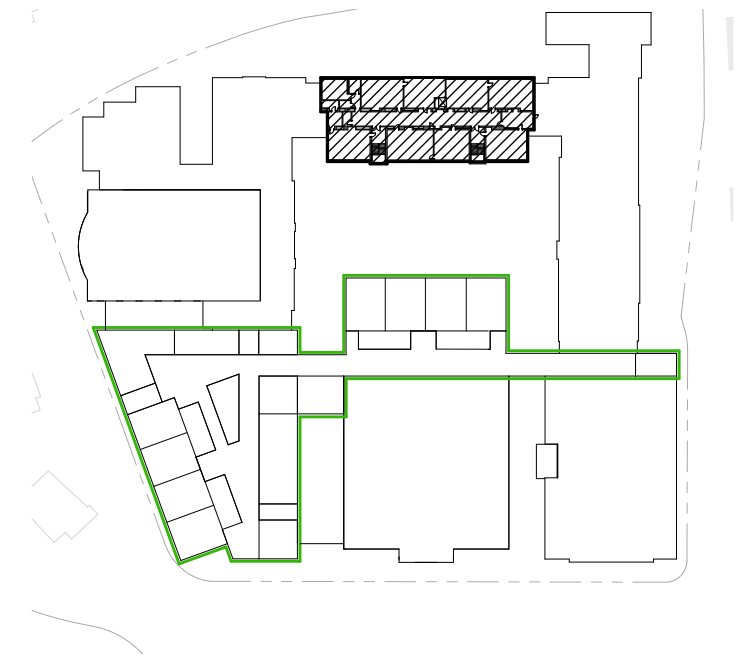
Third Floor - Diagram of Intervention

- |                             |                                   |
|-----------------------------|-----------------------------------|
| Administration & Guidance   | Outline Existing to be Demolished |
| Art & Music                 | Existing to Remain                |
| Auditorium & Drama          | Light Renovation at Existing      |
| Circulation                 | Code Compliance Renovation        |
| Common Shared               | Intensive Renovation              |
| Core Academic               | New Construction                  |
| Custodial & Maintenance     |                                   |
| Dining & Food Service       |                                   |
| Health & Physical Education |                                   |
| Media Center                |                                   |
| Medical                     |                                   |
| Other                       |                                   |
| Science                     |                                   |
| Special Education           |                                   |
| Support                     |                                   |
| Vocations & Technology      |                                   |

4. Option 2 | State Standards



Fourth Floor - Program



Fourth Floor - Diagram of Intervention

- |                             |                                   |
|-----------------------------|-----------------------------------|
| Administration & Guidance   | Outline Existing to be Demolished |
| Art & Music                 | Existing to Remain                |
| Auditorium & Drama          | Light Renovation at Existing      |
| Circulation                 | Code Compliance Renovation        |
| Common Shared               | Intensive Renovation              |
| Core Academic               | New Construction                  |
| Custodial & Maintenance     |                                   |
| Dining & Food Service       |                                   |
| Health & Physical Education |                                   |
| Media Center                |                                   |
| Medical                     |                                   |
| Other                       |                                   |
| Science                     |                                   |
| Special Education           |                                   |
| Support                     |                                   |
| Vocations & Technology      |                                   |

## 4. Option 3 | Education Plan

**Existing to Remain  
at BHS Greenough Building**  
181,050 sf

**New Construction  
at BHS Greenough Building**  
298,130 sf

**Total Area  
at BHS Greenough Building**  
470,180 sf

**For additional Education Plan  
at Tappan Gym and the Unified  
Arts Building (UAB) see  
OPTIONAL PROJECTS**

**Renovation at Tappan Gym  
(Option 3)**  
60,130 sf

**New Construction at Tappan  
Gym  
(Option 3)**  
64,050 sf

**Total Project Cost**

**\$ 348,352,647**

Option 3 is designed to accomplish the goals set forth by the BHS community during the visioning sessions from the past two years. It accommodates the complete space program as defined in the Ed Plan.

In Option 3, new construction of a five-story academic wing creates a new façade facing on Greenough Street and Cypress Field. The new addition replaces the existing Roberts Wing, the central 1996 addition, and the Schluntz Gym wing. A basement-level parking garage, accessible from Lowell Road, is proposed at this addition. New construction extends into the existing courtyard on four levels, preserving a smaller courtyard open space.

The new addition within the courtyard places important spaces used by all students at the center of the school. The new double-height Cafeteria occupies the first floor of an atrium that extends vertically through the upper levels of the school. The Cafeteria has views and is accessible to the open courtyard. A Student Forum area adjacent to Cafeteria offers a venue for large assemblies of students for specific occasions, and on a day-to-day basis, for informal gathering and collaboration. A new 400-seat theater completes the new courtyard addition, and can take advantage of its proximity to the Student Forum and Cafeteria for lobby space.

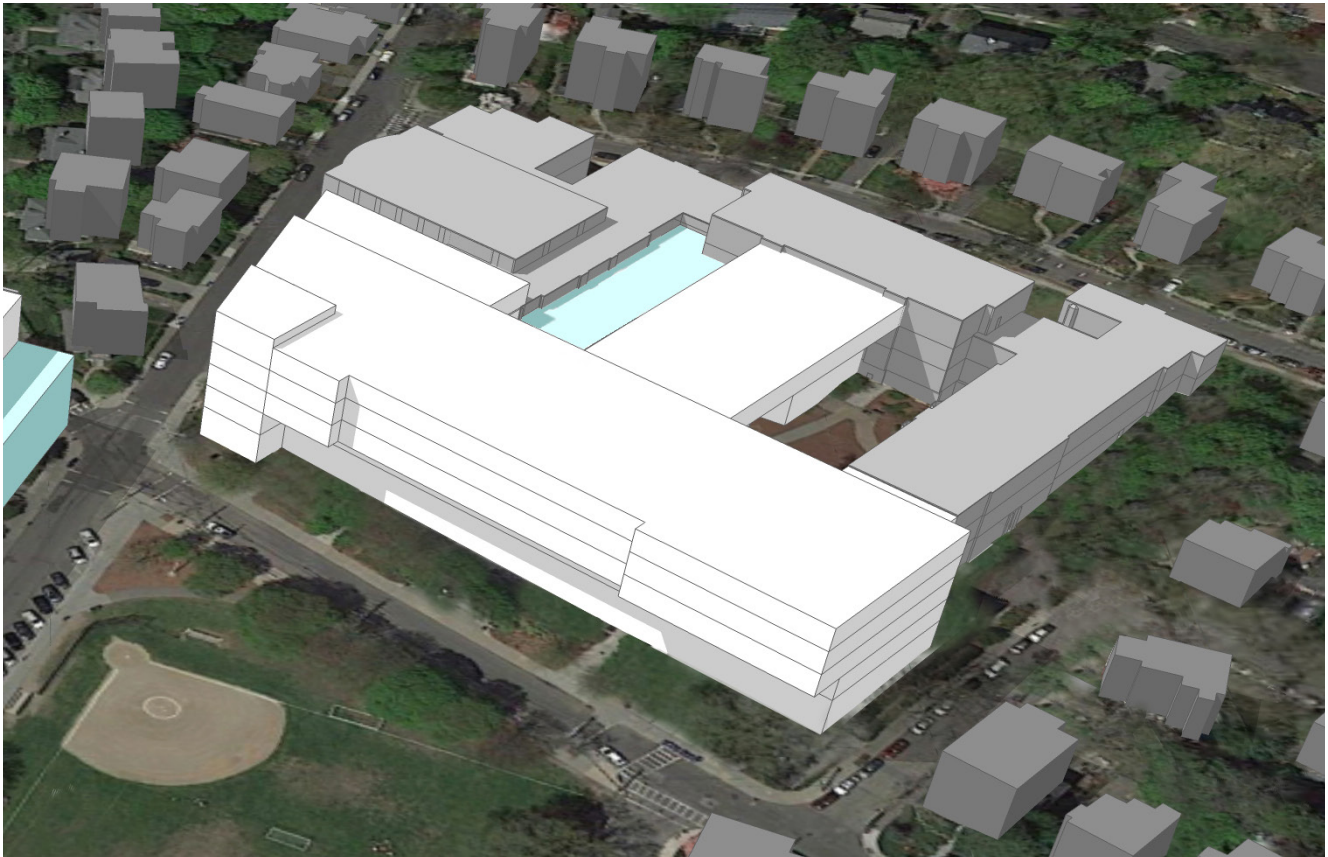
A new double-height Library bridges across the Theater and Cafeteria, connecting to the existing classroom wings on Tappan Street and Welland Road, and the new addition on Greenough Street.

The first two floor levels of the new addition at Greenough Street provide upgraded and additional performance, music, and dance facilities, including a White Box Theater, Black Box Theater, Dance Studio, Music Classroom, two Band Rooms, and a Chorus Room. A new Culinary Arts Kitchen and Café located near the school entrance enhances the program by providing the opportunity to serve the public. With new space for these programs housed in the additions, existing space formerly occupied by these programs is renovated for teacher planning, collaborative space, and classrooms.

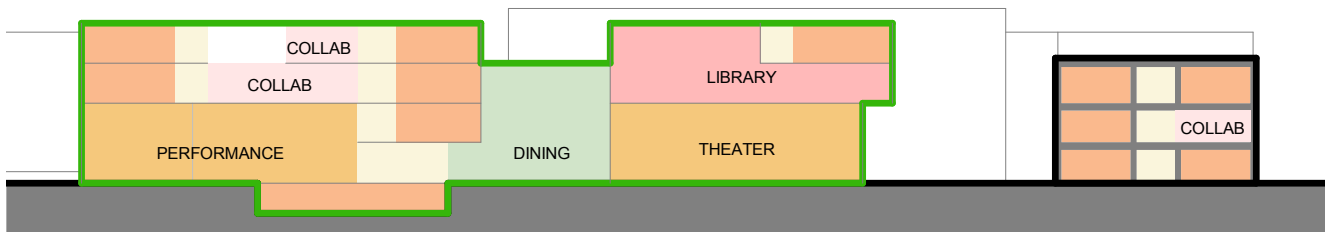
The upper three floors of the Greenough Street addition contain classrooms, Maker Spaces, collaborative Learning Commons, and teacher planning areas. Twenty-four new Science Classrooms/ Labs and Preparation Rooms are stacked in two groups of four on each of the three upper floors of the addition. This arrangement offers the opportunity for collaboration between adjacent science classrooms, while the proximity of science classrooms to other classrooms promotes a more interdisciplinary curriculum. With all science classrooms relocated to new science classrooms in the addition, remaining existing science classrooms are renovated as classrooms.

In order to accommodate the full Ed Plan program space needs the renovation and expansion of the Tappan Gym Option 3, providing competition and practice gym and field house facilities must be included, and is reflected in the project costs. Refer to the Optional Projects section of this report.

## 4. Option 3 | Education Plan

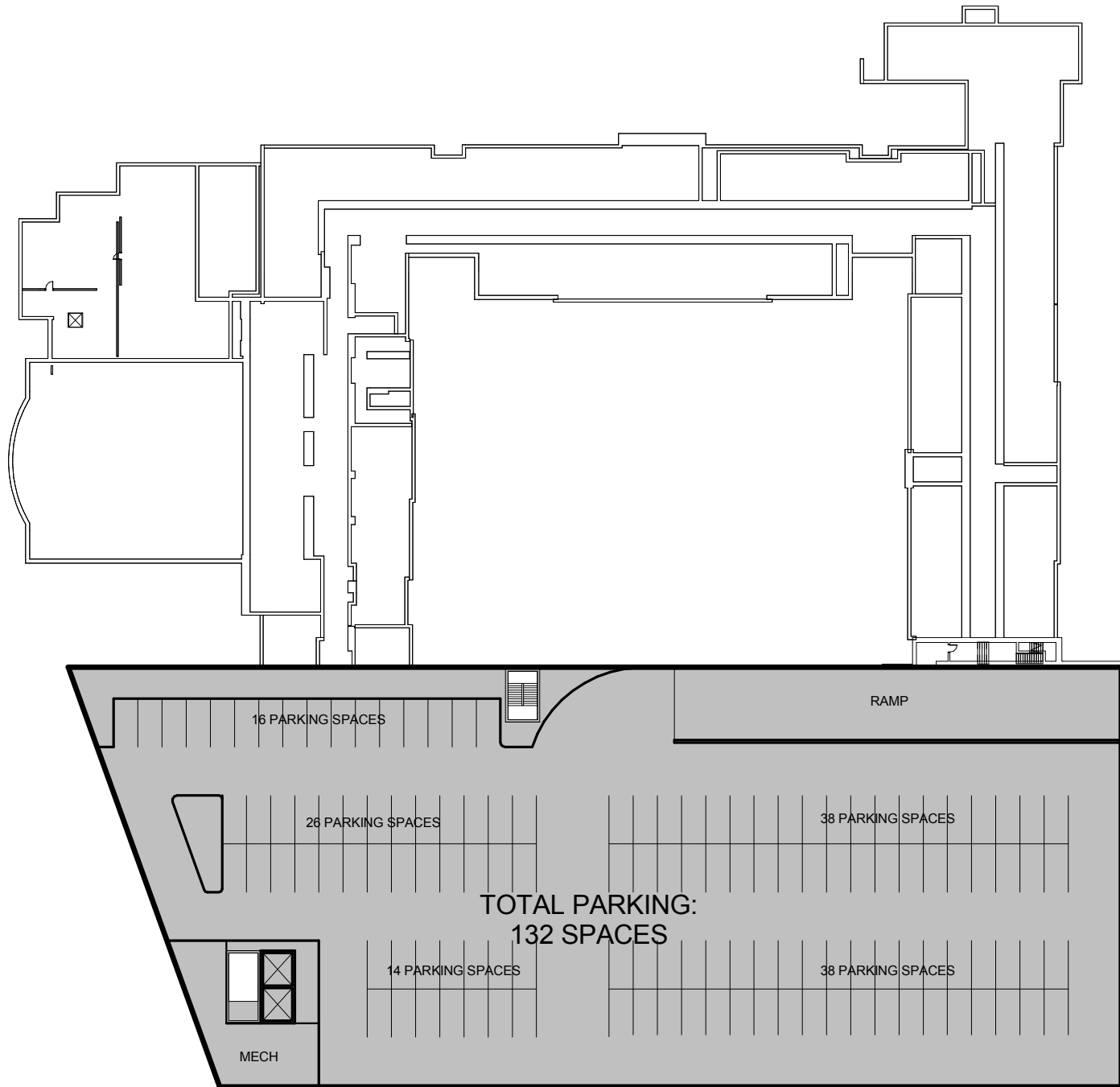


Massing

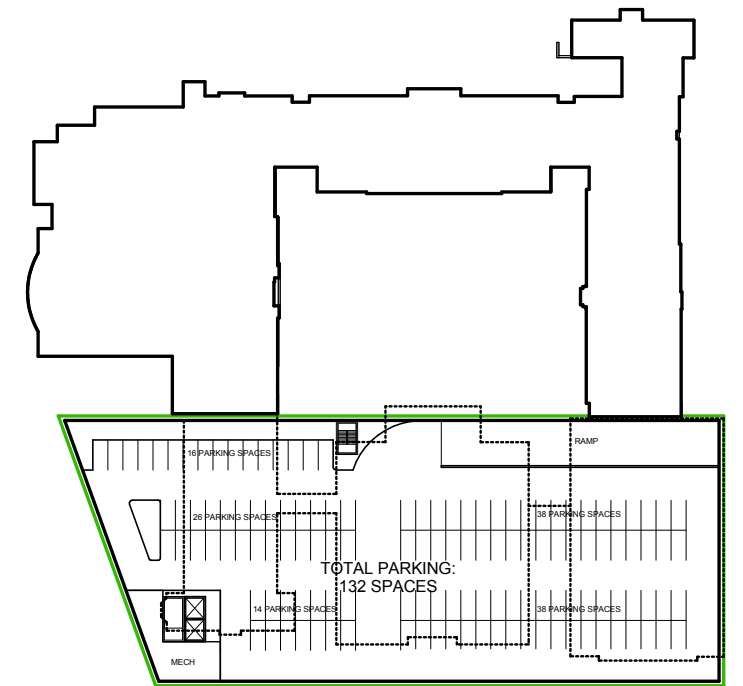


Section

4. Option 3 | Education Plan



Basement - Program



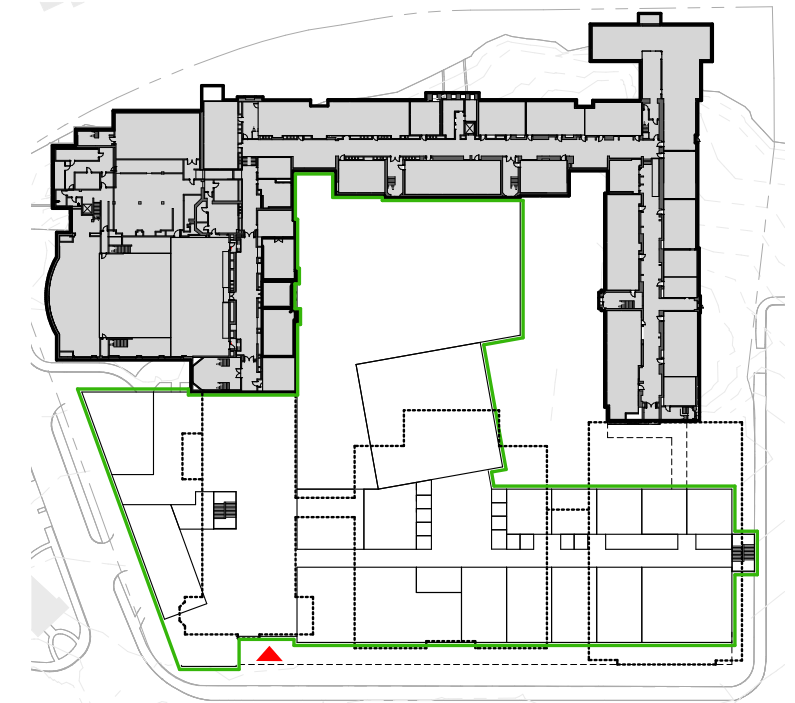
Basement Floor - Diagram of Intervention

- |                             |                                   |
|-----------------------------|-----------------------------------|
| Administration & Guidance   | Outline Existing to be Demolished |
| Art & Music                 | Existing to Remain                |
| Auditorium & Drama          | Light Renovation at Existing      |
| Circulation                 | Code Compliance Renovation        |
| Common Shared               | Intensive Renovation              |
| Core Academic               | New Construction                  |
| Custodial & Maintenance     |                                   |
| Dining & Food Service       |                                   |
| Health & Physical Education |                                   |
| Media Center                |                                   |
| Medical                     |                                   |
| Other                       |                                   |
| Science                     |                                   |
| Special Education           |                                   |
| Support                     |                                   |
| Vocations & Technology      |                                   |

### 4. Option 3 | Education Plan



First Floor - Program



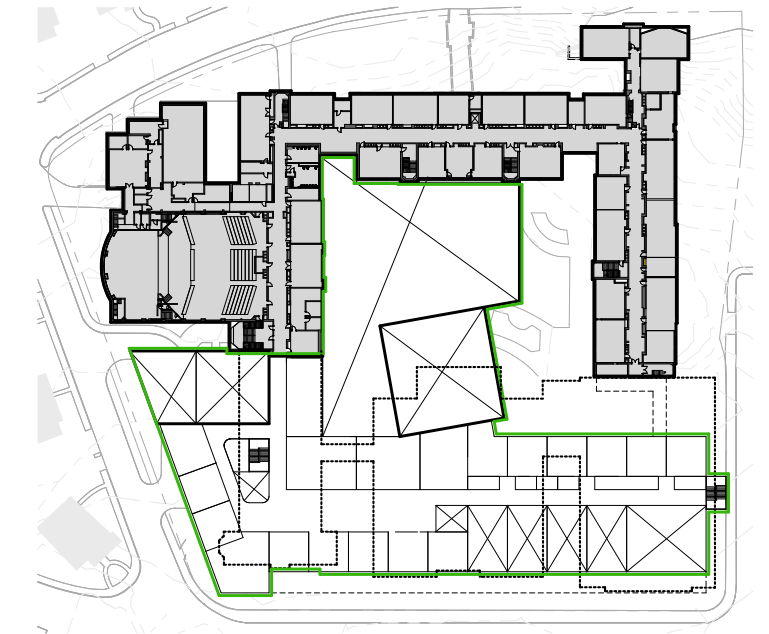
First Floor - Diagram of Intervention

- |                                                                                                                                                    |                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Administration & Guidance   | <span style="display:inline-block; width:15px; border-bottom:1px dashed black;"></span> Outline Existing to be Demolished  |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFD700; border:1px solid black;"></span> Art & Music                 | <span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span> Existing to Remain            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFFF00; border:1px solid black;"></span> Auditorium & Drama          | <span style="display:inline-block; width:15px; height:15px; border:1px dashed black;"></span> Light Renovation at Existing |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFFACD; border:1px solid black;"></span> Circulation                 | <span style="display:inline-block; width:15px; height:15px; border:1px solid blue;"></span> Code Compliance Renovation     |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFC0CB; border:1px solid black;"></span> Common Shared               | <span style="display:inline-block; width:15px; height:15px; border:1px solid grey;"></span> Intensive Renovation           |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFA07A; border:1px solid black;"></span> Core Academic               | <span style="display:inline-block; width:15px; height:15px; border:2px solid green;"></span> New Construction              |
| <span style="display:inline-block; width:15px; height:15px; background-color:#A9A9A9; border:1px solid black;"></span> Custodial & Maintenance     |                                                                                                                            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#90EE90; border:1px solid black;"></span> Dining & Food Service       |                                                                                                                            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Health & Physical Education |                                                                                                                            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF69B4; border:1px solid black;"></span> Media Center                |                                                                                                                            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#DDA0DD; border:1px solid black;"></span> Medical                     |                                                                                                                            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#6A5ACD; border:1px solid black;"></span> Other                       |                                                                                                                            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF0000; border:1px solid black;"></span> Science                     |                                                                                                                            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF4500; border:1px solid black;"></span> Special Education           |                                                                                                                            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#808080; border:1px solid black;"></span> Support                     |                                                                                                                            |
| <span style="display:inline-block; width:15px; height:15px; background-color:#9370DB; border:1px solid black;"></span> Vocations & Technology      |                                                                                                                            |

4. Option 3 | Education Plan



Second Floor - Program



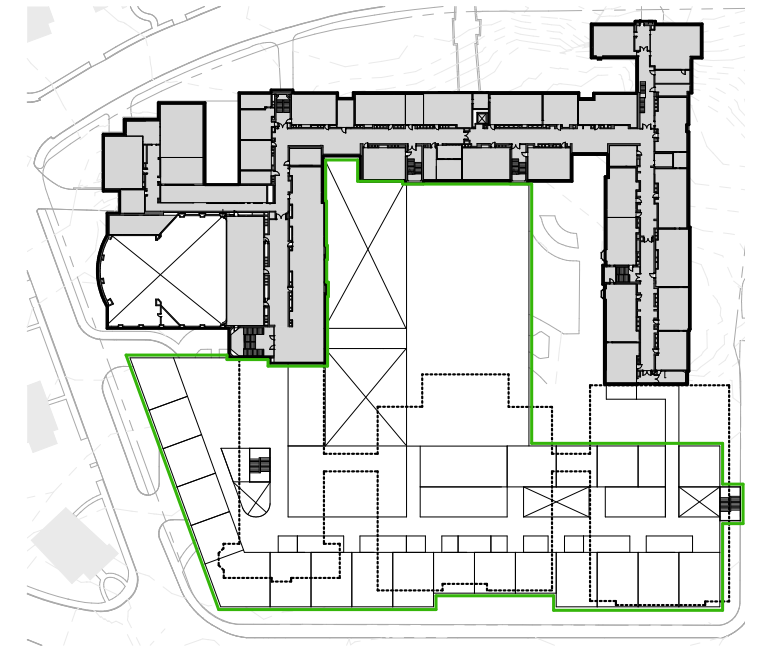
Second Floor - Diagram of Intervention

- |                                                                                                                                                    |                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Administration & Guidance   | <span style="display:inline-block; width:15px; border-bottom:1px dashed black;"></span> Outline Existing to be Demolished                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFD700; border:1px solid black;"></span> Art & Music                 | <span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span> Existing to Remain                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFFF00; border:1px solid black;"></span> Auditorium & Drama          | <span style="display:inline-block; width:15px; height:15px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); border:1px solid black;"></span> Light Renovation at Existing |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFFACD; border:1px solid black;"></span> Circulation                 | <span style="display:inline-block; width:15px; height:15px; background-color:#4169E1; border:1px solid black;"></span> Code Compliance Renovation                                                                           |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFB6C1; border:1px solid black;"></span> Common Shared               | <span style="display:inline-block; width:15px; height:15px; background-color:#A9A9A9; border:1px solid black;"></span> Intensive Renovation                                                                                 |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFDAB9; border:1px solid black;"></span> Core Academic               | <span style="display:inline-block; width:15px; height:15px; border:2px solid green;"></span> New Construction                                                                                                               |
| <span style="display:inline-block; width:15px; height:15px; background-color:#A9A9A9; border:1px solid black;"></span> Custodial & Maintenance     |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#90EE90; border:1px solid black;"></span> Dining & Food Service       |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Health & Physical Education |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF69B4; border:1px solid black;"></span> Media Center                |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#DDA0DD; border:1px solid black;"></span> Medical                     |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#6A5ACD; border:1px solid black;"></span> Other                       |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF4500; border:1px solid black;"></span> Science                     |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF8C00; border:1px solid black;"></span> Special Education           |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#A9A9A9; border:1px solid black;"></span> Support                     |                                                                                                                                                                                                                             |
| <span style="display:inline-block; width:15px; height:15px; background-color:#9370DB; border:1px solid black;"></span> Vocations & Technology      |                                                                                                                                                                                                                             |

### 4. Option 3 | Education Plan



Third Floor - Program



Third Floor - Diagram of Intervention

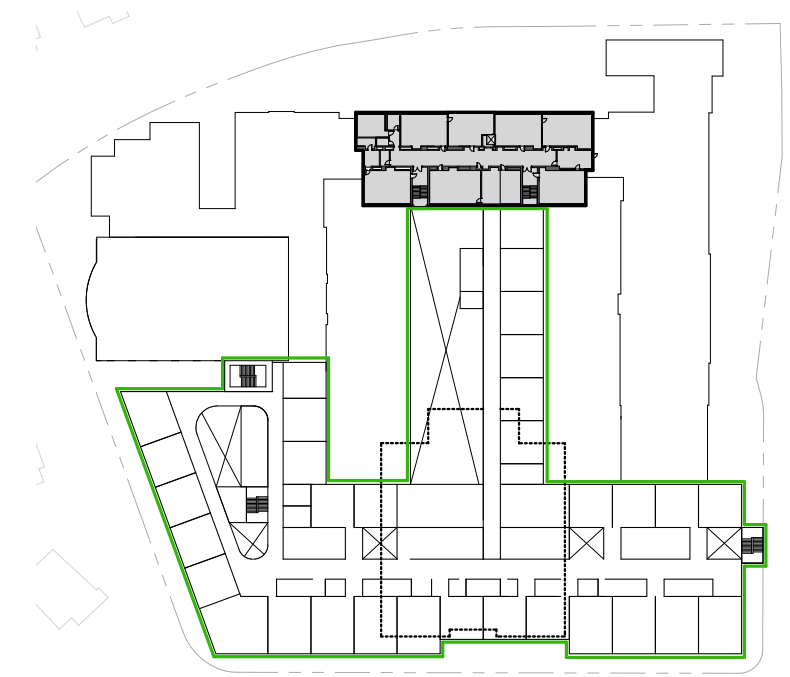
- Administration & Guidance
- Art & Music
- Auditorium & Drama
- Circulation
- Common Shared
- Core Academic
- Custodial & Maintenance
- Dining & Food Service
- Health & Physical Education
- Media Center
- Medical
- Other
- Science
- Special Education
- Support
- Vocations & Technology
- Outline Existing to be Demolished
- Existing to Remain
- Light Renovation at Existing
- Code Compliance Renovation
- Intensive Renovation
- New Construction



4. Option 3 | Education Plan



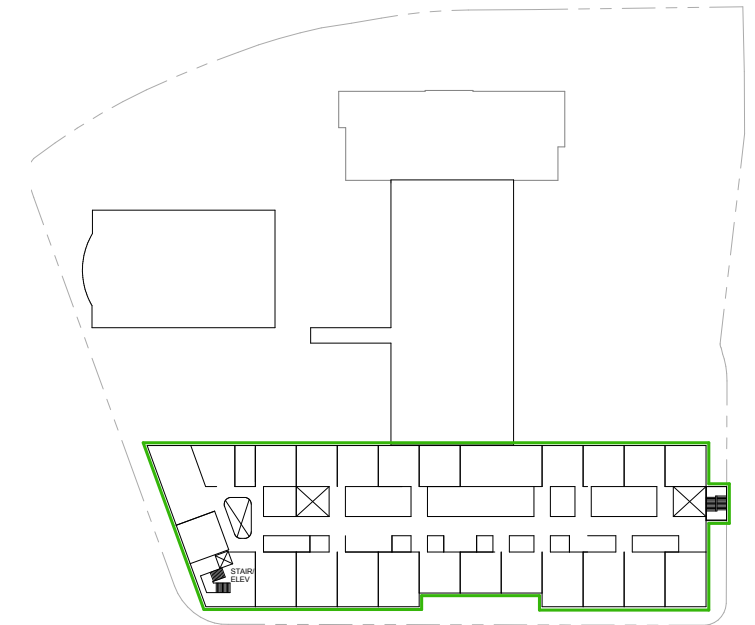
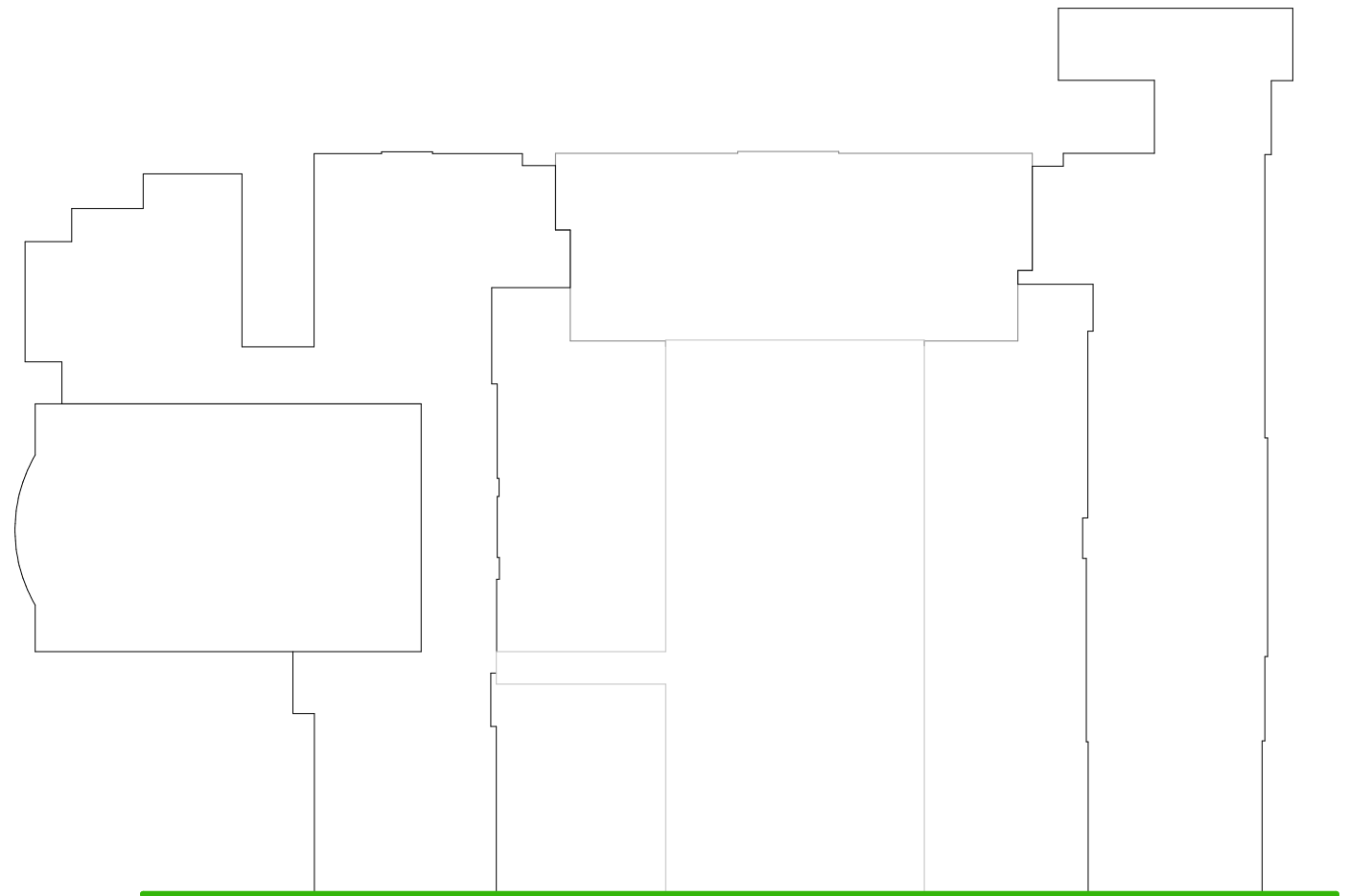
Fourth Floor - Program



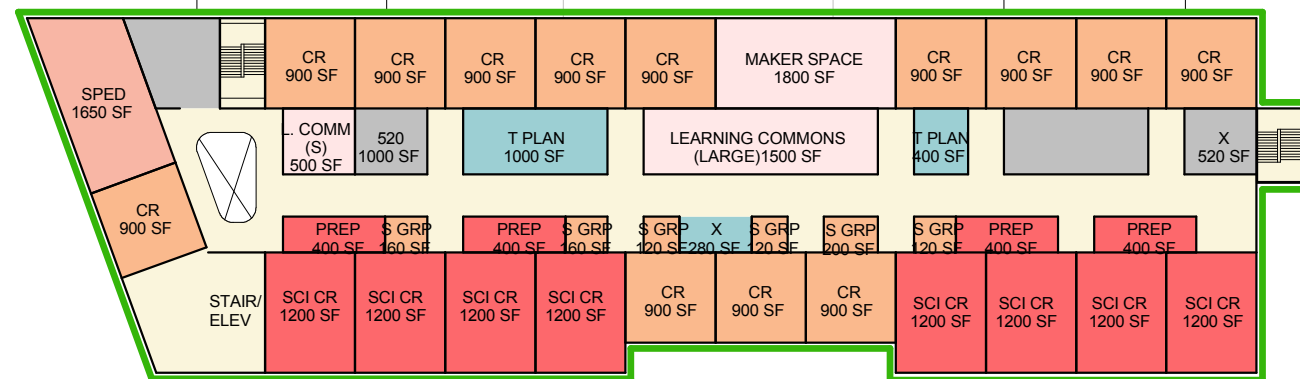
Fourth Floor - Diagram of Intervention

- |                             |                                   |
|-----------------------------|-----------------------------------|
| Administration & Guidance   | Outline Existing to be Demolished |
| Art & Music                 | Existing to Remain                |
| Auditorium & Drama          | Light Renovation at Existing      |
| Circulation                 | Code Compliance Renovation        |
| Common Shared               | Intensive Renovation              |
| Core Academic               | New Construction                  |
| Custodial & Maintenance     |                                   |
| Dining & Food Service       |                                   |
| Health & Physical Education |                                   |
| Media Center                |                                   |
| Medical                     |                                   |
| Other                       |                                   |
| Science                     |                                   |
| Special Education           |                                   |
| Support                     |                                   |
| Vocations & Technology      |                                   |

### 4. Option 3 | Education Plan



Fifth Floor - Diagram of Intervention








Fifth Floor - Program



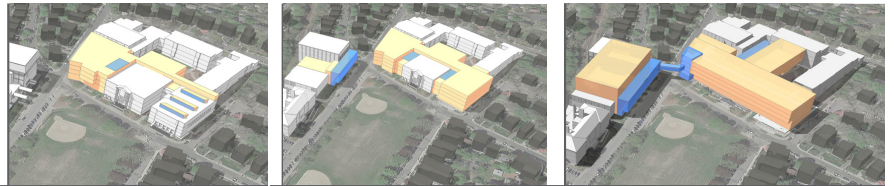
- |                                                                                                                                                    |                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Administration & Guidance   | <span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span> Existing to Remain                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFD700; border:1px solid black;"></span> Art & Music                 | <span style="display:inline-block; width:15px; height:15px; border:1px dashed black;"></span> Existing to Remain                                  |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFFF00; border:1px solid black;"></span> Auditorium & Drama          | <span style="display:inline-block; width:15px; height:15px; background-color:#0000FF; border:1px solid black;"></span> Code Compliance Renovation |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFFACD; border:1px solid black;"></span> Circulation                 | <span style="display:inline-block; width:15px; height:15px; background-color:#808080; border:1px solid black;"></span> Intensive Renovation       |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFB6C1; border:1px solid black;"></span> Common Shared               | <span style="display:inline-block; width:15px; height:15px; border:2px solid green;"></span> New Construction                                     |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFA07A; border:1px solid black;"></span> Core Academic               |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#A9A9A9; border:1px solid black;"></span> Custodial & Maintenance     |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#90EE90; border:1px solid black;"></span> Dining & Food Service       |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Health & Physical Education |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF69B4; border:1px solid black;"></span> Media Center                |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#C0C0C0; border:1px solid black;"></span> Medical                     |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#6A5ACD; border:1px solid black;"></span> Other                       |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#DC143C; border:1px solid black;"></span> Science                     |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF4500; border:1px solid black;"></span> Special Education           |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#696969; border:1px solid black;"></span> Support                     |                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#9370DB; border:1px solid black;"></span> Vocations & Technology      |                                                                                                                                                   |

## 4. Options 1, 2 and 3 Comparison | Extent of Intervention




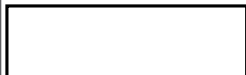
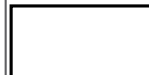









-  Extent of Demolition
-  Light Renovations at Existing to Remain
-  Code Renovations
-  Program Renovations
-  New Construction

ENROLLMENT ACCOMMODATION
MA HS STANDARDS
EDUCATION PLAN

**OPTION 1**      **OPTION 2**      **OPTION 3**



### BHS

|                      |                                                                                     |                                                                                      |                                                                                       |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Extent of Demolition |    |     |    |
| Light Renovations    |    |    |                                                                                       |
| Code Renovations     |   |    |   |
| Program Renovations  |  |  |  |
| New Construction     |  |  |  |

### Tappan Gym


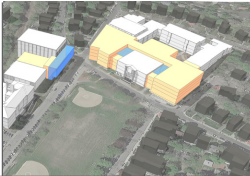
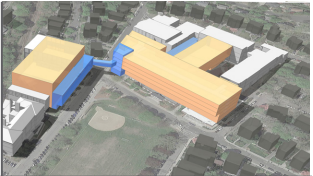
























|                   |  |                                                                                      |                                                                                       |
|-------------------|--|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Renovations / New |  |  |  |
|-------------------|--|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|

### UAB

|                   |                                                                                     |                                                                                      |                                                                                       |
|-------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Renovations / New |  |  |  |
|-------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|

OTHER (not shown) Parking, Cypress Park, Field, and Playground

### 4. Options 1, 2 and 3 | Analysis of Preliminary Massing Options

|                                | ENROLLMENT<br>ACCOMMODATION                                                                         | MA HS<br>STANDARDS                                                                  | EDUCATION<br>PLAN                                                                     |
|--------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                | OPTION 1                                                                                            | OPTION 2                                                                            | OPTION 3                                                                              |
|                                |                    |   |    |
|                                |  Advantageous      |                                                                                     |                                                                                       |
|                                |  Adequate          |                                                                                     |                                                                                       |
|                                |  Less Advantageous |                                                                                     |                                                                                       |
| Program Accommodation          |                    |    |    |
| Phasing/ Schedule/ Swing-space |                    |    |    |
| Constructibility Operations    |                  |  |  |
| Circulation / Adjacencies      |                  |  |  |
| Systems Upgrades               |                  |  |  |
| Sustainability / LEED          |                  |  |  |
| Construction Costs             |                  |  |  |

OTHER (not shown) Cypress Park, Field, and Playground / Parking

## 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

For Options 1, 2, and 3, HMFH Architects studied three levels of program accommodation for the Brookline High School, contained within the boundaries of the existing BHS campus. With Option 4, the borders of the campus are expanded to include a site defined by the MBTA Green Line at Tappan Street, Cypress Street, and Brington Road. The site offers the opportunity to construct a free-standing building with the capacity to accommodate the student enrollment increase. This provides greater flexibility in the phasing and scope of improvements to the existing High School campus buildings.

The Cypress Street building in Option 4 is programmed as a 9th Grade academic building. The building contains the academic, administrative, and community spaces, including Dining/ Kitchen, Art, Music, and the Library, necessary to support the 9th Grade enrollment. The building serves as a transition between the neighborhood-specific elementary schools and the single Brookline High School. 9th Grade students travel to the Tappan Gym, the Unified Arts Building, and the Greenough building for athletic activities, visual and Consumer Education classes, and performance and advanced classes.

The priority for improvements at the existing Greenough Building is a transformation of the Science Department facilities, which are currently undersized and inadequately equipped. Six (6) Science classrooms/ labs are located within the 9th Grade academic building, with the remaining eighteen (18) at the existing main academic building. Other potential projects include window replacement, roof repairs, and minor systems repairs.

There are four sub-sets of options within the overall Option 4. These are combinations of several projects as follows.

At Cypress Street, there are two options for the free-standing academic building, based on the relationship of the proposed building to the MBTA Green Line.

- The first option is to construct the new building within the existing site. An entrance plaza is proposed spanning the MBTA tracks to provide an entrance from the campus pedestrian path at Tappan Street.
- In the second option, the academic building spans the MBTA tracks and locates an entrance lobby on Tappan Street. The volume of the new building extends the BHS campus to Cypress Street. The pedestrian path and entrance to the new building are developed to reinforce the sense of a unified campus.

## 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

At the BHS Greenough building, there are two options for improvements to the Science Department facilities.

- The first option includes the reconfiguration and renovation of the twenty-three (23) existing Science classrooms/ labs on the Third Floor into eighteen (18) larger rooms. This renovation displaces five existing classrooms which are relocated to a new single-story addition to the Roberts wing along Tappan Street.
- The second option is new construction of a three-story addition to the Roberts Wing as a STEM wing. Six (6) Science classrooms/ labs are stacked on each of three floor levels, supported by two Maker Spaces, teacher offices, and two collaborative Learning Commons. The proximity of the six Science classrooms/ labs encourages collaboration between the Science classrooms. The location of clusters of Science classrooms/ labs on three levels distributes Science within the School to encourage more interdisciplinary work. With all Science classrooms/ labs in the new STEM wing, the existing Science wing is renovated for classroom and collaborative space. A new Culinary Arts Kitchen/ Café on the first floor enhances this program by providing the opportunity to serve the public.

These projects are combined into the following options:

### Option 4A

- Renovation of the existing BHS Science Classrooms-Labs at the 3rd-Floor
- New Construction Addition of (5) Classrooms at the BHS Roberts-Wing
- New Construction of the 9th Grade academic building within the existing Cypress Street property/site

### Option 4B

- Renovation of the existing BHS Science Classrooms-Labs at the 3rd-Floor to Classrooms and Collaborative Learning areas
- New Construction Addition of STEM-Wing at the BHS Roberts-Wing
- New Construction of the 9th Grade academic building within the existing Cypress Street property/site

### Option 4C

- Renovation of the existing BHS Science classrooms/ labs
- New Construction Addition of (5) Classrooms at the BHS Roberts-Wing
- New Construction of the 9th Grade academic building extending across the MBTA tracks and fronting on Tappan St.

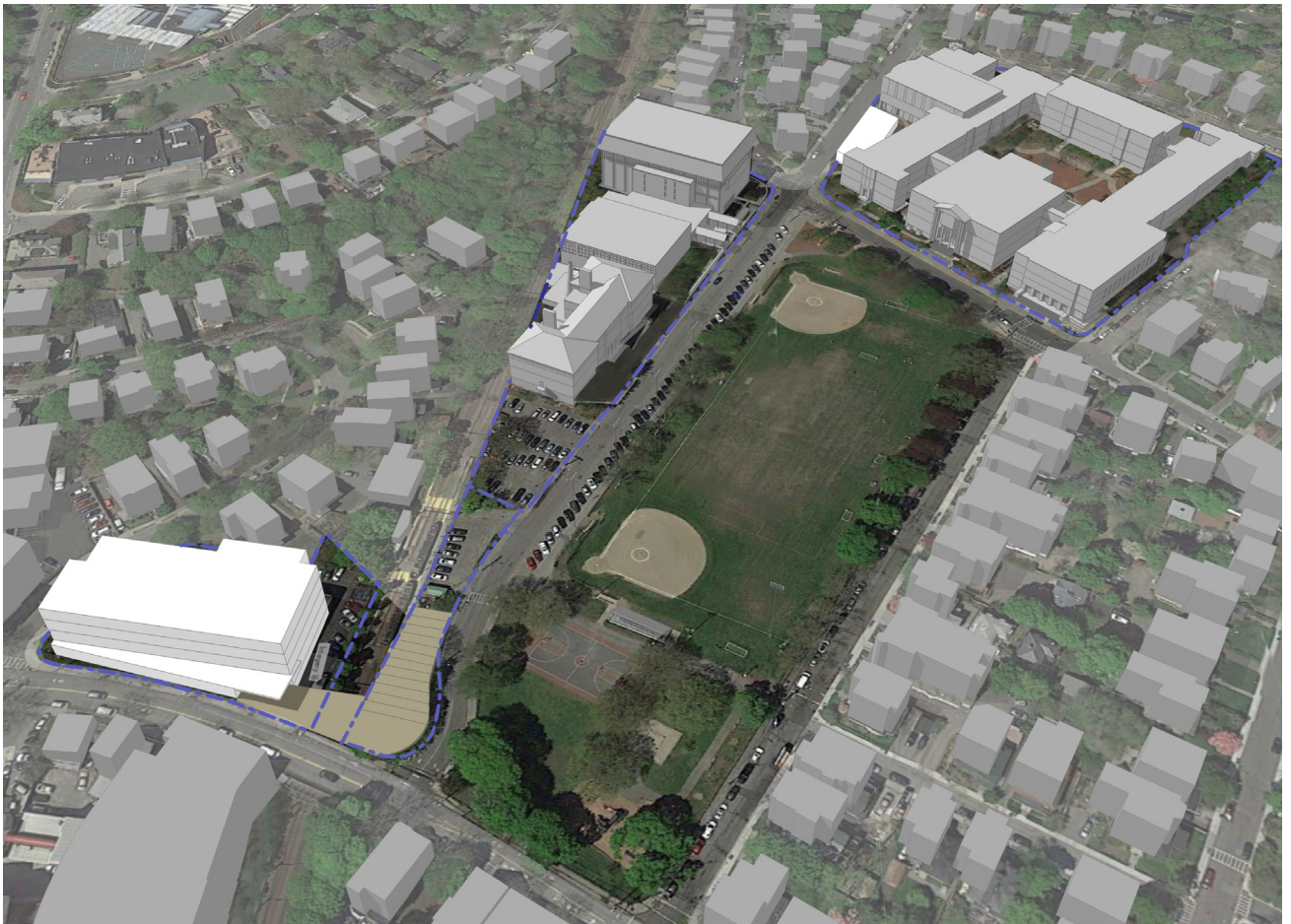
### Option 4D

- Renovation of the existing BHS Science Classrooms-Labs at the 3rd-Floor to Classrooms and Collaborative Learning areas
- New Construction Addition of STEM-Wing at the BHS Roberts-Wing
- New Construction of the 9th Grade academic building extending across the MBTA tracks and fronting on Tappan St.

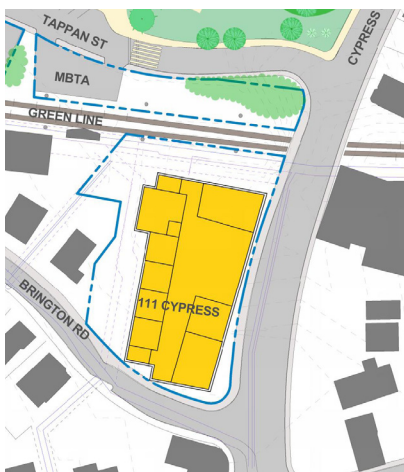
## 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

### Option 4A

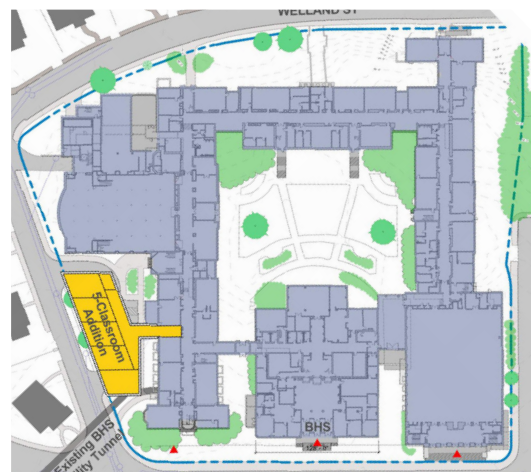
- Renovation of the existing BHS Science Classrooms-Labs at the 3rd-Floor
- New Construction Addition of (5) Classrooms at the BHS Roberts-Wing
- New Construction of the 9th Grade academic building within the existing Cypress Street property/site.



Option 4A - Campus Overview



New Cypress Building  
(see pages 4.204-4.205)

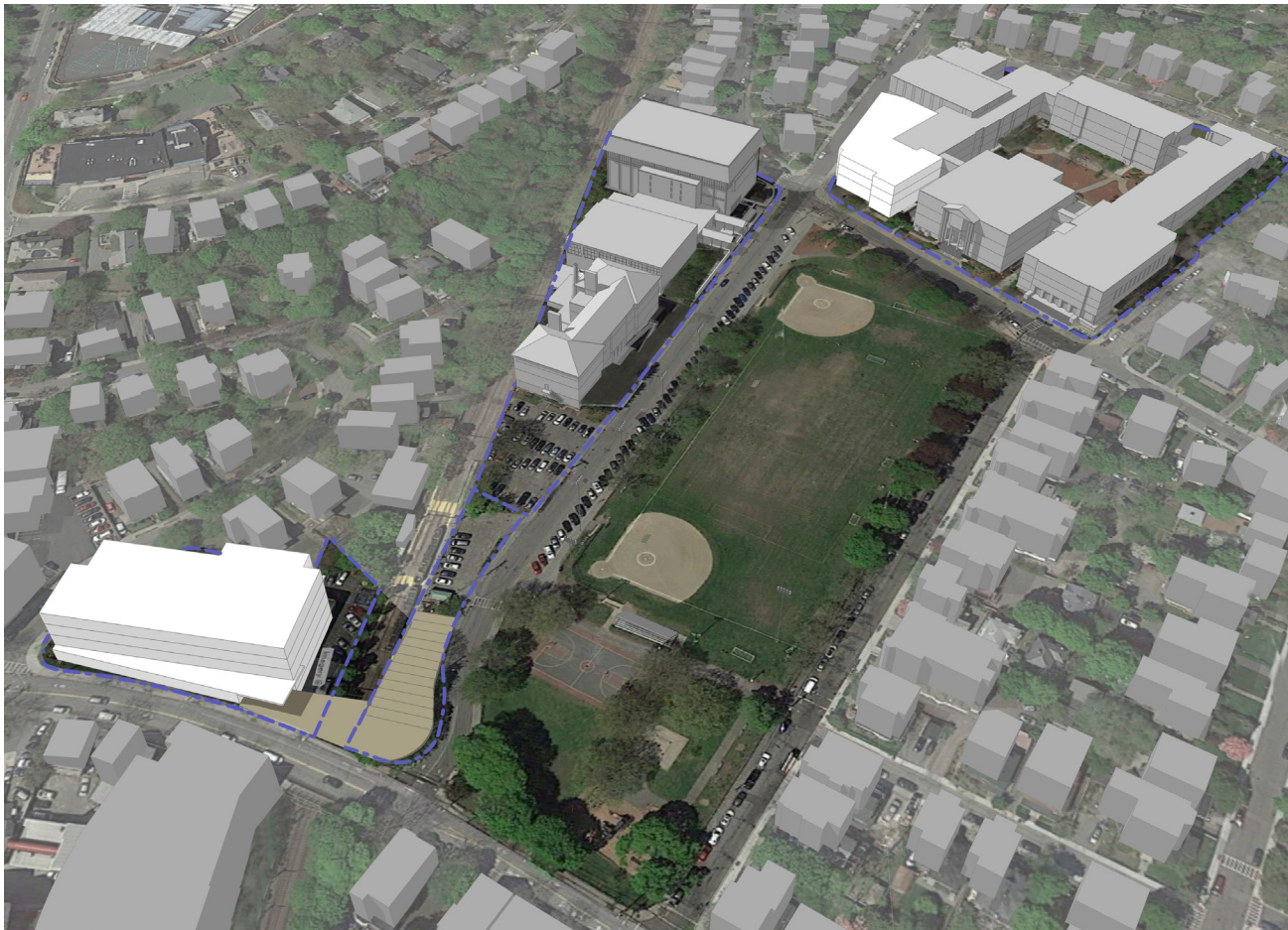


5-Classroom Addition and Main BHS Building  
(see pages 4.196-4.199)

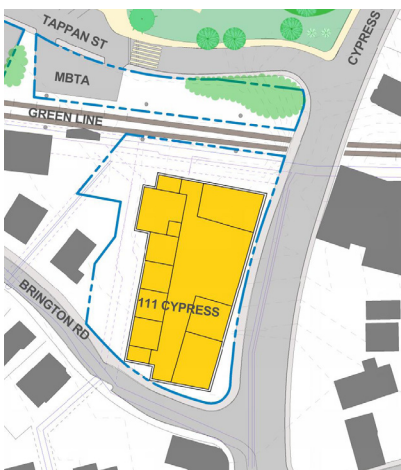
## 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

### Option 4B

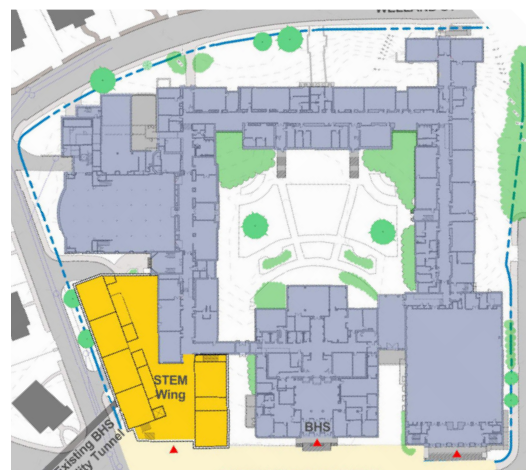
- Renovation of the existing BHS Science Classrooms-Labs at the 3rd-Floor to Classrooms and Collaborative Learning areas
- New Construction Addition of STEM-Wing at the BHS Roberts-Wing
- New Construction of the 9th Grade academic building within the existing Cypress Street property/site



Option 4B - Campus Overview



New Cypress Building  
(see pages 4.204-4.205)



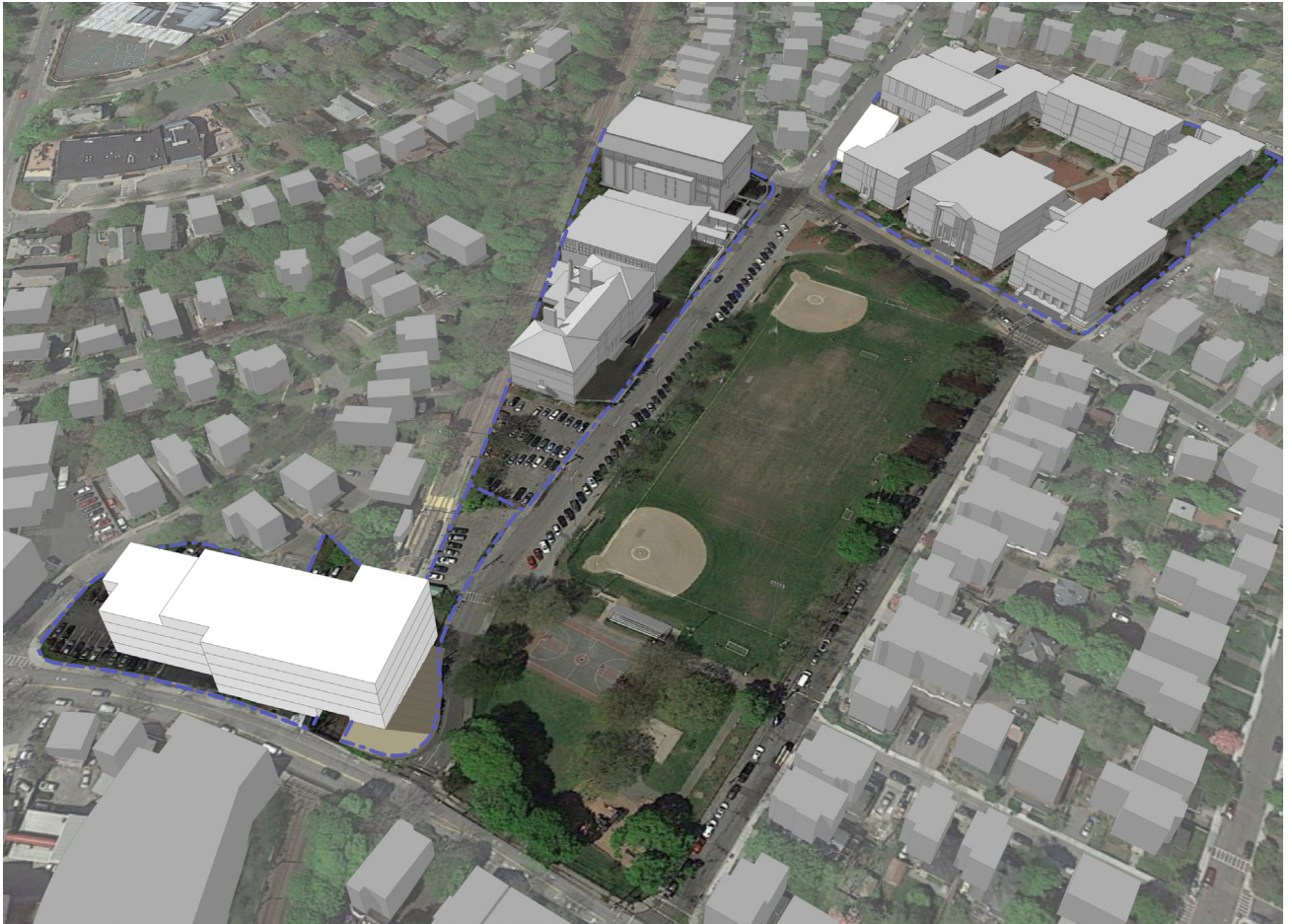
Science Class-Lab STEM Addition at Main BHS Building  
(see pages 4.200-4.203)



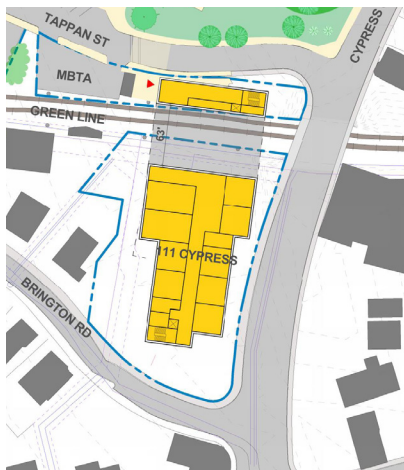
## 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

### Option 4C

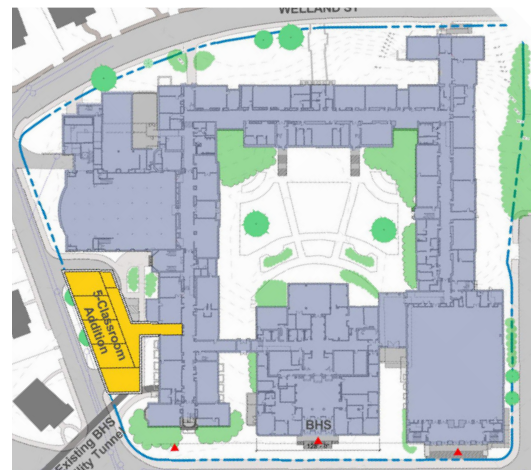
- Renovation of the existing BHS Science classrooms/ labs
- New Construction Addition of (5) Classrooms at the BHS Roberts-Wing
- New Construction of the 9th Grade academic building extending across the MBTA tracks and fronting on Tappan St.



Option 4C - Campus Overview



New Cypress Building extending over MBTA track (see pages 4.206-4.207)

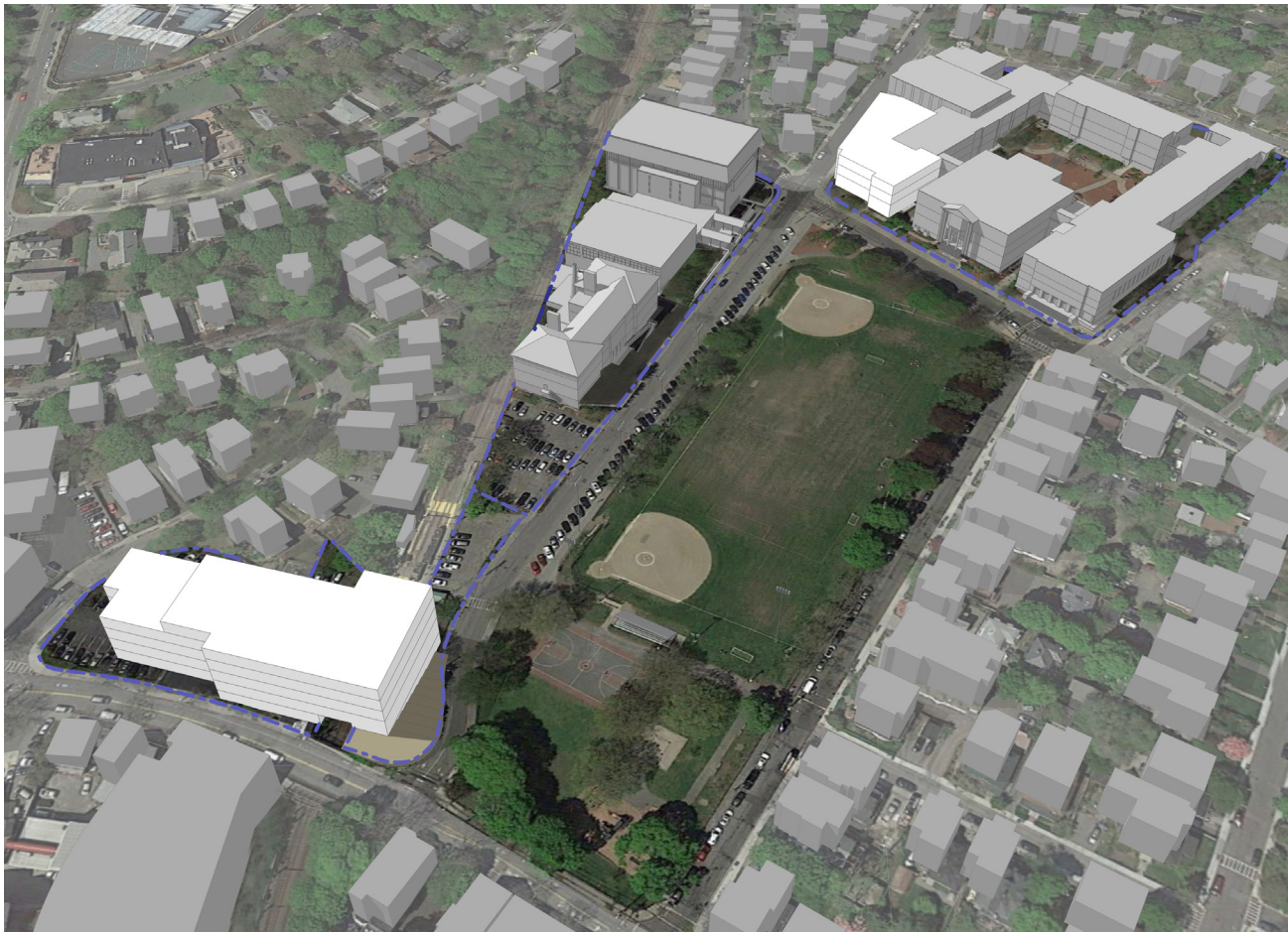


5-Classroom Addition and Main BHS Building (see pages 4.196-4.199)

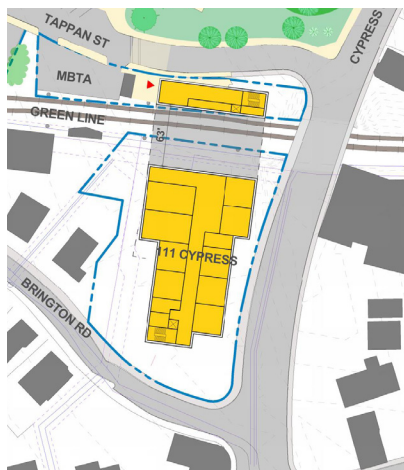
## 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

### Option 4D

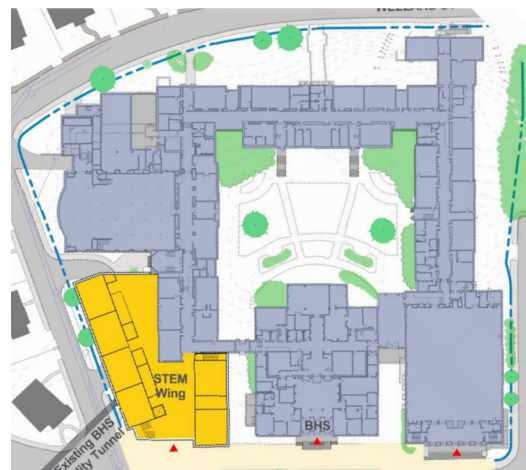
- Renovation of the existing BHS Science Classrooms-Labs at the 3rd-Floor to Classrooms and Collaborative Learning areas
- New Construction Addition of STEM-Wing at the BHS Roberts-Wing
- New Construction of the 9th Grade academic building extending across the MBTA tracks and fronting on Tappan St.



Option 4D - Campus Overview



New Cypress Building extending over MBTA track (see pages 4.206-4.207)



Science Class-Lab STEM Addition at Main BHS Building (see pages 4.200-4.203)

## 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

### Option 4A & 4C | BHS (5) Classroom Addition

Option 4A and Option 4C both rely on providing an incremental New Construction Addition of (5)-Classrooms at the BHS Roberts Wing, as well as addressing the need for improvements to the Science Department facilities.

The option includes the reconfiguration and renovation of the twenty-three (23) existing Science classrooms/labs on the Third Floor into eighteen (18) larger science classrooms. This renovation displaces five existing classrooms which are relocated to a new single-story addition to the Roberts Wing along Tappan Street.

#### Renovation Existing BHS 3rd-Floor Science

36,900 sf

#### New Construction at BHS-Greenough Building

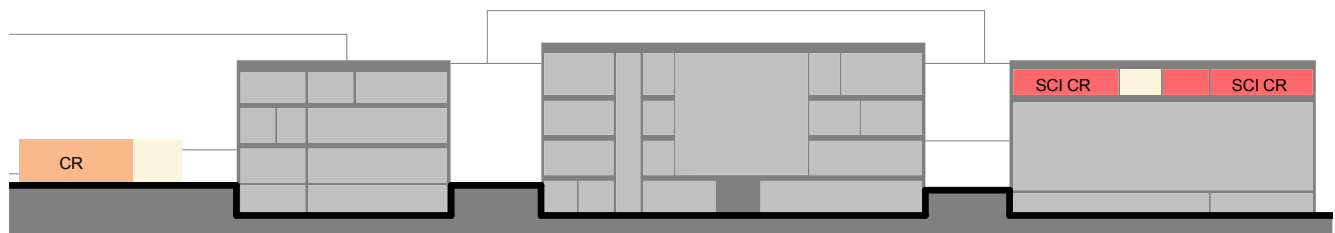
6,800 sf

## 4. Option 4 | BHS Expansion and New Cypress Building and BHS Improvements

### Option 4A & 4C | BHS 5-Classroom Addition



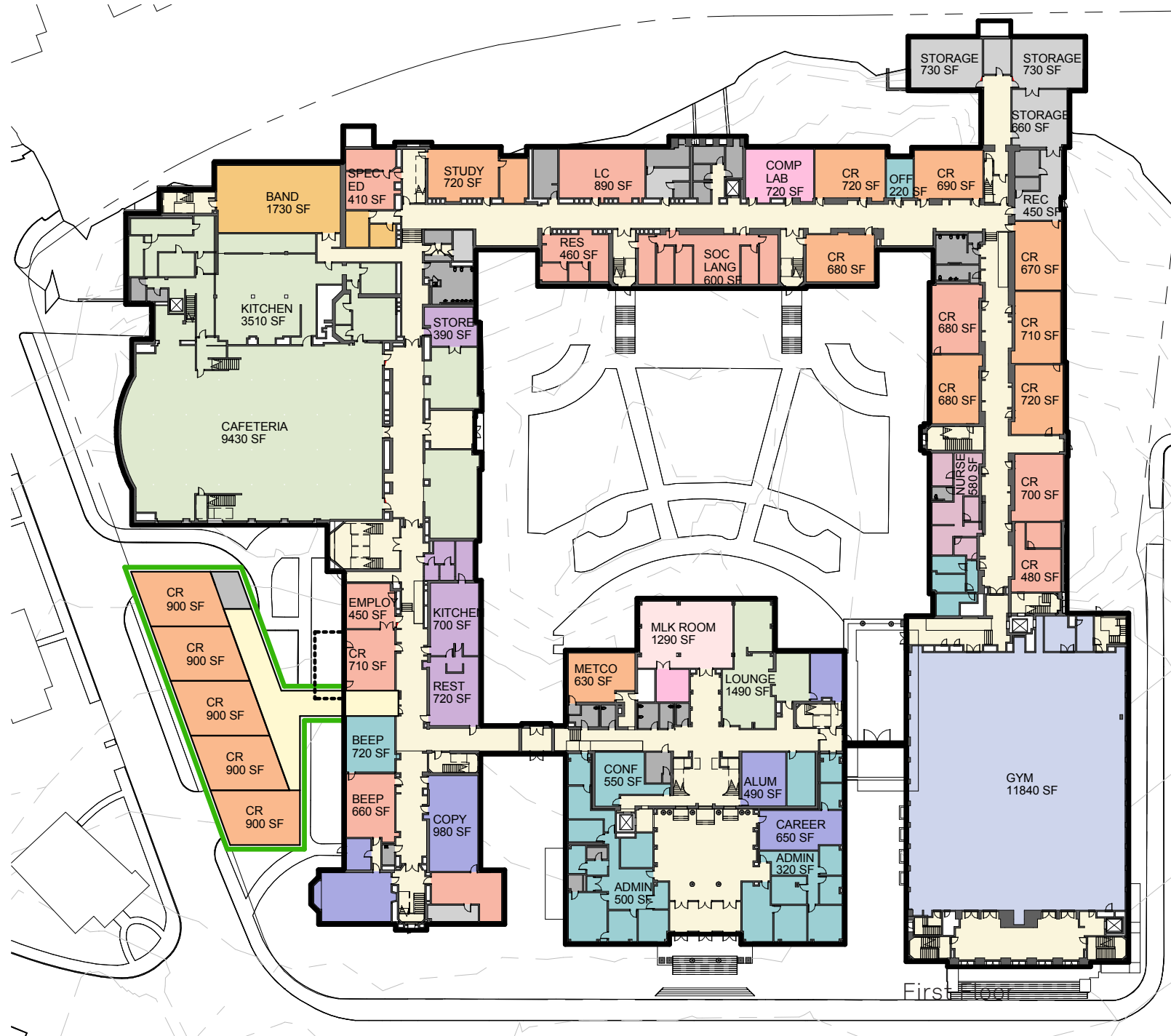
Massing



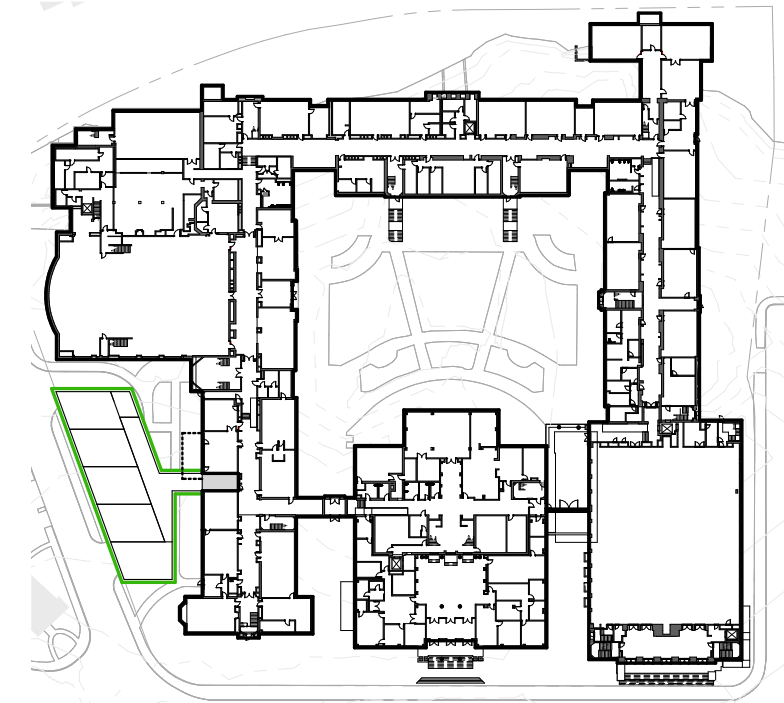
Section

### 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

#### Option 4A & 4C | BHS 5-Classroom Addition



First Floor - Program

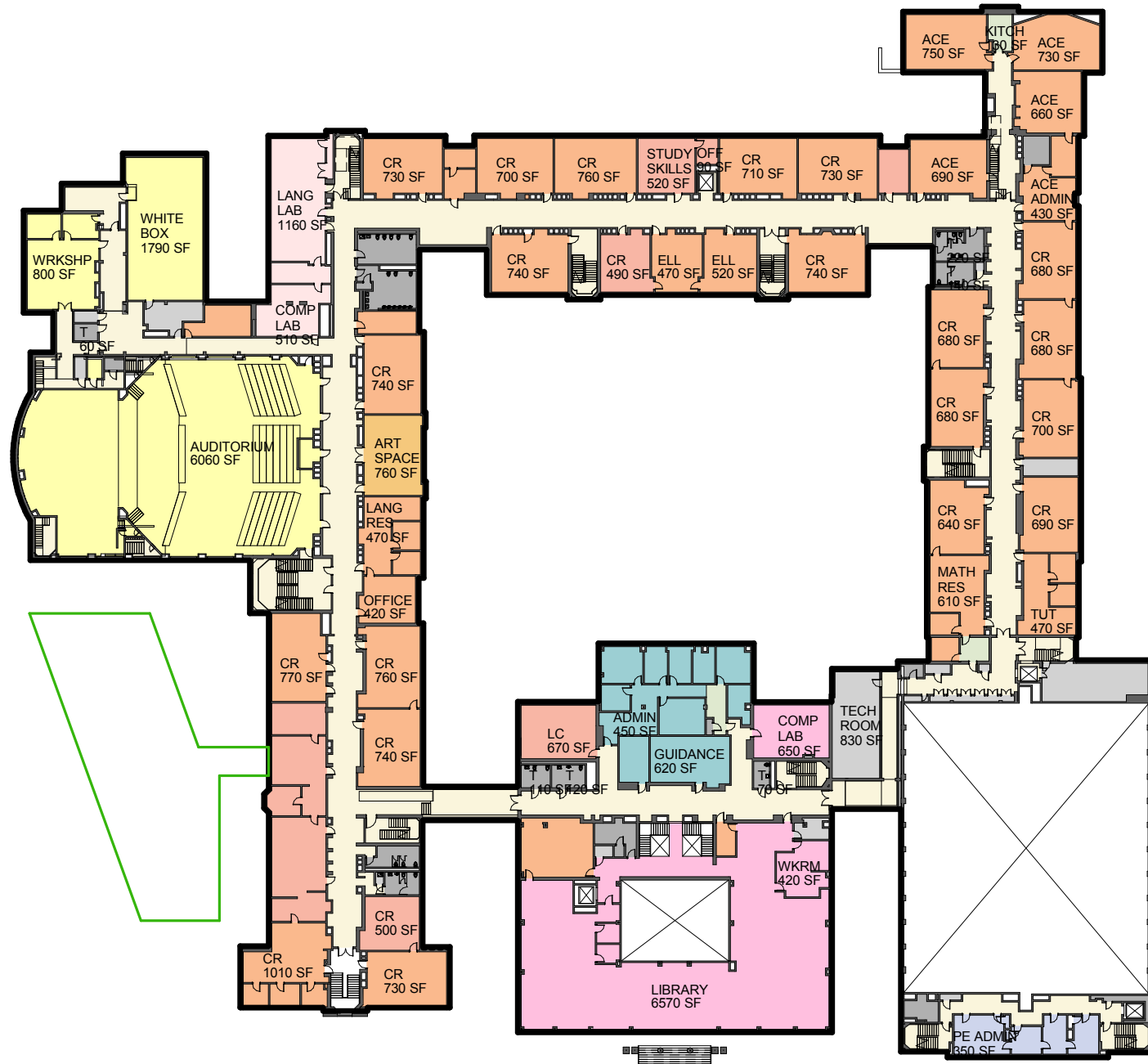


First Floor - Diagram of Intervention

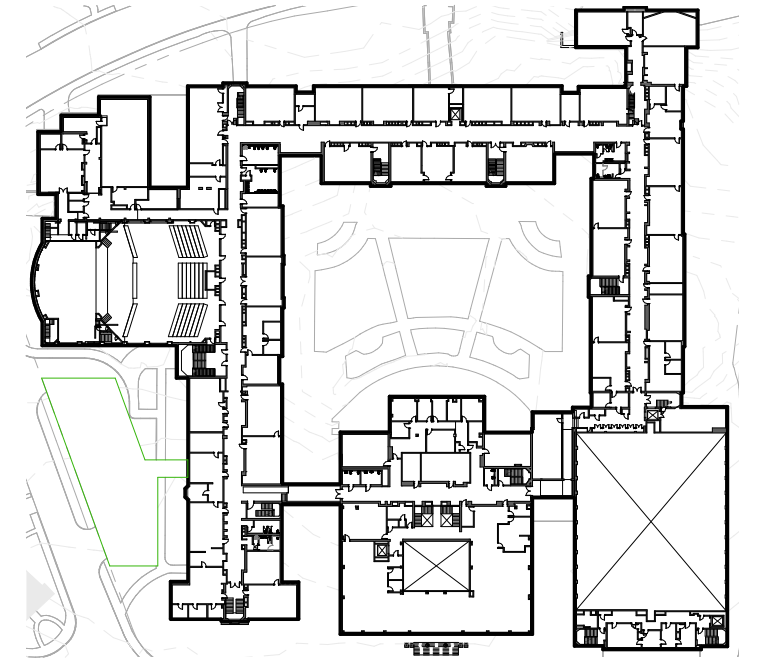
- |                             |                                   |
|-----------------------------|-----------------------------------|
| Administration & Guidance   | Outline Existing to be Demolished |
| Art & Music                 | Existing to Remain                |
| Auditorium & Drama          | Light Renovation at Existing      |
| Circulation                 | Code Compliance Renovation        |
| Common Shared               | Intensive Renovation              |
| Core Academic               | New Construction                  |
| Custodial & Maintenance     |                                   |
| Dining & Food Service       |                                   |
| Health & Physical Education |                                   |
| Media Center                |                                   |
| Medical                     |                                   |
| Other                       |                                   |
| Science                     |                                   |
| Special Education           |                                   |
| Support                     |                                   |
| Vocations & Technology      |                                   |

### 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

#### Option 4A & 4C | BHS 5-Classroom Addition



Second Floor - Program

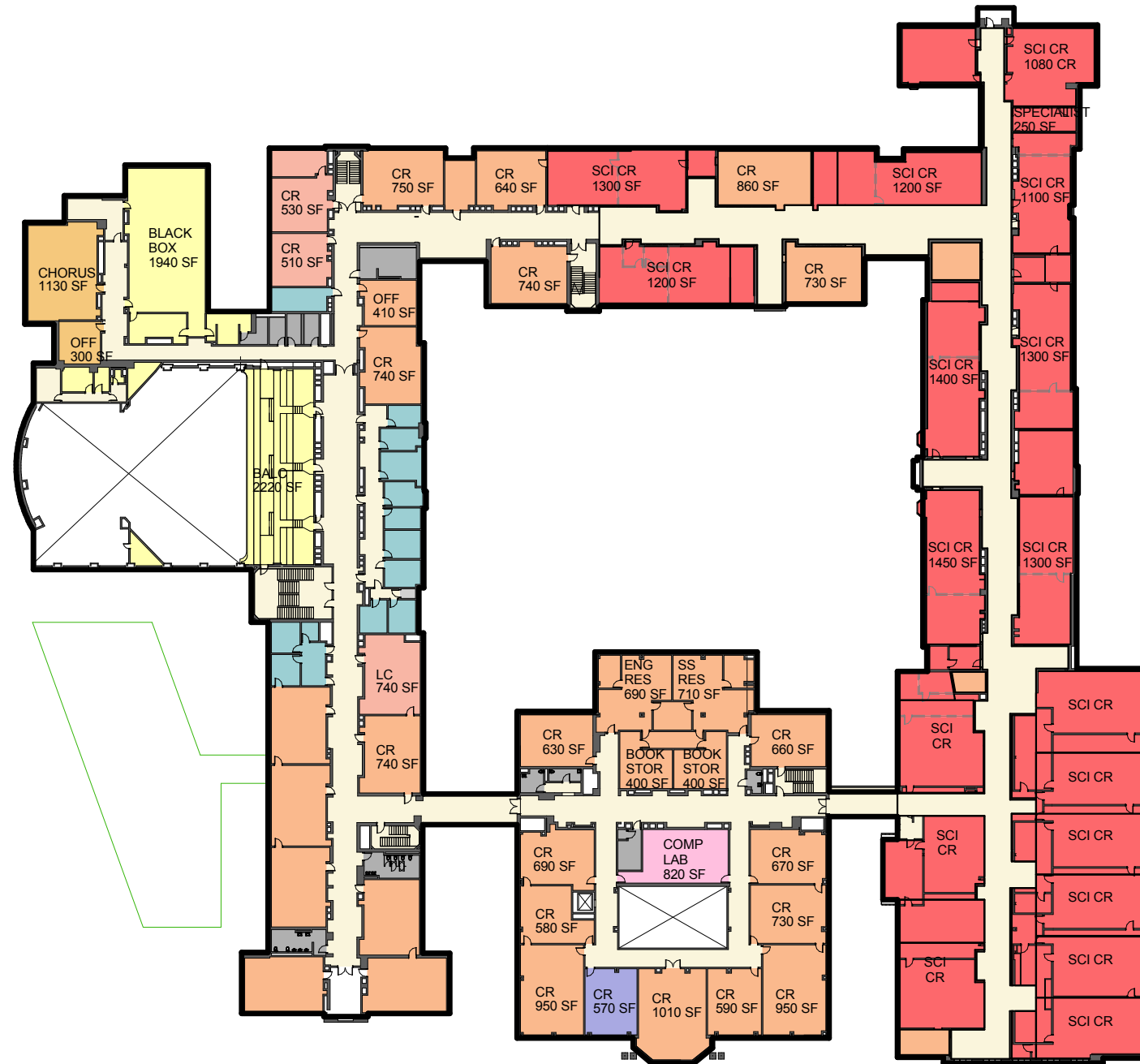


Second Floor - Diagram of Intervention

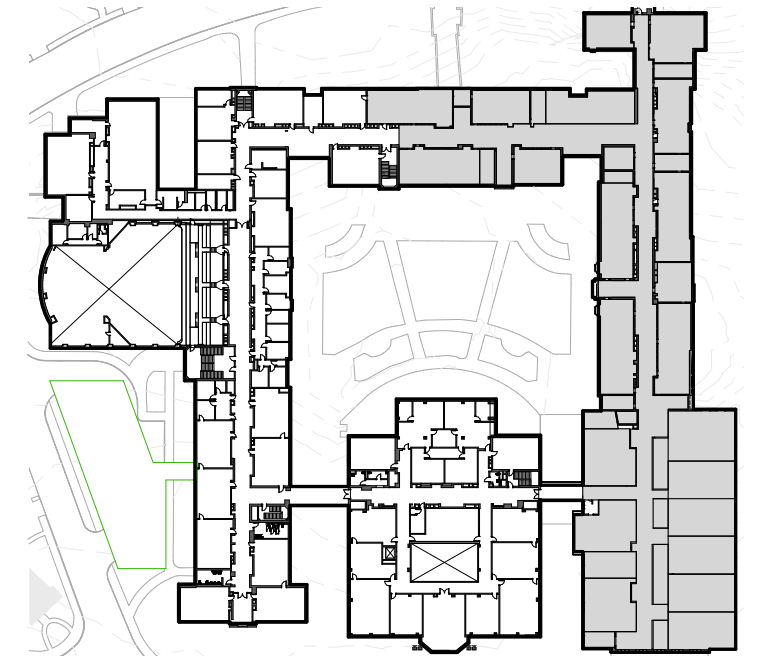
- |                                                                                                                                                    |                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Administration & Guidance   | <span style="display:inline-block; width:15px; border-bottom:1px dashed black;"></span> Outline Existing to be Demolished                                                                                                         |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFD700; border:1px solid black;"></span> Art & Music                 | <span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span> Existing to Remain                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFFF00; border:1px solid black;"></span> Auditorium & Drama          | <span style="display:inline-block; width:15px; height:15px; border:1px solid black; background-image: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></span> Light Renovation at Existing |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFFACD; border:1px solid black;"></span> Circulation                 | <span style="display:inline-block; width:15px; height:15px; background-color:#4169E1; border:1px solid black;"></span> Code Compliance Renovation                                                                                 |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFB6C1; border:1px solid black;"></span> Common Shared               | <span style="display:inline-block; width:15px; height:15px; background-color:#A9A9A9; border:1px solid black;"></span> Intensive Renovation                                                                                       |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FFA07A; border:1px solid black;"></span> Core Academic               | <span style="display:inline-block; width:15px; border-bottom:1px solid green;"></span> New Construction                                                                                                                           |
| <span style="display:inline-block; width:15px; height:15px; background-color:#D3D3D3; border:1px solid black;"></span> Custodial & Maintenance     |                                                                                                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#90EE90; border:1px solid black;"></span> Dining & Food Service       |                                                                                                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Health & Physical Education |                                                                                                                                                                                                                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:#FF69B4; border:1px solid black;"></span> Media Center                |                                                                                                                                                                                                                                   |
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| <span style="display:inline-block; width:15px; height:15px; background-color:#FFA500; border:1px solid black;"></span> Special Education           |                                                                                                                                                                                                                                   |
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### 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

#### Option 4A & 4C | BHS 5-Classroom Addition



Third Floor - Program



Third Floor - Diagram of Intervention

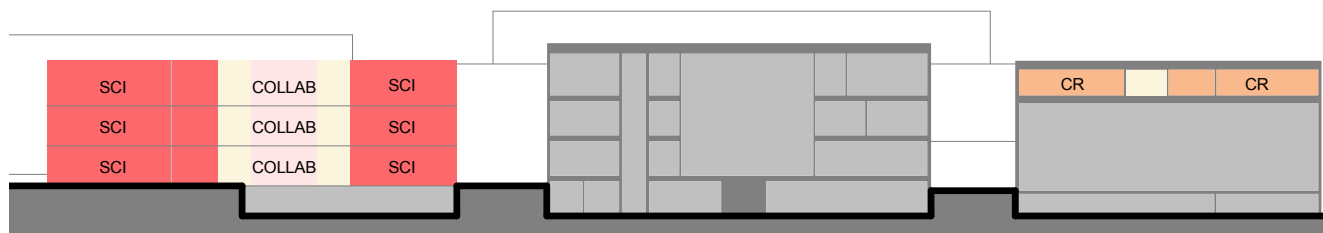
- |                             |                                   |
|-----------------------------|-----------------------------------|
| Administration & Guidance   | Outline Existing to be Demolished |
| Art & Music                 | Existing to Remain                |
| Auditorium & Drama          | Light Renovation at Existing      |
| Circulation                 | Code Compliance Renovation        |
| Common Shared               | Intensive Renovation              |
| Core Academic               | New Construction                  |
| Custodial & Maintenance     |                                   |
| Dining & Food Service       |                                   |
| Health & Physical Education |                                   |
| Media Center                |                                   |
| Medical                     |                                   |
| Other                       |                                   |
| Science                     |                                   |
| Special Education           |                                   |
| Support                     |                                   |
| Vocations & Technology      |                                   |

## 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

### Option 4B & 4D | BHS STEM-Wing Addition and 3rd-Floor Renovations



Massing



Section

Option 4B and Option 4D both propose new construction of a three-story addition to the Roberts Wing as a STEM wing.

Six (6) Science classrooms/ labs are stacked on each of three floor levels, supported by two Maker Spaces, teacher offices, and two collaborative Learning Commons. The proximity of the six Science classrooms/ labs encourages collaboration between the Science classrooms. The location of clusters of Science classrooms/ labs on three levels distributes Science within the School to encourage more interdisciplinary work. With all Science classrooms/ labs in the new STEM wing, the existing Science wing is renovated for classroom and collaborative space. A new Culinary Arts Kitchen/ Café on the first floor enhances this program by providing the opportunity to serve the public.

**Renovate Existing BHS 3rd Floor Science into Classrooms and Collaborative Learning Space**

36,500 sf

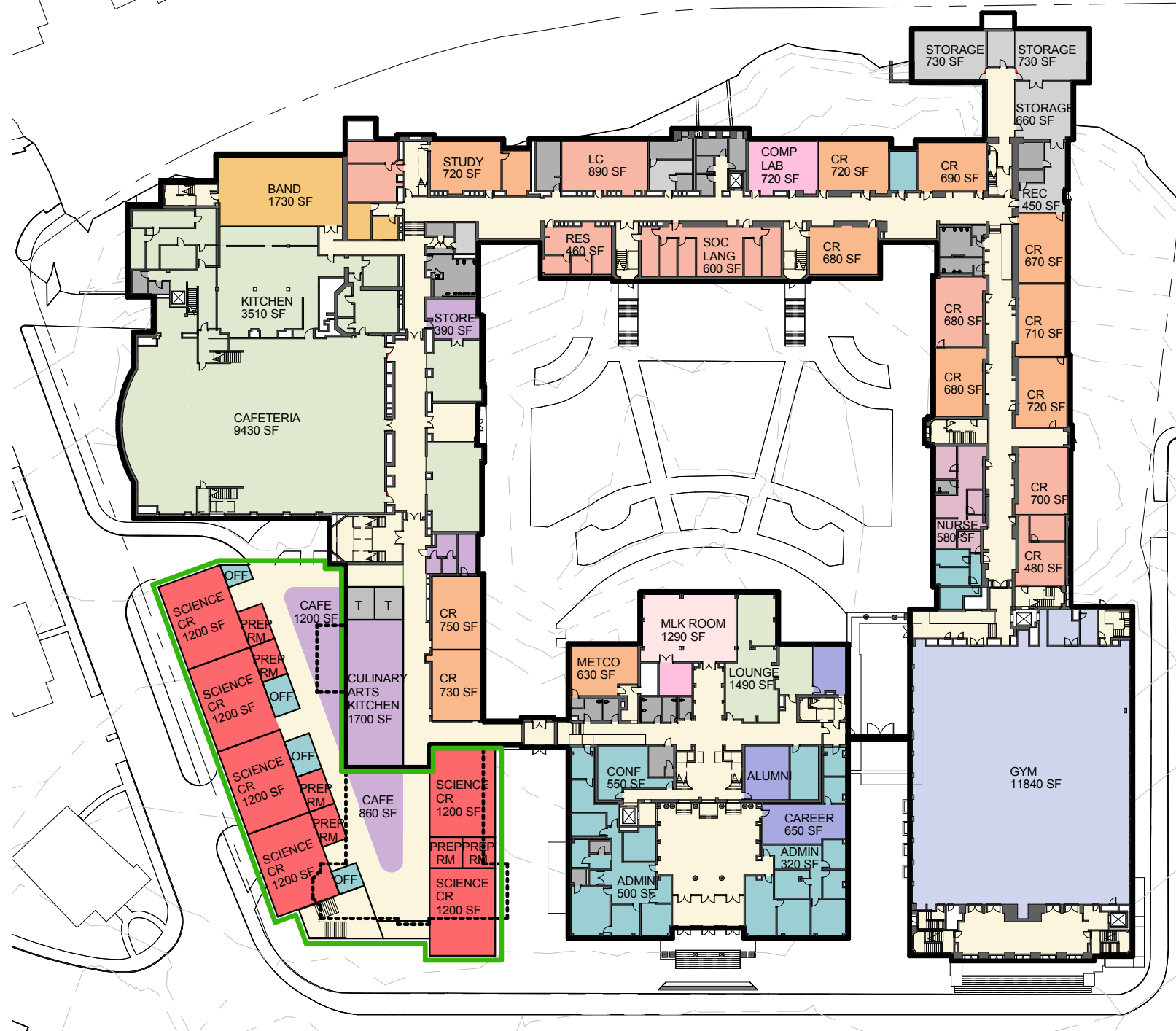
**New Construction at BHS-Greenough Building**

51,650 sf

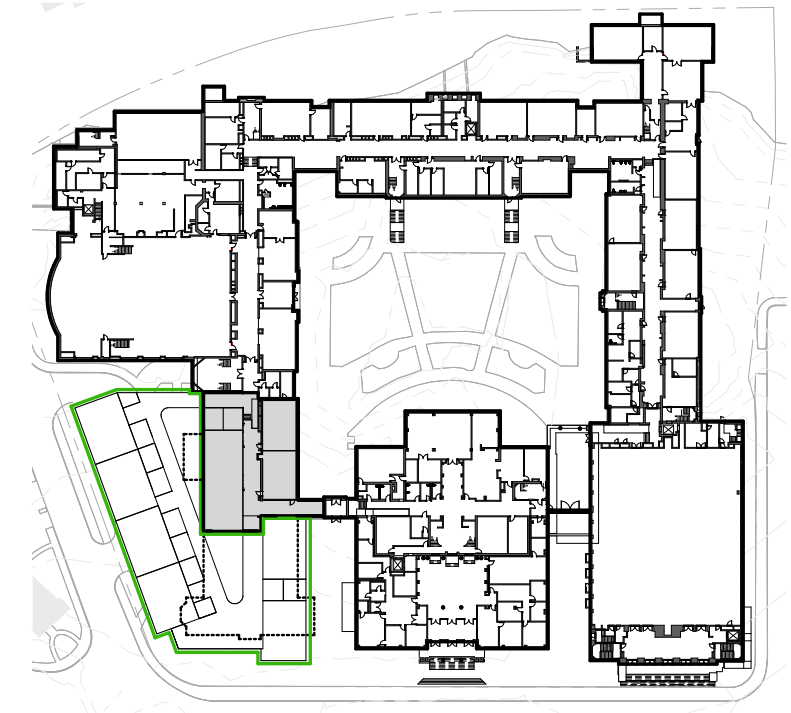


### 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

#### Option 4B & 4D | BHS STEM-Wing Addition and 3rd-Floor Renovations



First Floor - Program

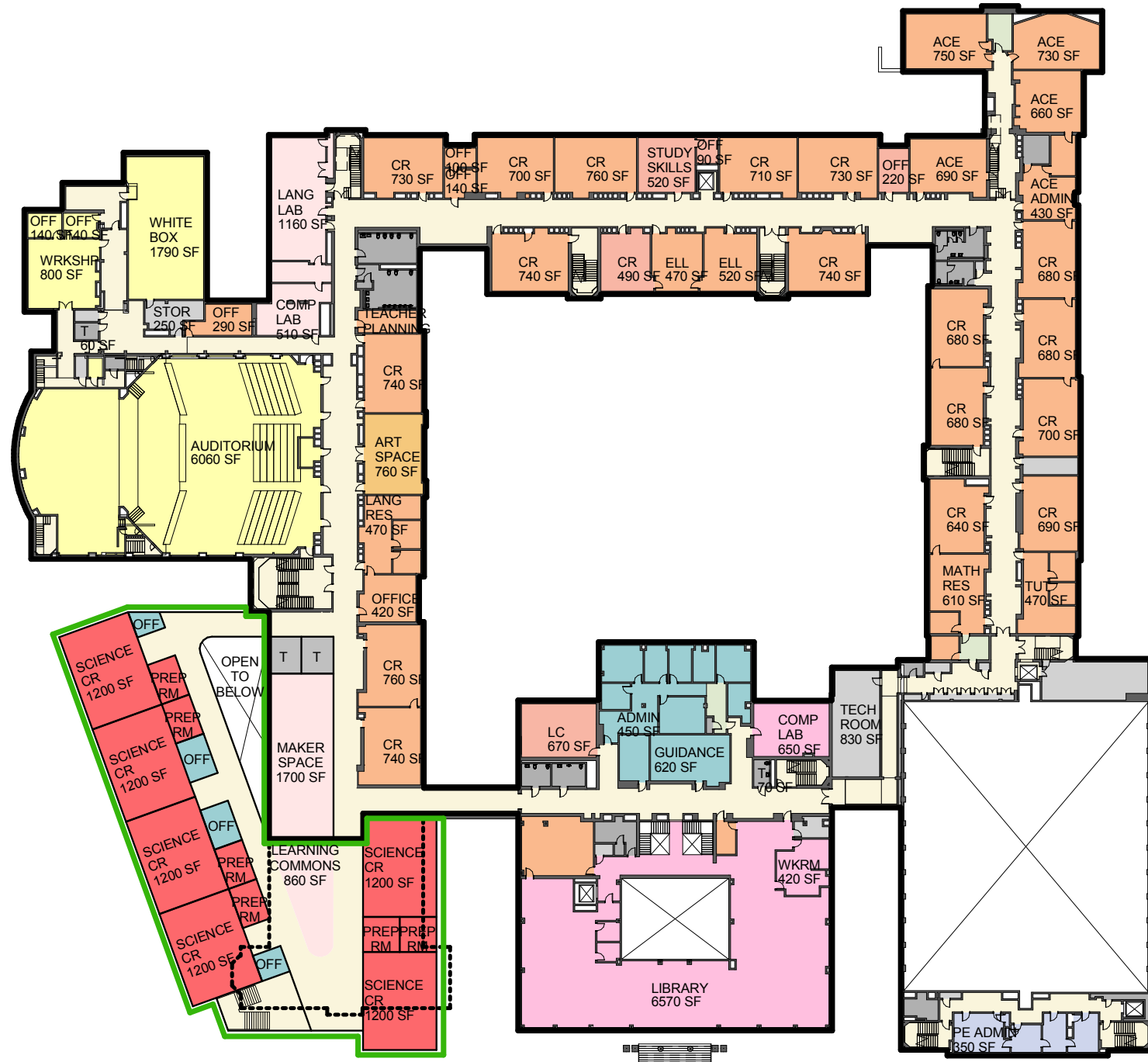


First Floor - Diagram of Intervention

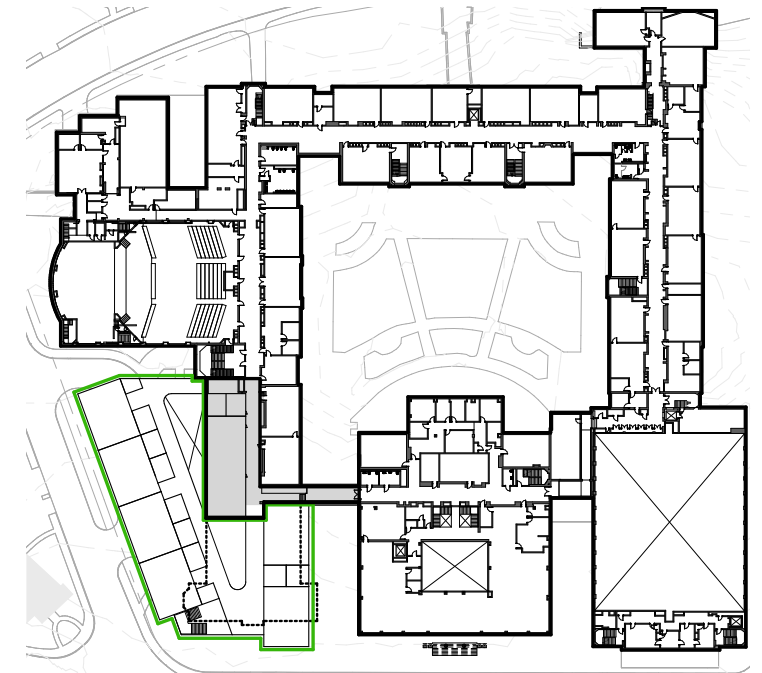


### 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

#### Option 4B & 4D | BHS STEM-Wing Addition and 3rd-Floor Renovations



Second Floor - Program



Second Floor - Diagram of Intervention

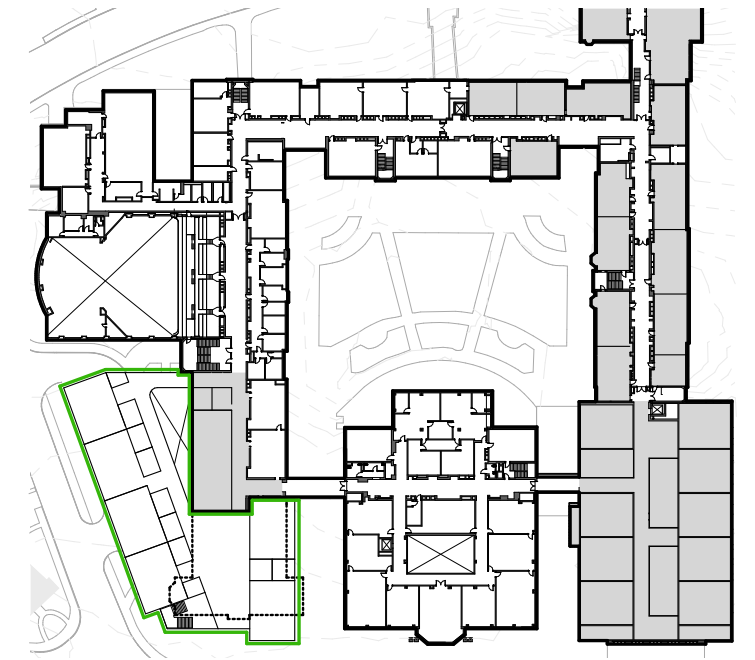
- |                                                                                                                                                      |                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <span style="display:inline-block; width:15px; height:15px; background-color: #ADD8E6; border: 1px solid black;"></span> Administration & Guidance   | <span style="display:inline-block; width:15px; border-bottom: 1px dashed black;"></span> Outline Existing to be Demolished                                                                                                                     |
| <span style="display:inline-block; width:15px; height:15px; background-color: #FFD700; border: 1px solid black;"></span> Art & Music                 | <span style="display:inline-block; width:15px; height:15px; border: 1px solid black;"></span> Existing to Remain                                                                                                                               |
| <span style="display:inline-block; width:15px; height:15px; background-color: #FFFF00; border: 1px solid black;"></span> Auditorium & Drama          | <span style="display:inline-block; width:15px; height:15px; border: 1px solid black; background-image: linear-gradient(to right, transparent 49%, #ccc 49% 51%, #ccc 51% 99%); background-size: 4px 4px;"></span> Light Renovation at Existing |
| <span style="display:inline-block; width:15px; height:15px; background-color: #FFFACD; border: 1px solid black;"></span> Circulation                 | <span style="display:inline-block; width:15px; height:15px; background-color: #4169E1; border: 1px solid black;"></span> Code Compliance Renovation                                                                                            |
| <span style="display:inline-block; width:15px; height:15px; background-color: #FFC0CB; border: 1px solid black;"></span> Common Shared               | <span style="display:inline-block; width:15px; height:15px; background-color: #A9A9A9; border: 1px solid black;"></span> Intensive Renovation                                                                                                  |
| <span style="display:inline-block; width:15px; height:15px; background-color: #FFDAB9; border: 1px solid black;"></span> Core Academic               | <span style="display:inline-block; width:15px; height:15px; border: 2px solid green;"></span> New Construction                                                                                                                                 |
| <span style="display:inline-block; width:15px; height:15px; background-color: #D3D3D3; border: 1px solid black;"></span> Custodial & Maintenance     |                                                                                                                                                                                                                                                |
| <span style="display:inline-block; width:15px; height:15px; background-color: #90EE90; border: 1px solid black;"></span> Dining & Food Service       |                                                                                                                                                                                                                                                |
| <span style="display:inline-block; width:15px; height:15px; background-color: #ADD8E6; border: 1px solid black;"></span> Health & Physical Education |                                                                                                                                                                                                                                                |
| <span style="display:inline-block; width:15px; height:15px; background-color: #FFB6C1; border: 1px solid black;"></span> Media Center                |                                                                                                                                                                                                                                                |
| <span style="display:inline-block; width:15px; height:15px; background-color: #FFB6C1; border: 1px solid black;"></span> Medical                     |                                                                                                                                                                                                                                                |
| <span style="display:inline-block; width:15px; height:15px; background-color: #6A5ACD; border: 1px solid black;"></span> Other                       |                                                                                                                                                                                                                                                |
| <span style="display:inline-block; width:15px; height:15px; background-color: #FF0000; border: 1px solid black;"></span> Science                     |                                                                                                                                                                                                                                                |
| <span style="display:inline-block; width:15px; height:15px; background-color: #FFA07A; border: 1px solid black;"></span> Special Education           |                                                                                                                                                                                                                                                |
| <span style="display:inline-block; width:15px; height:15px; background-color: #A9A9A9; border: 1px solid black;"></span> Support                     |                                                                                                                                                                                                                                                |
| <span style="display:inline-block; width:15px; height:15px; background-color: #9370DB; border: 1px solid black;"></span> Vocations & Technology      |                                                                                                                                                                                                                                                |

### 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

#### Option 4B & 4D | BHS STEM-Wing Addition and 3rd-Floor Renovations



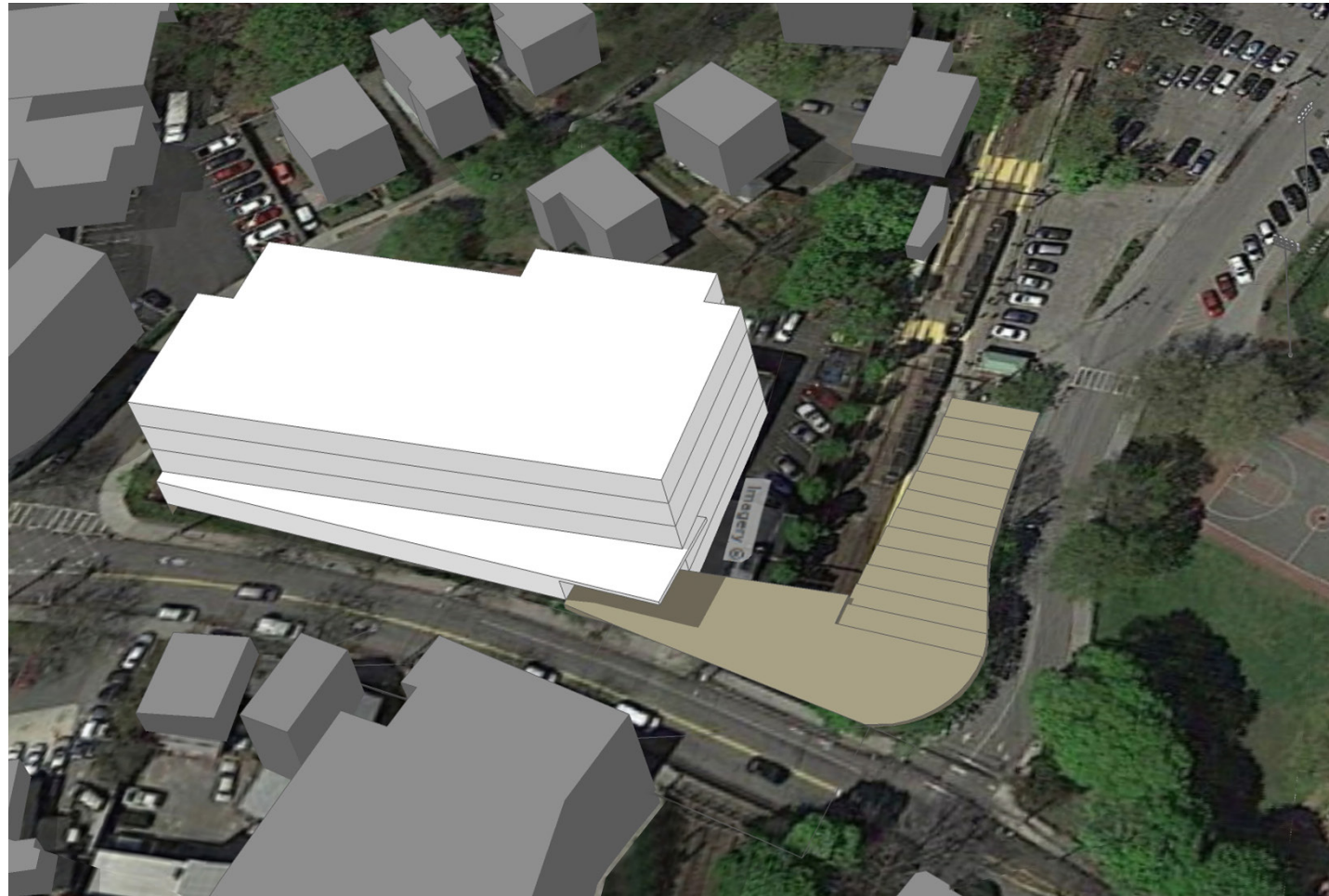
Third Floor - Program



Third Floor - Diagram of Intervention

- |                             |                                   |
|-----------------------------|-----------------------------------|
| Administration & Guidance   | Outline Existing to be Demolished |
| Art & Music                 | Existing to Remain                |
| Auditorium & Drama          | Light Renovation at Existing      |
| Circulation                 | Code Compliance Renovation        |
| Common Shared               | Intensive Renovation              |
| Core Academic               | New Construction                  |
| Custodial & Maintenance     |                                   |
| Dining & Food Service       |                                   |
| Health & Physical Education |                                   |
| Media Center                |                                   |
| Medical                     |                                   |
| Other                       |                                   |
| Science                     |                                   |
| Special Education           |                                   |
| Support                     |                                   |
| Vocations & Technology      |                                   |

### 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements



Massing

The Cypress Street building in Option 4A and Option 4B is programmed as a 9th Grade academic building. The building contains the academic, administrative, and community spaces, including Dining/ Kitchen, Art, Music, and the Library, necessary to support the 9th Grade enrollment. The building serves as a transition between the neighborhood-specific elementary schools and the single Brookline High School. 9th Grade students travel to the Tappan Gym, the Unified Arts Building, and the Greenough building for athletic activities, visual and Consumer Education classes, and performance and advanced classes.

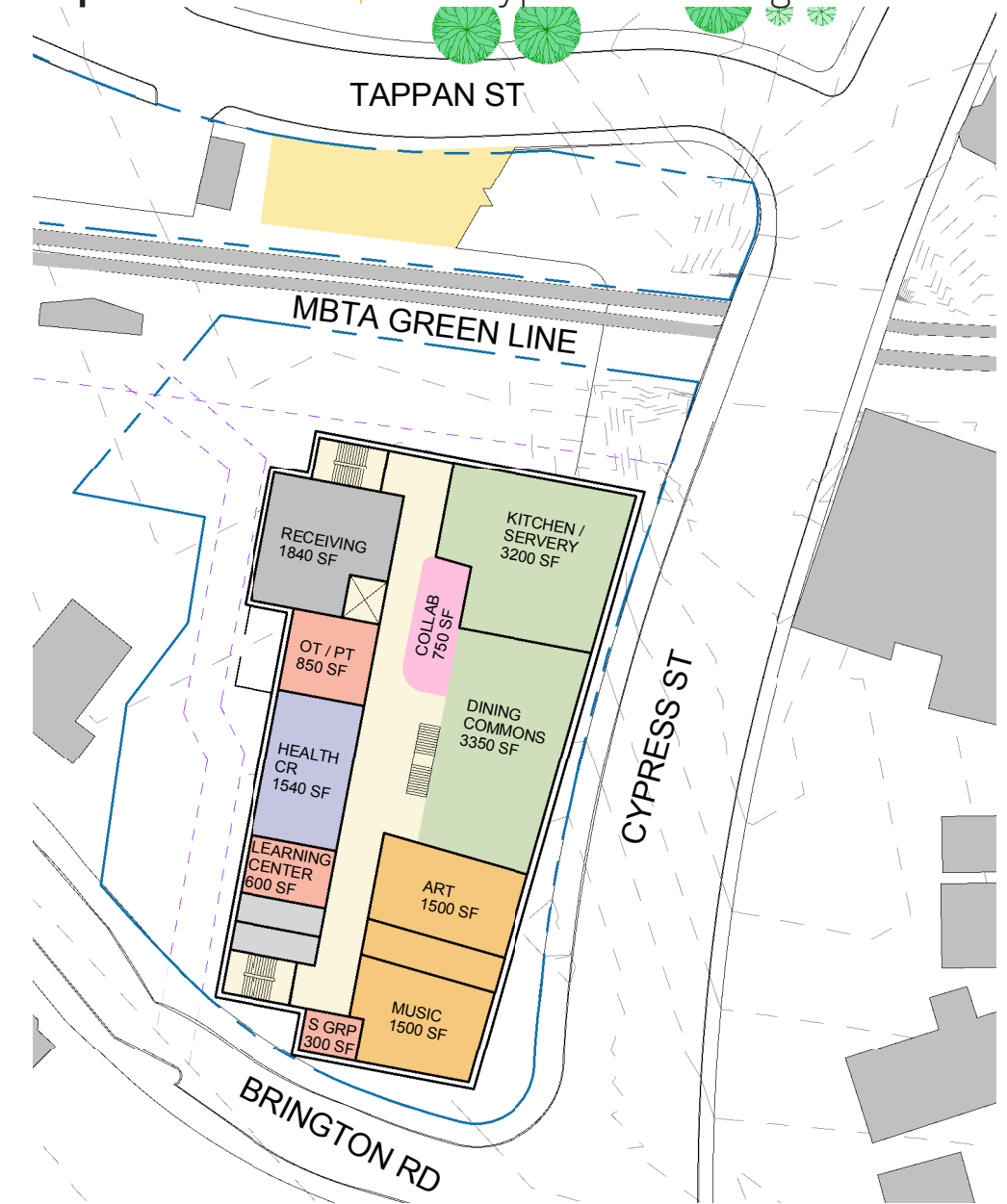
Option 4A and Option 4B construct the new building within the site of the 111 Cypress St property. An entrance plaza spans the MBTA tracks to provide an entrance from a campus pedestrian path along Tappan Street.

#### New Construction at Cypress Building:

109,810 sf

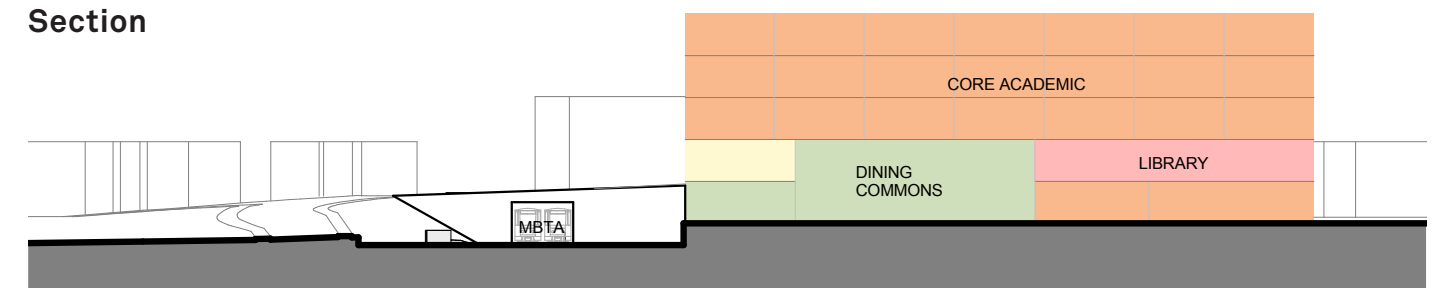
- Administration & Guidance
- Art & Music
- Auditorium & Drama
- Circulation
- Common Shared
- Core Academic
- Custodial & Maintenance
- Dining & Food Service
- Health & Physical Education
- Media Center
- Medical
- Other
- Science
- Special Education
- Support
- Vocations & Technology

#### Option 4A & 4B | New Cypress Building and Plaza



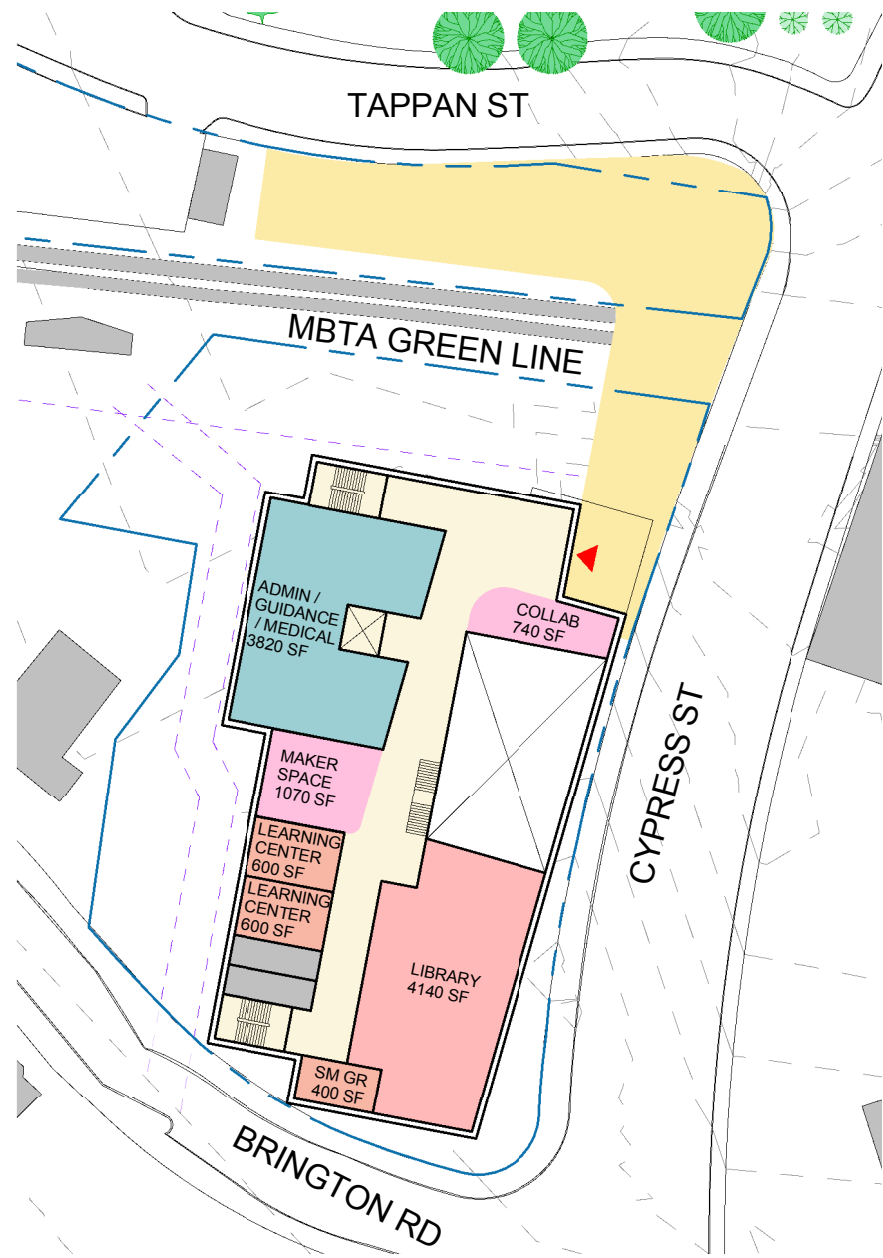
First Floor

#### Section



### 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

#### Option 4A & 4B | New Cypress Building and Plaza



Second Floor



Third Floor



Fourth Floor



Fifth Floor



### 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements



Massing

The Cypress Street building in Option 4C and Option 4D is programmed as a 9th Grade academic building. The building contains the academic, administrative, and community spaces, including Dining/ Kitchen, Art, Music, and the Library, necessary to support the 9th Grade enrollment. The building serves as a transition between the neighborhood-specific elementary schools and the single Brookline High School. 9th Grade students travel to the Tappan Gym, the Unified Arts Building, and the Greenough building for athletic activities, visual and Consumer Education classes, and performance and advanced classes.

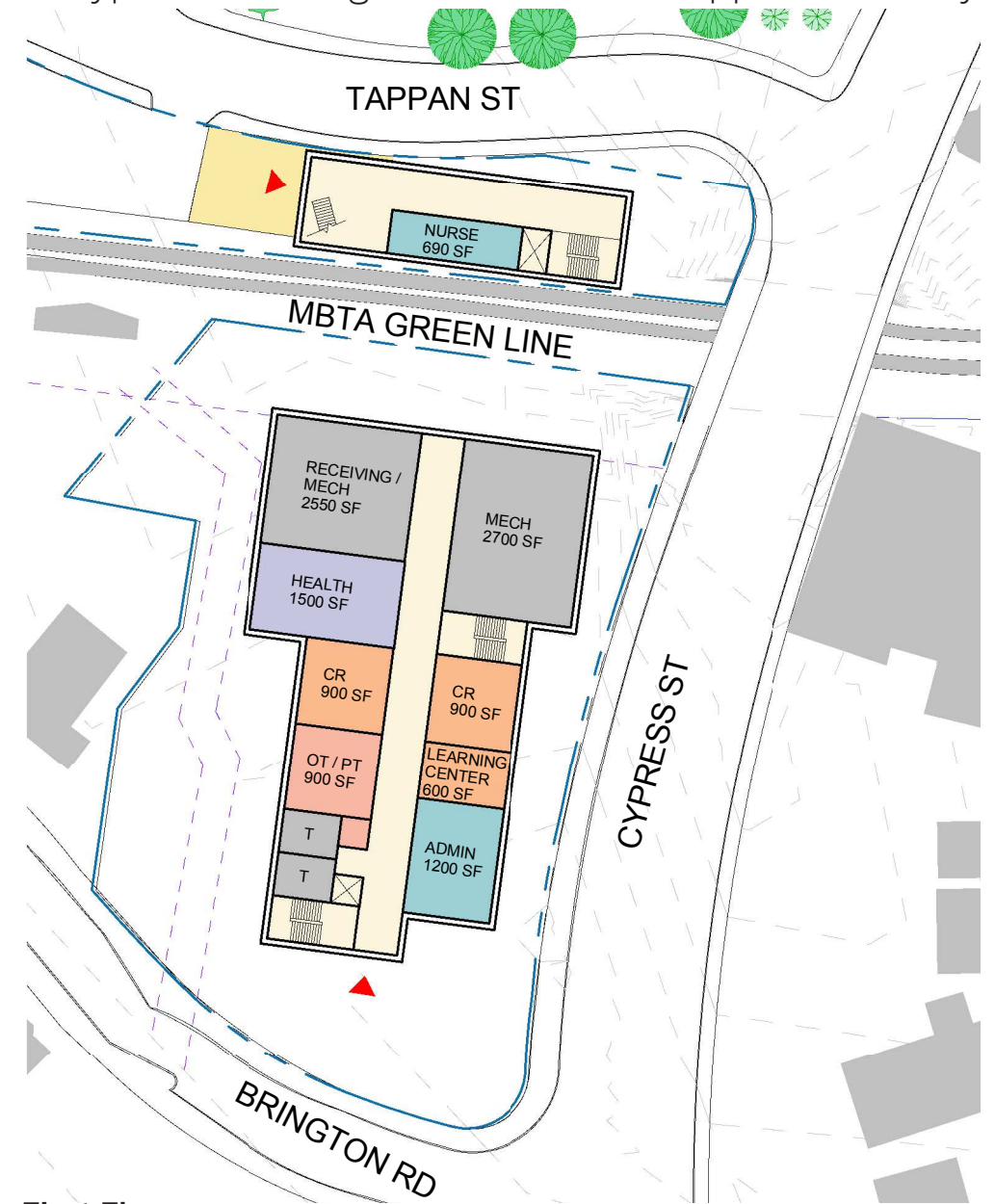
Option 4C and Option 4D constructs the new building at the 111 Cypress St property. The academic building spans the MBTA tracks and locates an entrance lobby directly on Tappan Street. The volume of the new building extends the BHS campus to Cypress Street. The pedestrian path and entrance to the new building are developed to reinforce the sense of a unified campus.

#### New Construction at Cypress Building:

112,700 sf

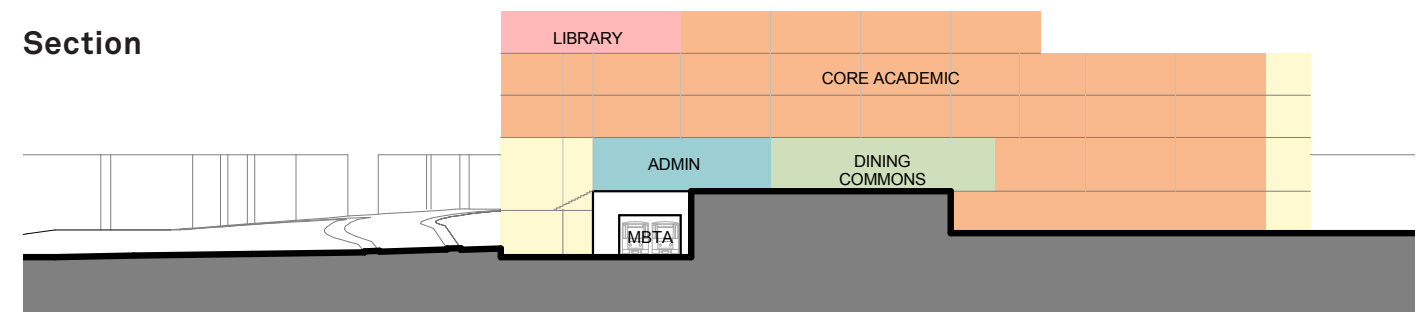
#### Option 4C & 4D | New Cypress Building over MBTA with Tappan St. Entry

- Administration & Guidance
- Art & Music
- Auditorium & Drama
- Circulation
- Common Shared
- Core Academic
- Custodial & Maintenance
- Dining & Food Service
- Health & Physical Education
- Media Center
- Medical
- Other
- Science
- Special Education
- Support
- Vocations & Technology



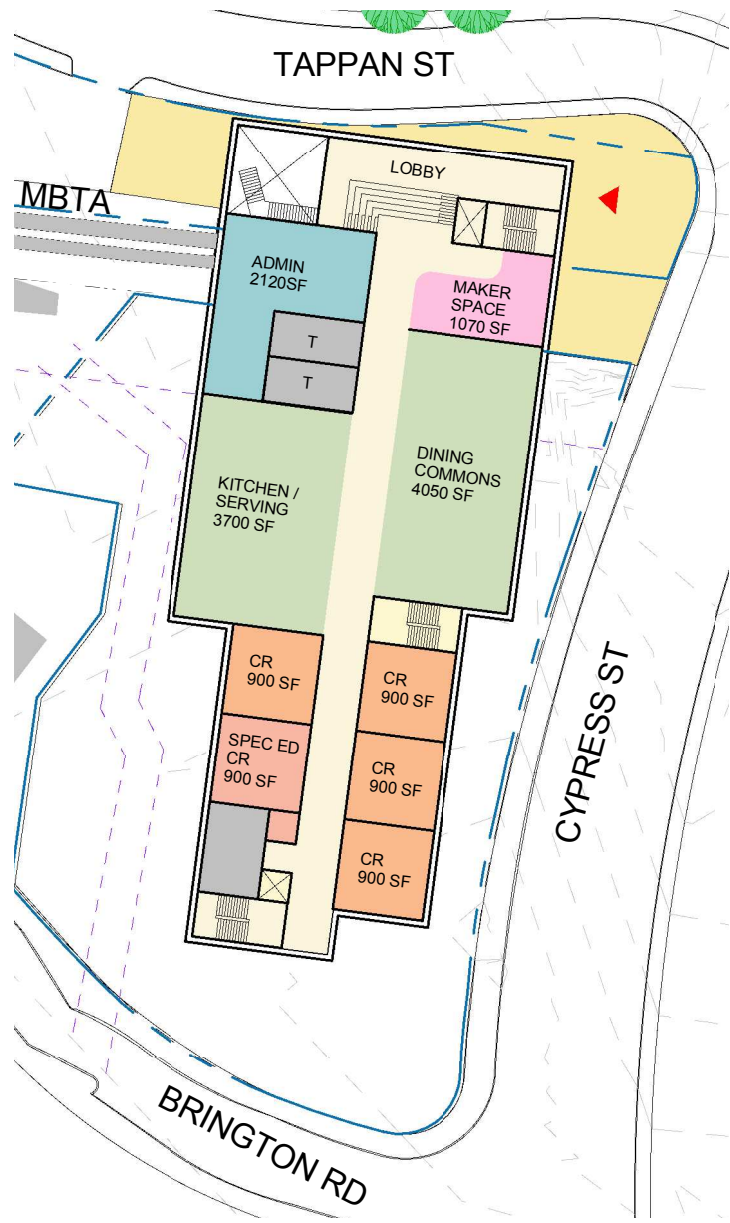
First Floor

#### Section

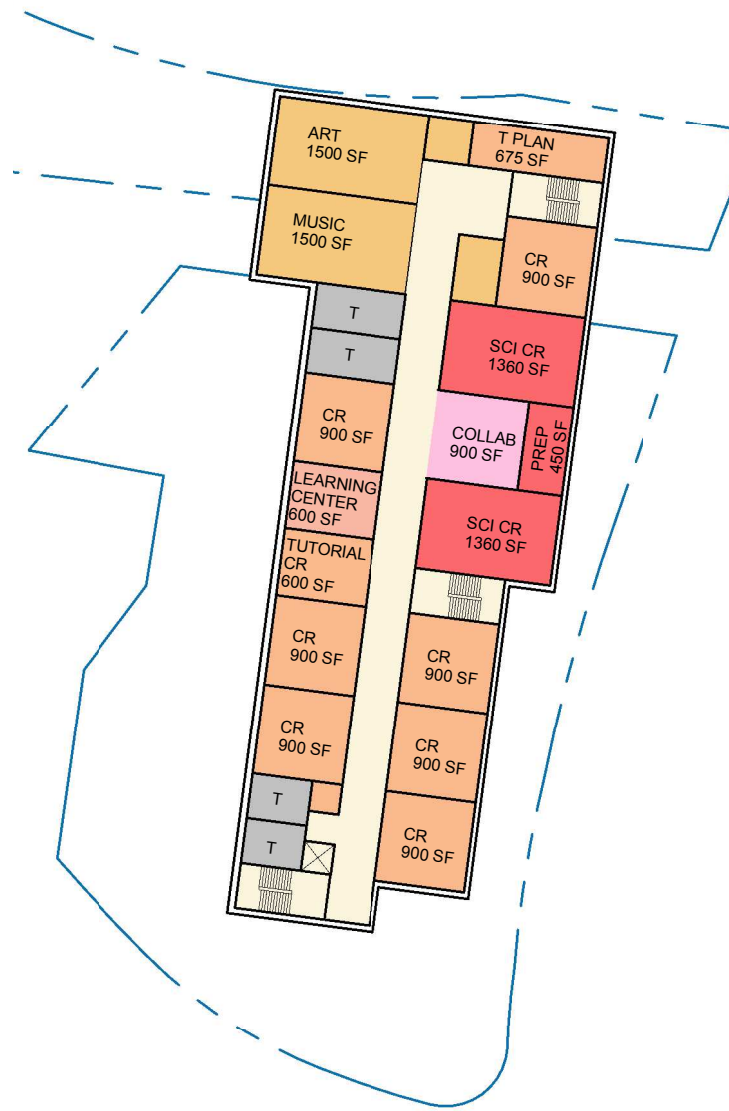


### 4. Option 4 | BHS Expansion at New Cypress Building and BHS Improvements

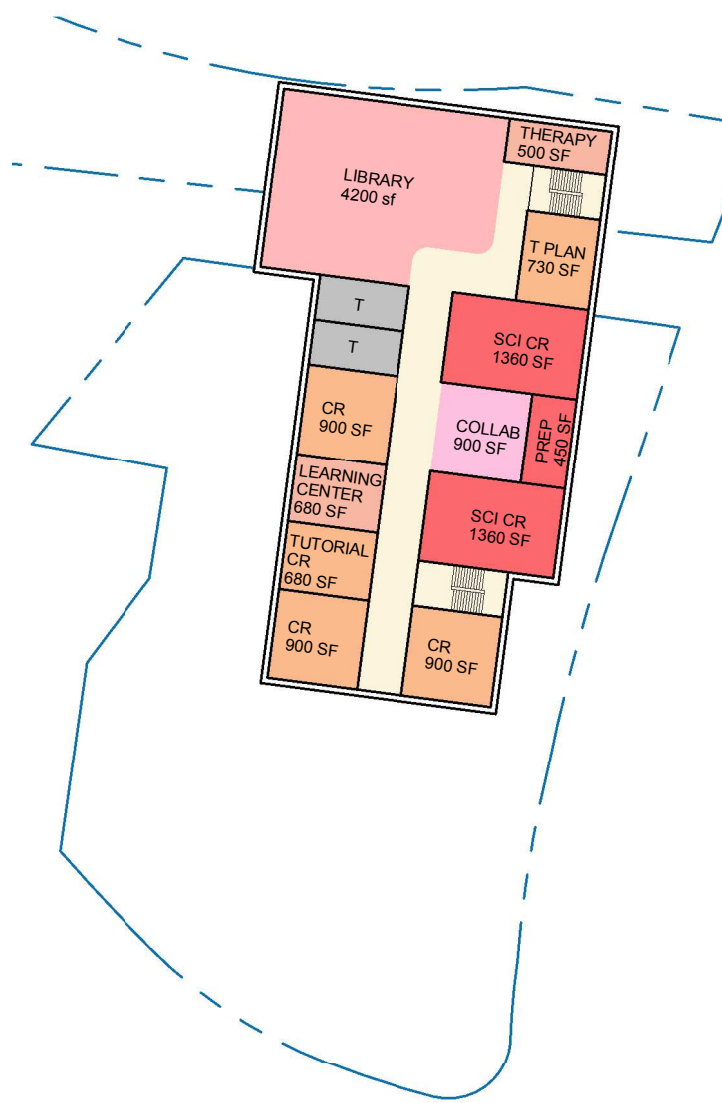
#### Option 4C & 4D | New Cypress Building over MBTA with Tappan St. Entry



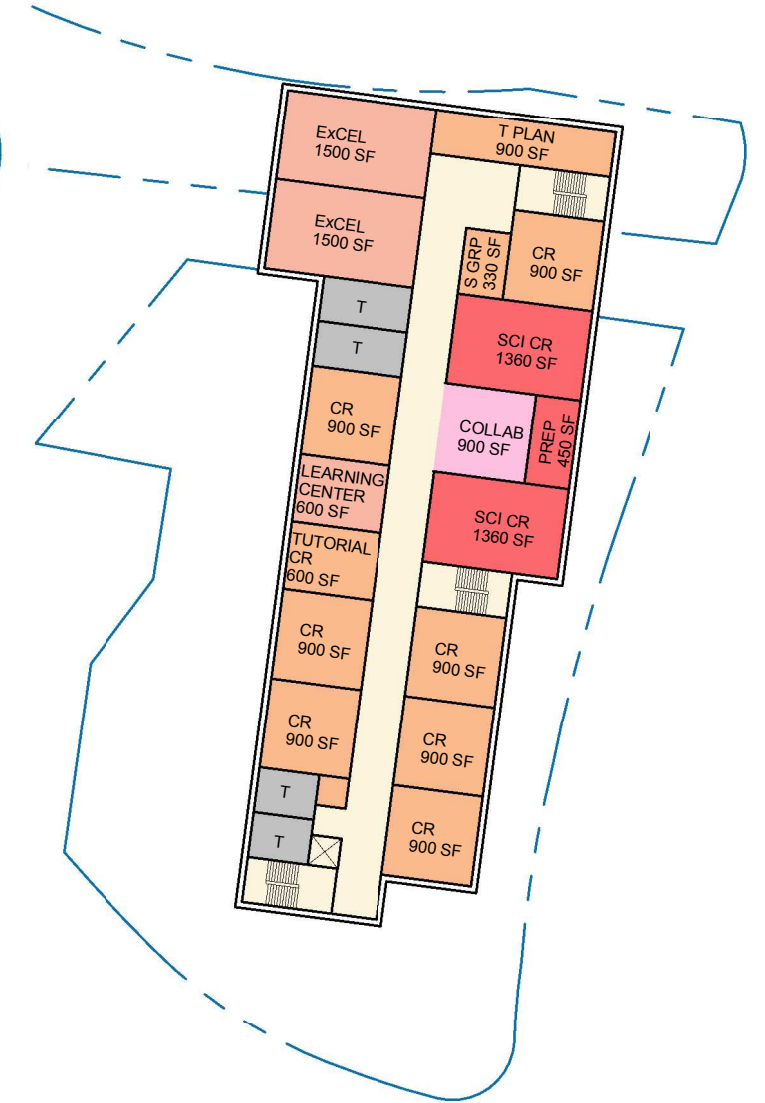
Second Floor



Third Floor



Fourth Floor

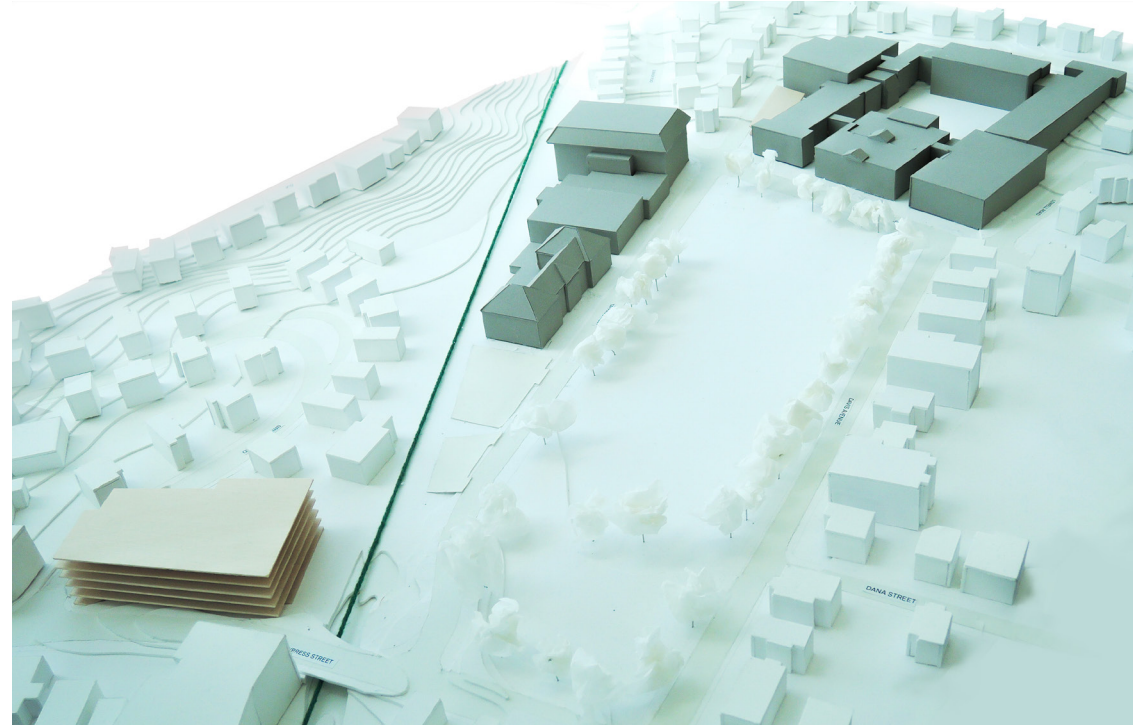


Fifth Floor

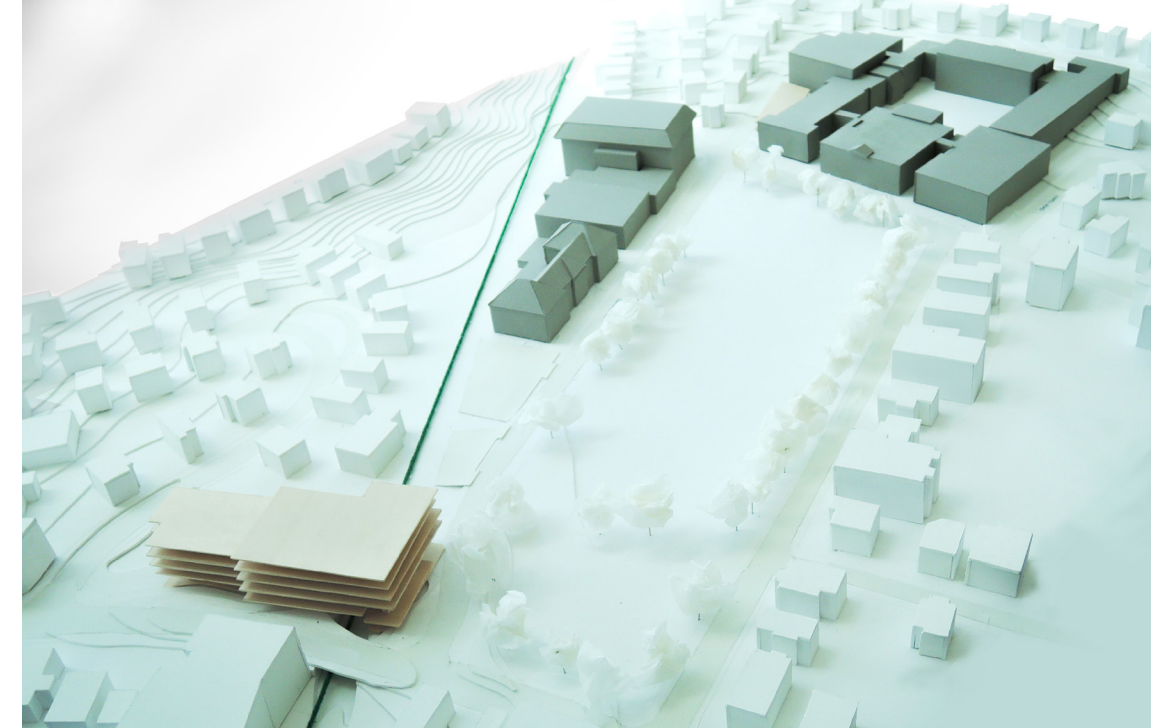


**4. Option 4** | BHS Expansion at New Cypress Building and BHS Improvements

**Option 4A** | BHS 5-Classroom Addition

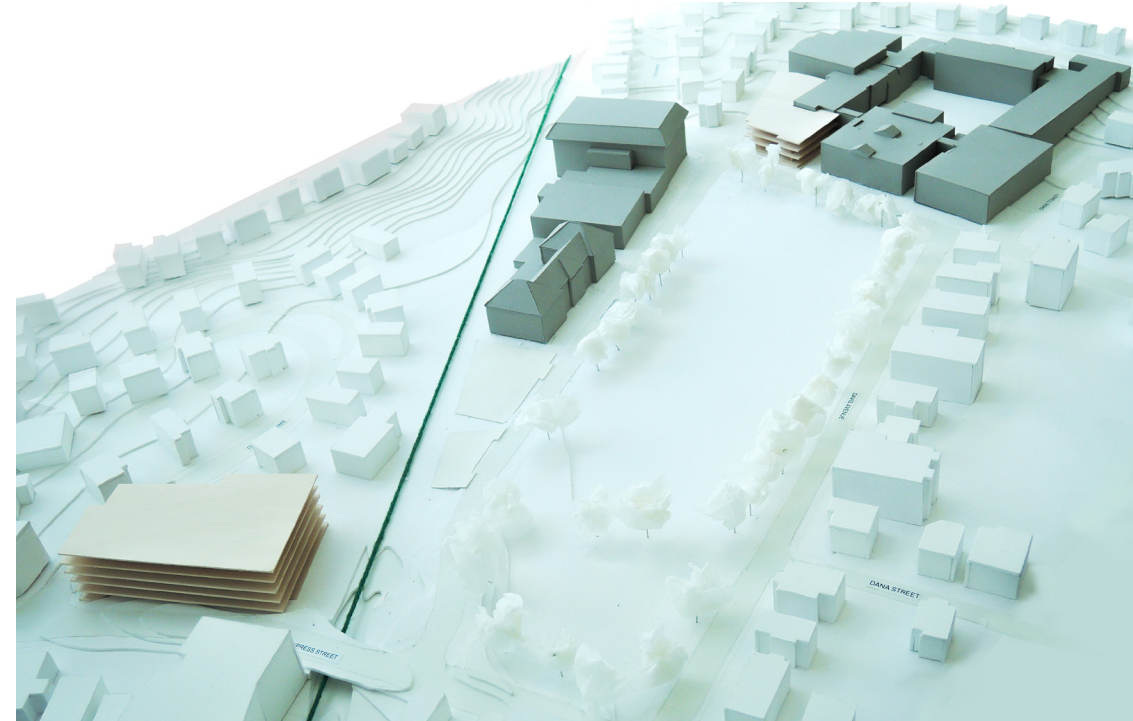


**Option 4C** | BHS 5-Classroom Addition



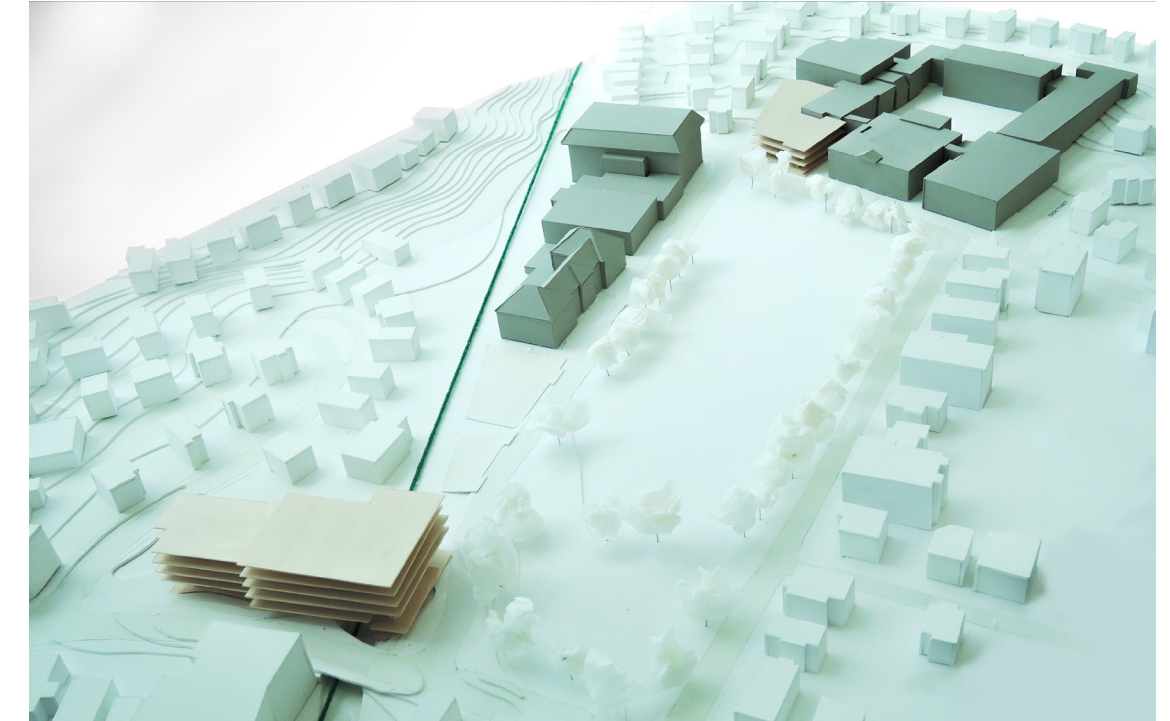
**Option 4A** | New Cypress Building and Plaza

**Option 4B** | BHS STEM-Wing Addition and 3rd-Floor Renovations



**Option 4C** | New Cypress Building over MBTA with Tappan St. Entry

**Option 4D** | BHS STEM-Wing Addition and 3rd-Floor Renovations



**Option 4B** | New Cypress Building and Plaza

**Option 4D** | New Cypress Building over MBTA with Tappan St. Entry



## 4. OPTIONAL PROJECTS

### OPTIONAL PROJECTS

Tappan Gym - Option 1 Minimal Renovations

Tappan Gym - Option 2 Moderate Expansion Competition & Practice Gym ( Note: part of BHS Option 2 State Standards )

Tappan Gym - Option 2.1 Min.Moderate Expansion with Practice Gym Only

Tappan Gym Option 3 Education Plan with Field House ( Note: part of BHS Option 3 Education Plan )

Unified Arts Building (UAB) - Interior Program Renovations

### OPTIONAL PROJECTS - CYPRESS FIELD

Option 1 - Field and Playground Renovation with Underground Parking

Option 2 - Field and Playground Renovation and Greenough Street Re-Alignment with Underground Parking

Option 3 Field and Playground Renovation with Diagonal Parking

Option 4 - Field and Playground Renovation and Greenough Street Re-Alignment with Diagonal Parking

Underground Parking at Cypress Field  
Underground Parking at New Cypress Academic Building

### OPTIONS EVALUATION & COMPARISON

Order of Magnitude Cost Comparison

Matrix of Options

Matrix of Optional Projects

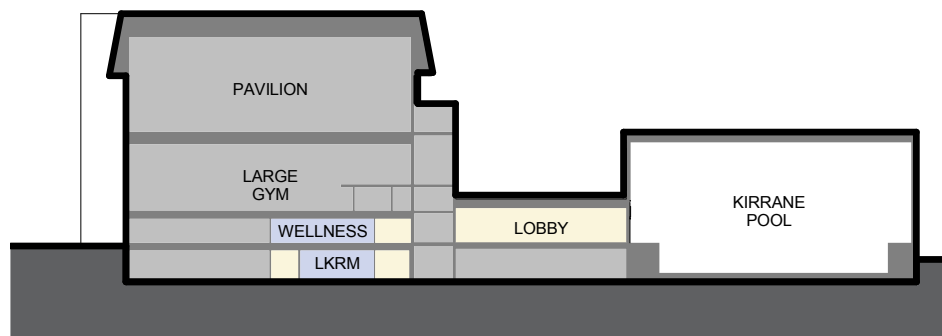
Order of Magnitude Cost Scenarios

## 4. OPTIONAL PROJECTS

### Tappan Gym Option 1 | Minimal Renovations



Massing

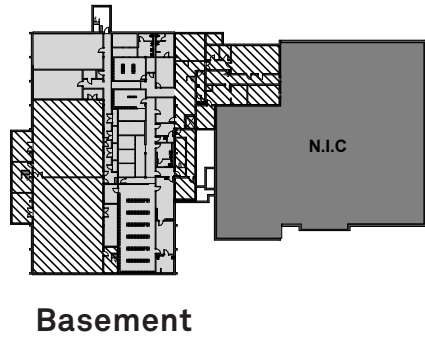
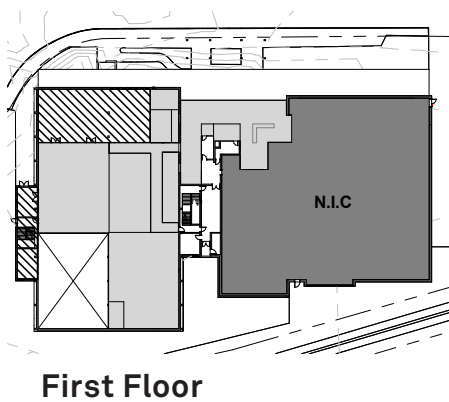
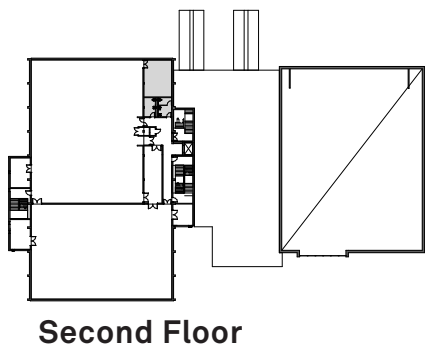
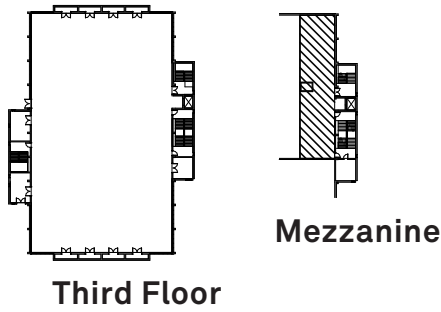


Section

## 4. OPTIONAL PROJECTS

### Tappan Gym Option 1 | Minimal Renovations

#### Extent of Renovation Plans



Tappan Gym Option 1 is a renovation of the existing facility. The renovation includes a Wellness Center, consolidated Trainer and Administration space, improved locker facilities, and a shared lobby for KIRRANE Pool and Tappan. Athletic spaces remain at present size and number.



The KIRRANE Pool remains operational.

#### Renovation and Total Area

74,870 sf

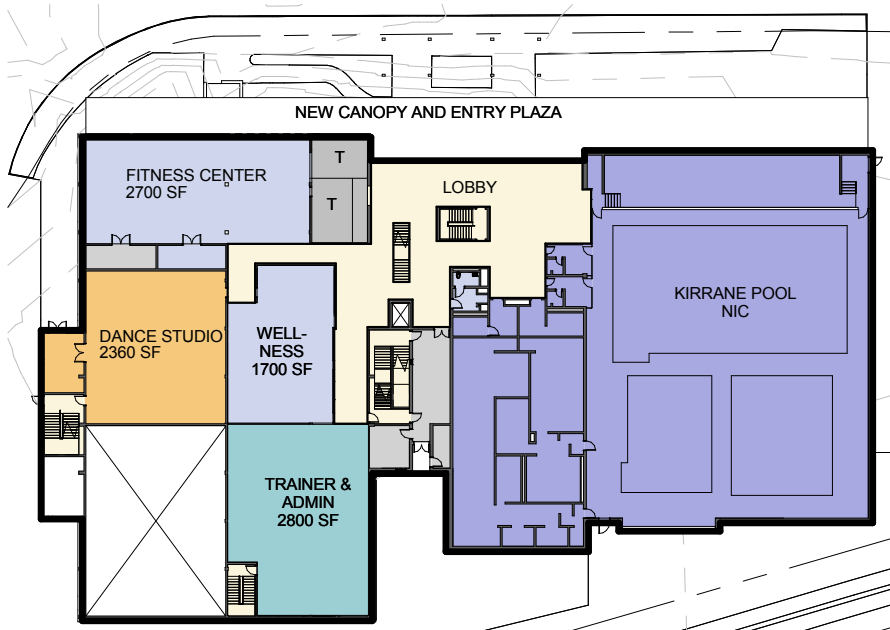
#### Project Cost

\$ 13,290,000

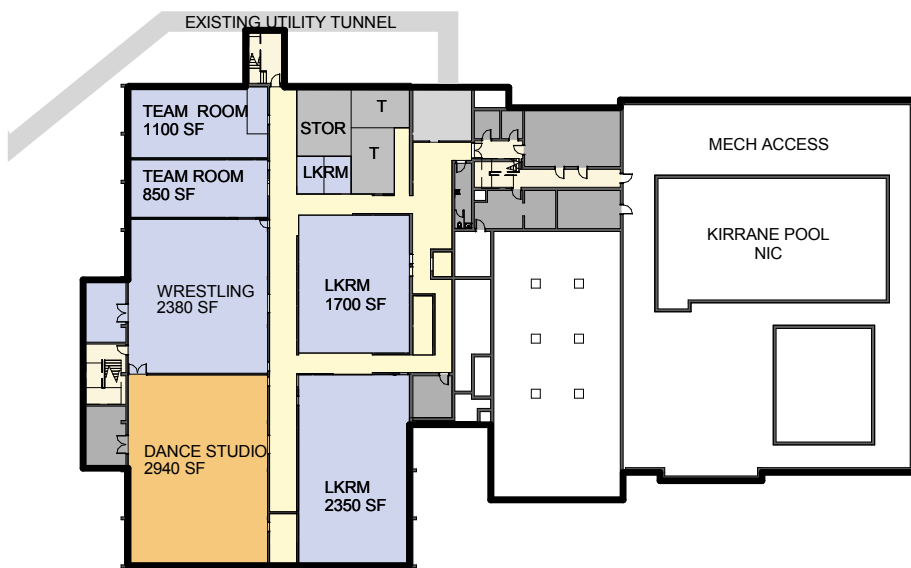
-  Existing to Remain
-  Light Renovation at Existing
-  Code Compliance Renovation
-  Intensive Renovation
-  New Construction

### 4. OPTIONAL PROJECTS

## Tappan Gym Option 1 | Minimal Renovations



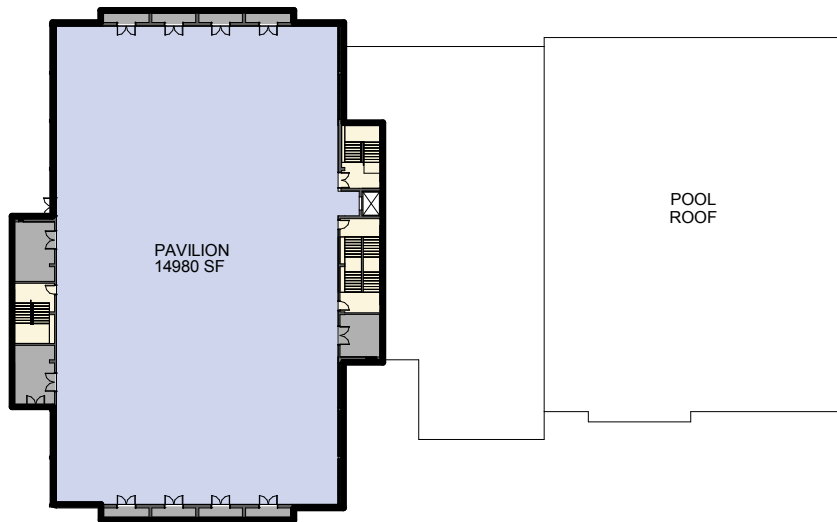
First Floor - Program



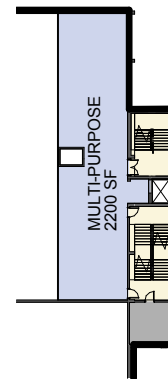
Basement - Program

## 4. OPTIONAL PROJECTS

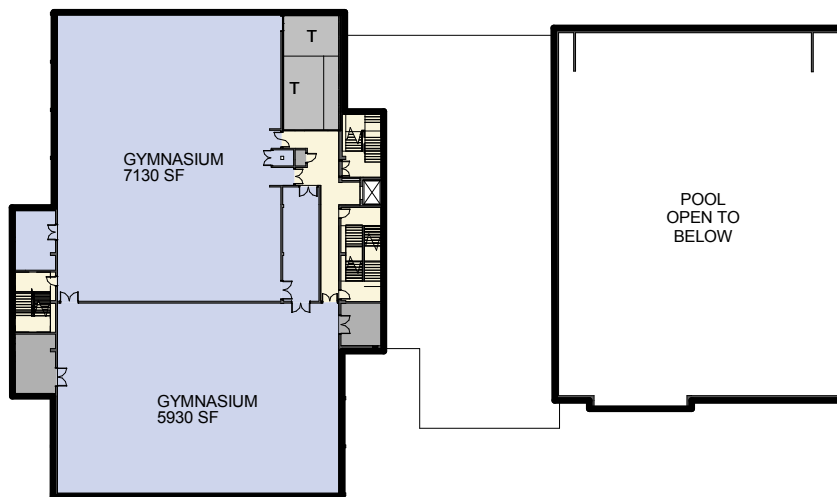
### Tappan Gym Option 1 | Minimal Renovations



Third Floor - Program



Mezzanine - Program



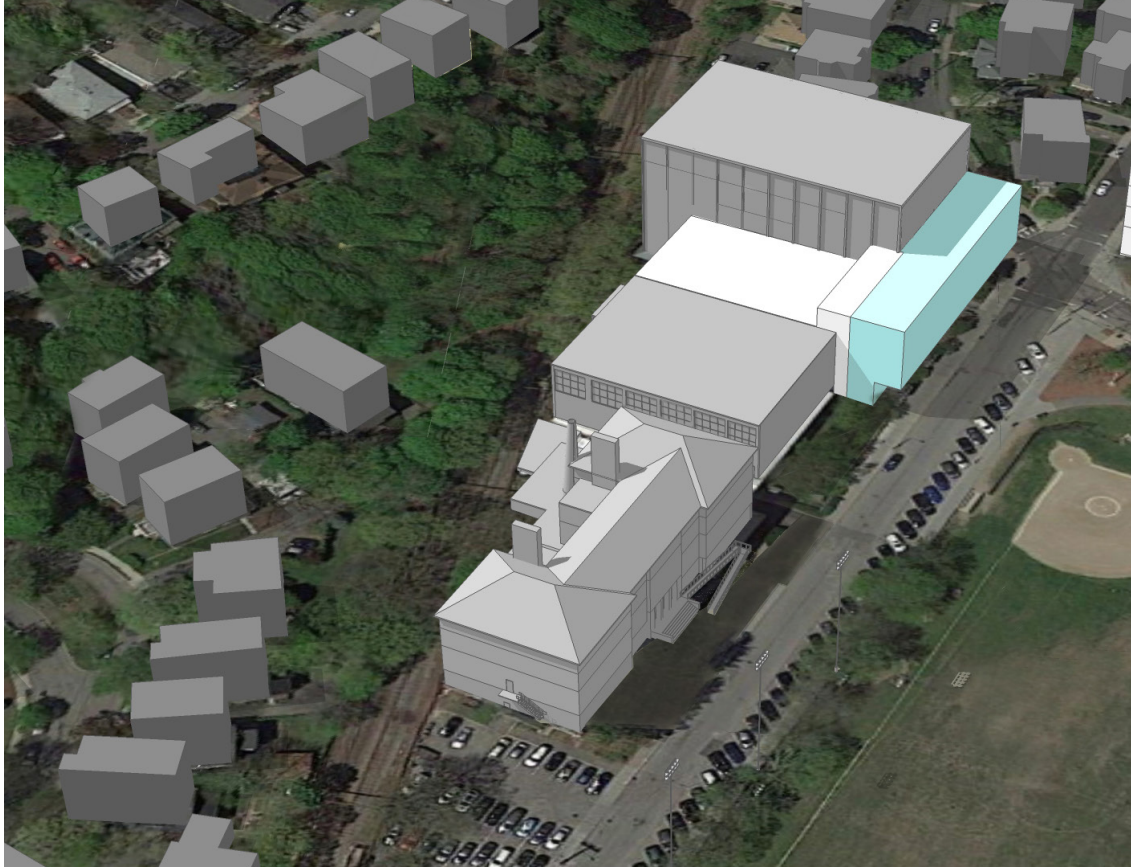
Second Floor - Program

- New Construction
- Administration & Guidance
- Art & Music
- Auditorium & Drama
- Circulation
- Common Shared
- Core Academic
- Custodial & Maintenance
- Dining & Food Service
- Health & Physical Education
- Media Center
- Medical
- Other
- Science
- Special Education
- Support
- Vocations & Technology

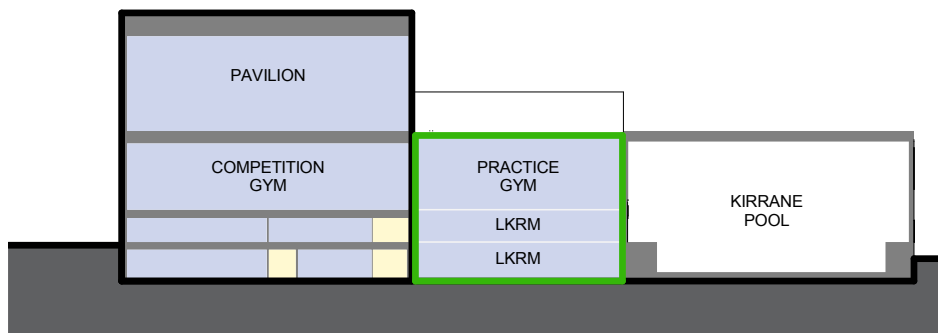


## 4. OPTIONAL PROJECTS

### Tappan Gym Option 2 | Moderate Expansion with a Competition & Practice Gym



Massing

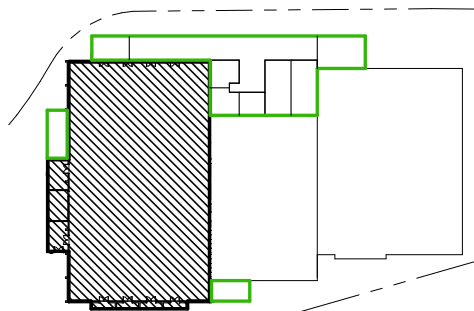


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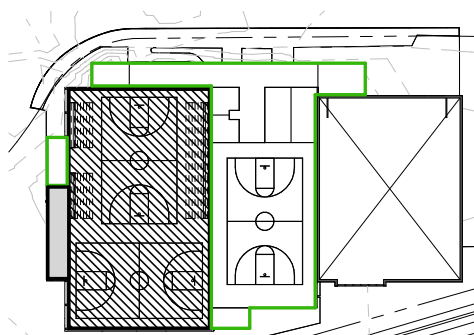
## 4. OPTIONAL PROJECTS

### Tappan Gym Option 2 | Moderate Expansion with a Competition & Practice Gym

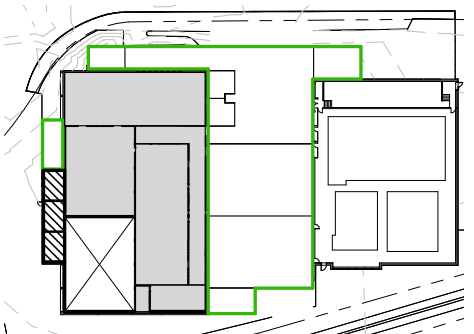
#### Extent of Renovation Plans



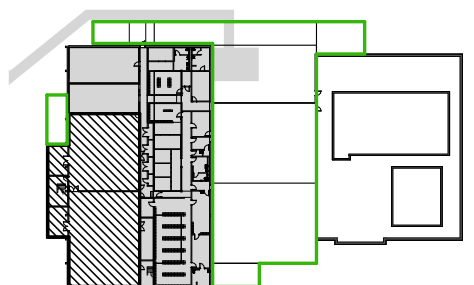
Third Floor



Second Floor



First Floor



Basement

Tappan Gym Option 2 includes the renovation of the existing Locker Rooms, Dance Studios, and Wrestling spaces, consolidated Trainer and Administration space, and the renovation of Locker Rooms into a Wellness Center.

The two gyms on the Second Floor are renovated into a Competition Gym with bleachers.

New construction along Tappan Street contains circulation, elevators and stairs, and toilet room facilities.

Additionally, a Small Gym is constructed adjacent to the new Competition Gym.

The Third Floor Pavilion athletic space remains and will be renovated.

The Kirrane Pool remains operational.

#### Renovation Area

60,330 sf

#### New Construction Area






49,300 sf

#### Total Area

109,630 sf

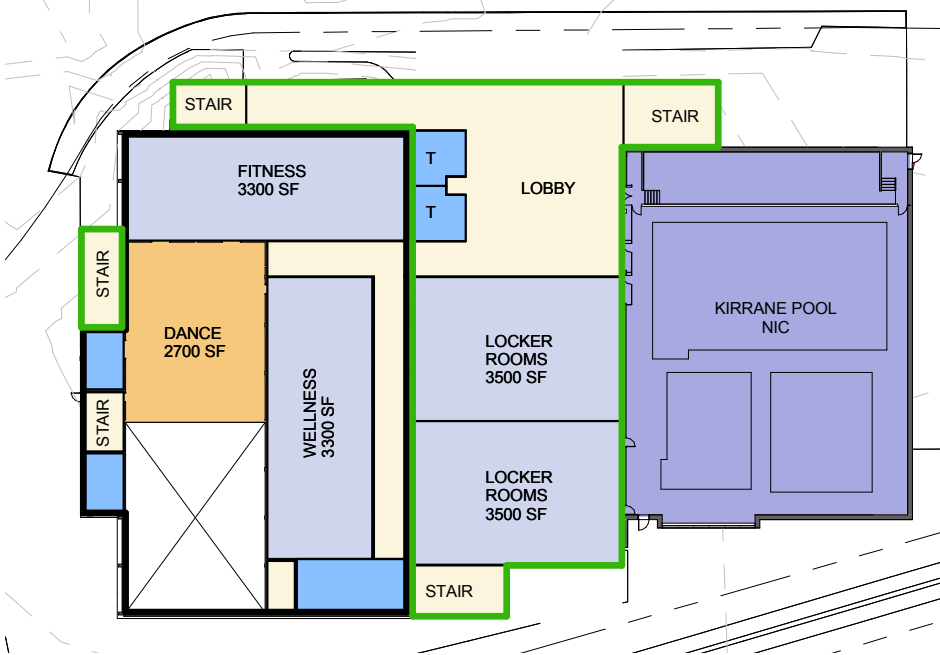
#### Project Cost

\$ 62,266,000

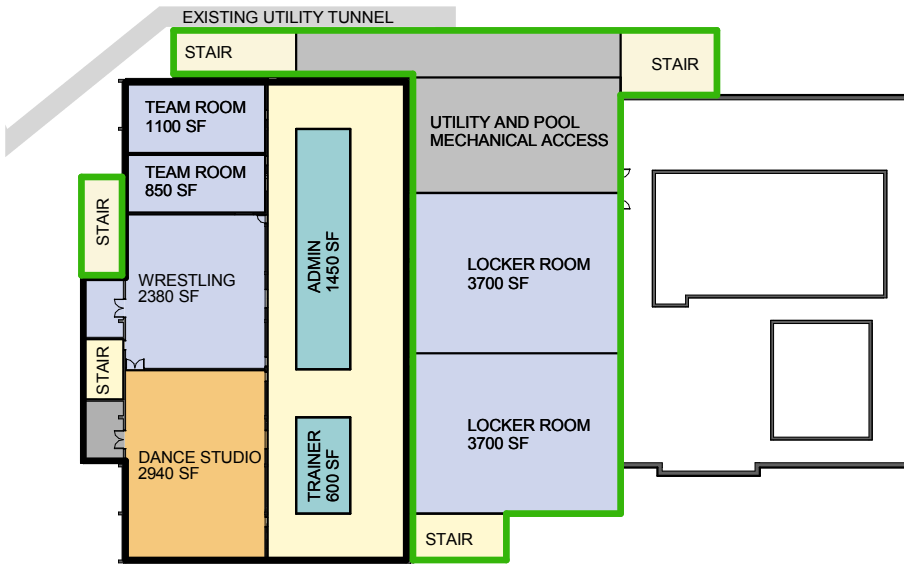
-  Existing to Remain
-  Light Renovation at Existing
-  Code Compliance Renovation
-  Intensive Renovation
-  New Construction

### 4. OPTIONAL PROJECTS

#### Tappan Gym Option 2 | Moderate Expansion with a Competition & Practice Gym



First Floor - Program

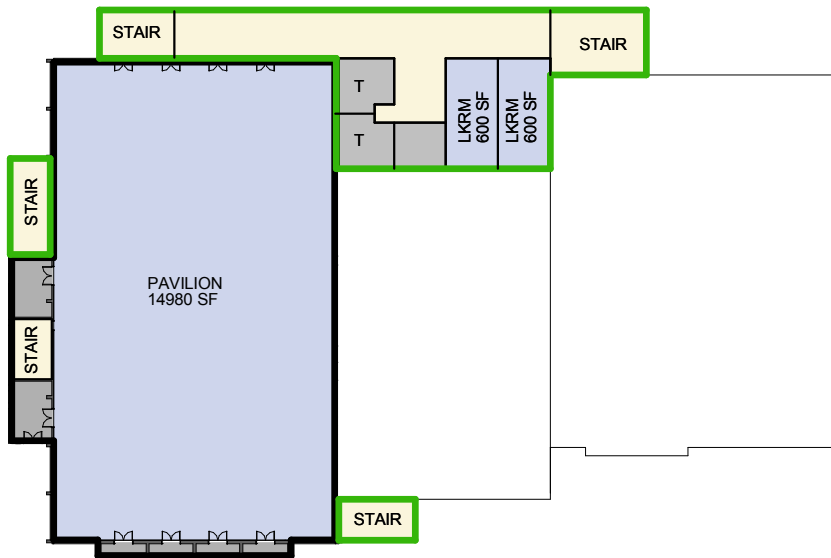


Basement - Program

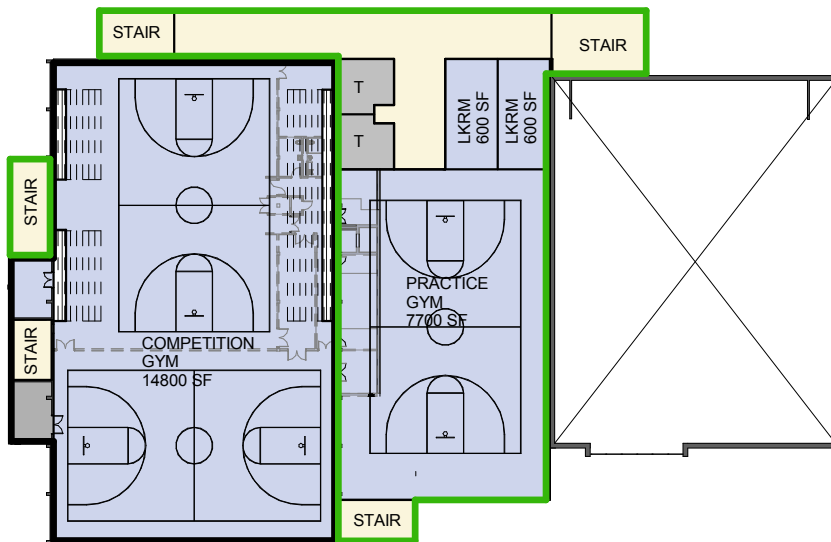


## 4. OPTIONAL PROJECTS

### Tappan Gym Option 2 | Moderate Expansion with a Competition & Practice Gym



Third Floor - Program



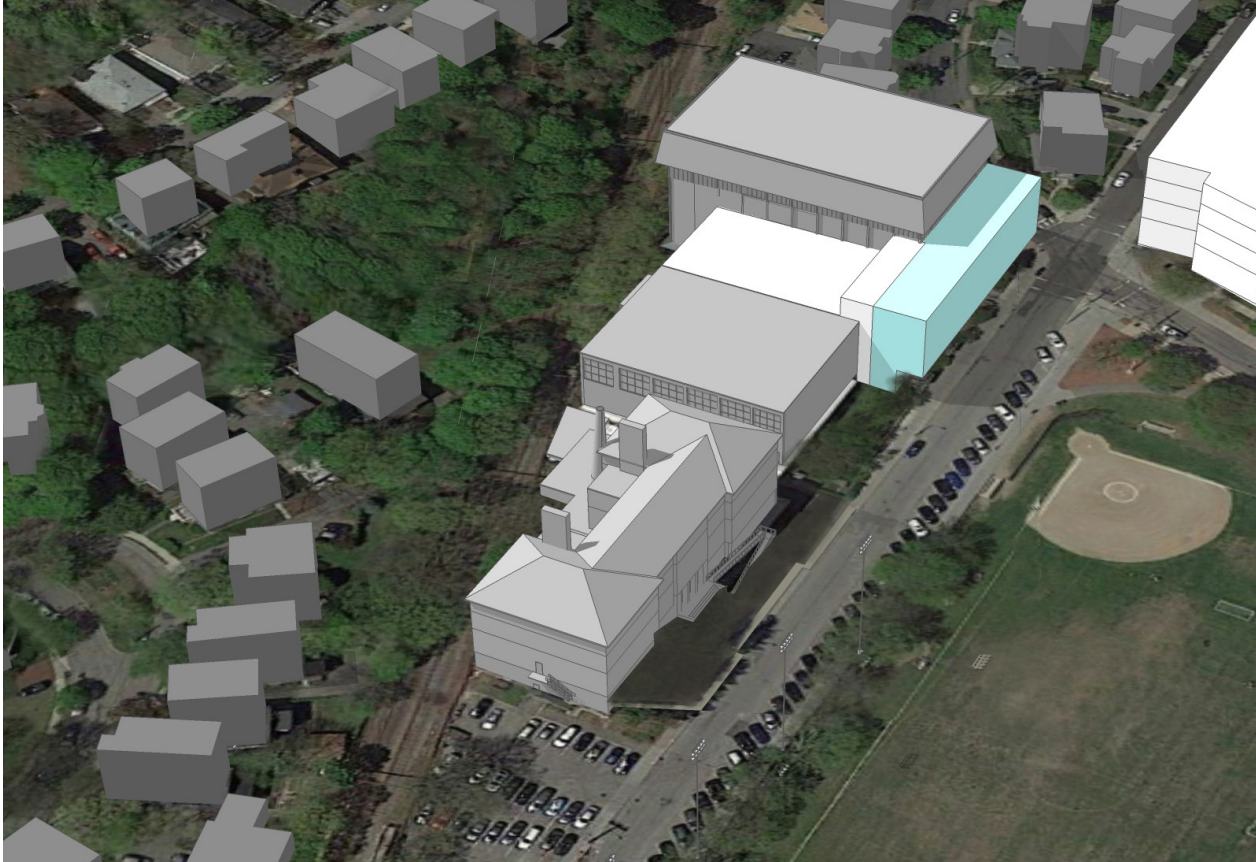
Second Floor - Program

- █ New Construction
- █ Administration & Guidance
- █ Art & Music
- █ Auditorium & Drama
- █ Circulation
- █ Common Shared
- █ Core Academic
- █ Custodial & Maintenance
- █ Dining & Food Service
- █ Health & Physical Education
- █ Media Center
- █ Medical
- █ Other
- █ Science
- █ Special Education
- █ Support
- █ Vocations & Technology

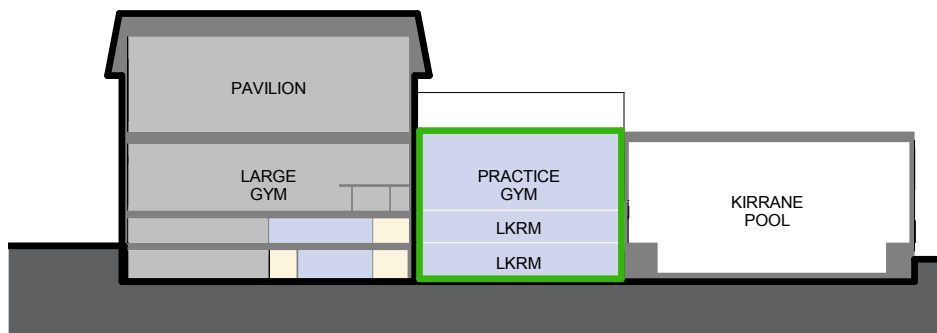


## 4. OPTIONAL PROJECTS

### Tappan Gym Option 2.1 | Moderate Expansion with Practice Gym



Massing

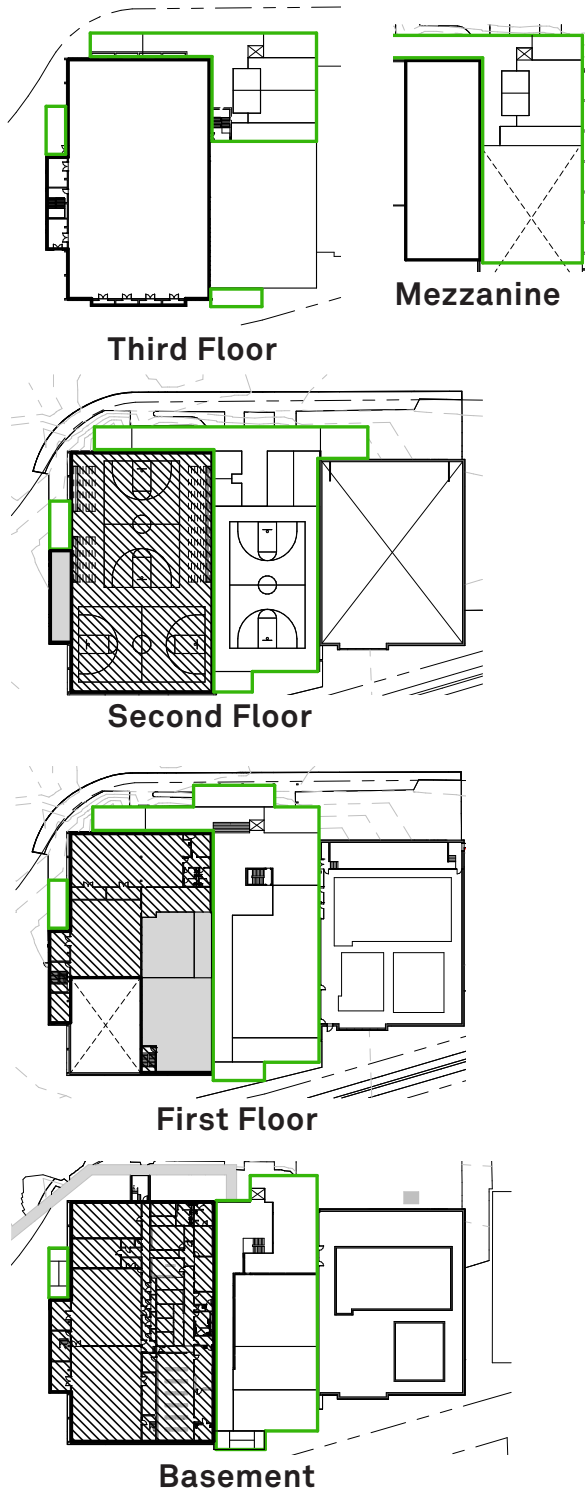


Section

## 4. OPTIONAL PROJECTS

### Tappan Gym Option 2.1 | Moderate Expansion with Practice Gym

#### Extent of Renovation Plans



Tappan Gym Option 2.1 is a variant of Option 2, that reduces the extent of renovations, and therefore costs.

Intensive renovations are limited to areas of the First Floor to create a Wellness Center, with light renovations on other floors.

New construction provides a new lobby and accessible entrance, elevators and stairs, and toilet room facilities. Additionally, a Small Gym is constructed adjacent to the existing Second Floor Gyms, to replace the Schlutz Gym, as per BHS-Greenough Building Options 2 & 3.

The two existing gyms on the Second Floor remain.

The existing Third Floor Pavilion athletic space remains.

The Kirrane Pool remains operational.

#### Renovation Area

67,100 sf

#### New Construction Area





54,300 sf

#### Total Area

121,400 sf

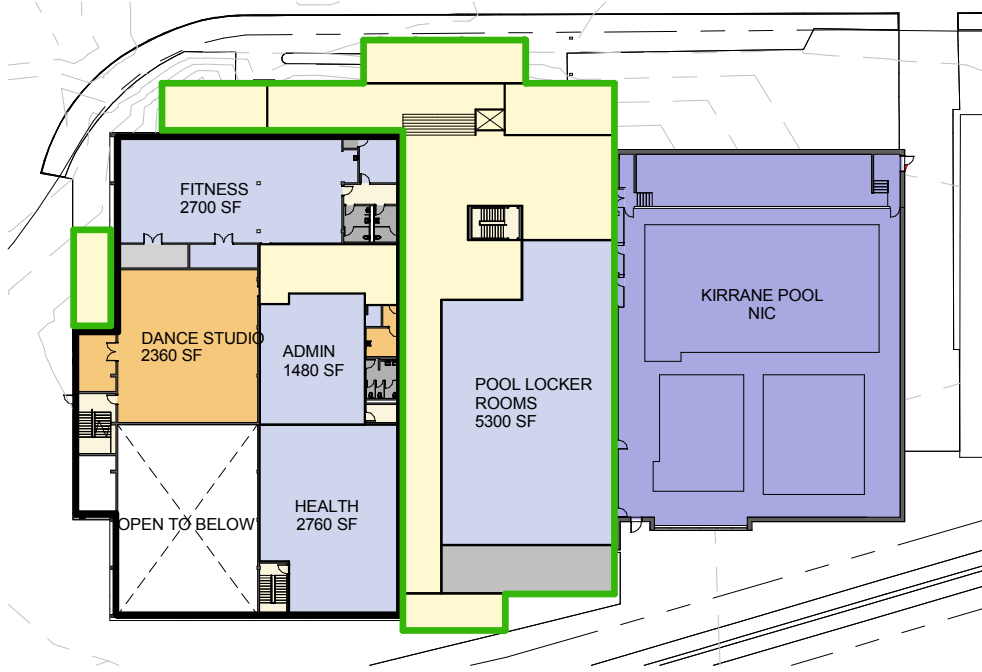
#### Project Cost

\$ 52,706,000

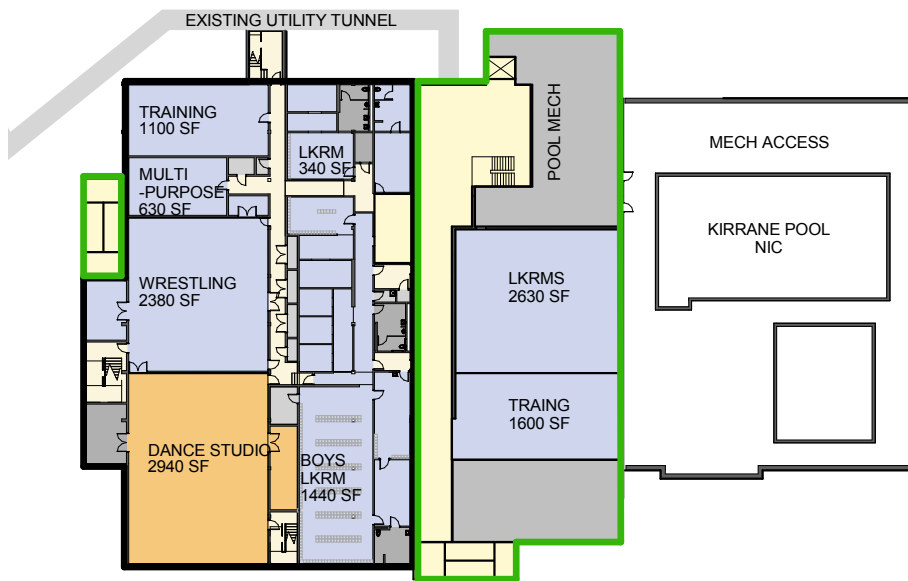
-  Existing to Remain
-  Light Renovation at Existing
-  Code Compliance Renovation
-  Intensive Renovation
-  New Construction

## 4. OPTIONAL PROJECTS

### Tappan Gym Option 2.1 | Moderate Expansion adds Practice Gym



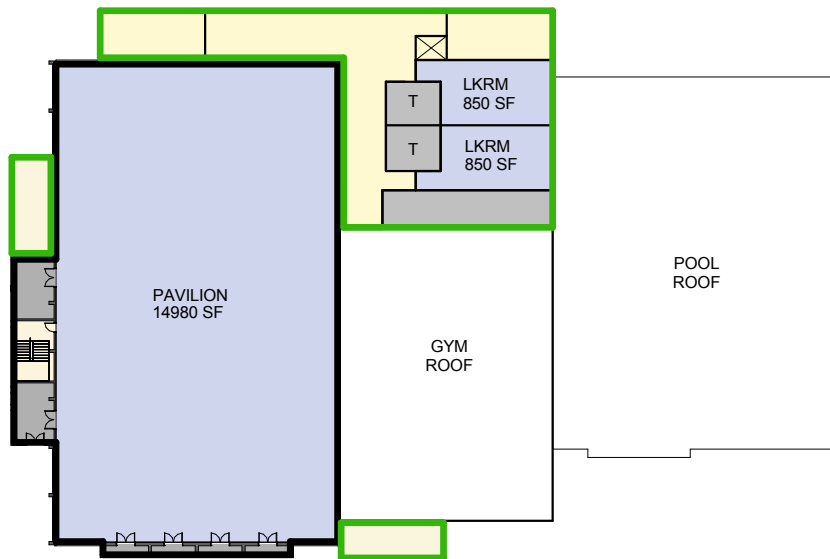
First Floor - Program



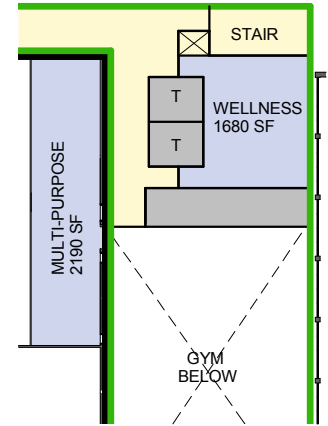
Basement - Program

## 4. OPTIONAL PROJECTS

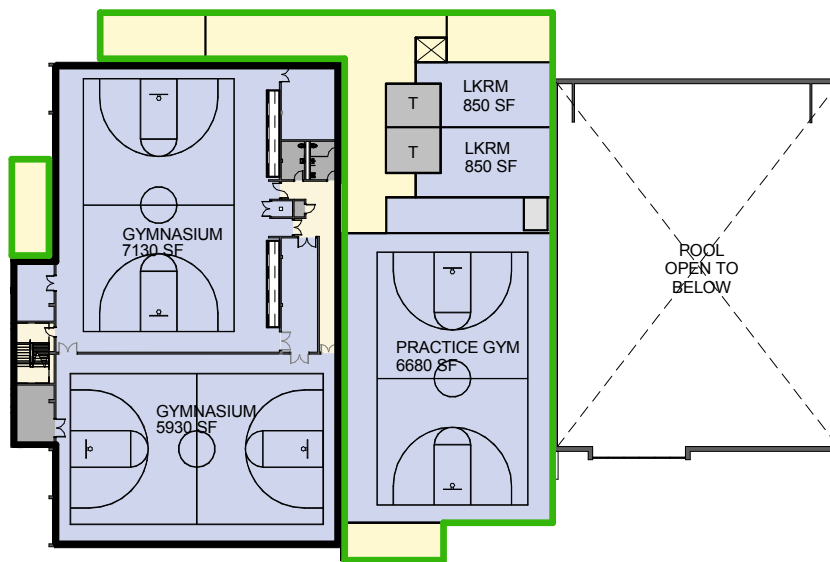
### Tappan Gym Option 2.1 | Moderate Expansion adds Practice Gym



Third Floor - Program



Mezzanine



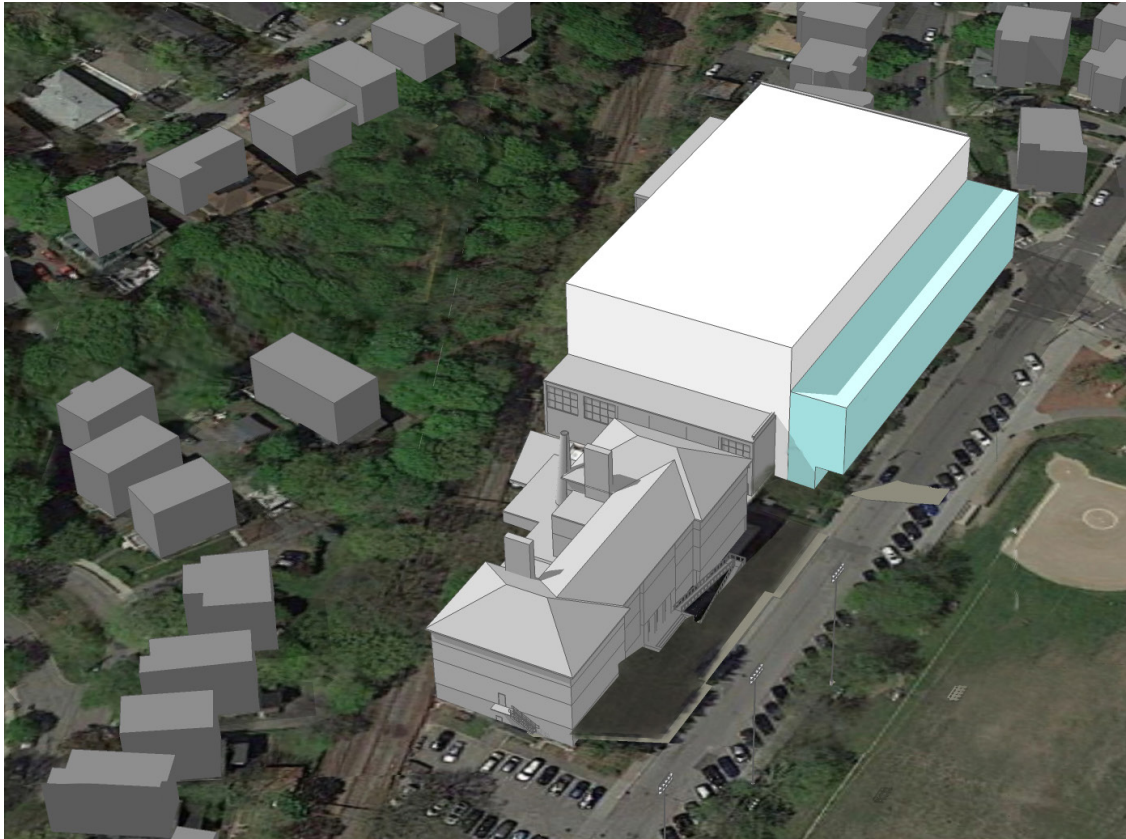
Second Floor - Program

- New Construction
- Administration & Guidance
- Art & Music
- Auditorium & Drama
- Circulation
- Common Shared
- Core Academic
- Custodial & Maintenance
- Dining & Food Service
- Health & Physical Education
- Media Center
- Medical
- Other
- Science
- Special Education
- Support
- Vocations & Technology

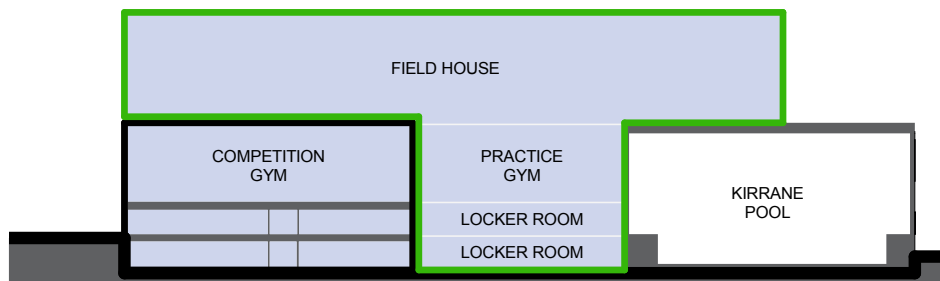


## 4. OPTIONAL PROJECTS

### Tappan Gym Option 3 | Education Plan with Field House



Massing

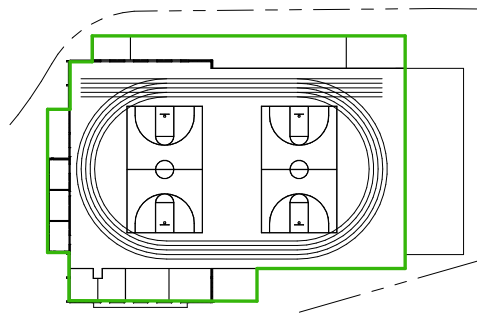


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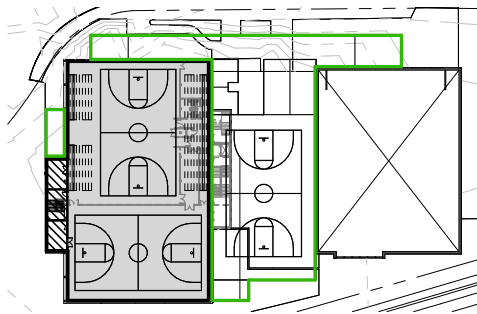
## 4. OPTIONAL PROJECTS

### Tappan Gym Option 3 | Education Plan with Field House

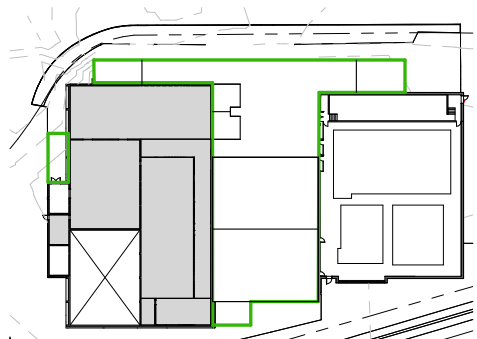
#### Extent of Renovation Plans



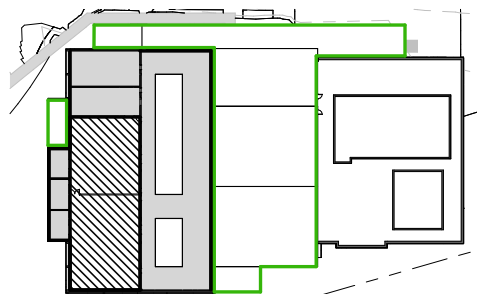
Third Floor



Second Floor



First Floor



Basement

The proposed Tappan Gym Option 3 – BHS Education Plan is coordinated with the Option 3 BHS Education Plan. This option demolishes the Schluntz Gym placing all Physical Education and Athletic Programs at the Tappan Gym.

New Construction of a Fieldhouse including a running track and basketball courts, is created by extending the Pavilion over the roof of the Kirrane Pool. The other floors of the facility include new construction and renovation as described

This Tappan Gym Option 3 provides a total of five basketball courts available to accommodate the BHS Enrollment Growth, as well as the Town of Brookline Recreation activities

#### Renovation Area

60,130 sf

#### New Construction Area


64,050 sf

#### Total Area

124,180 sf

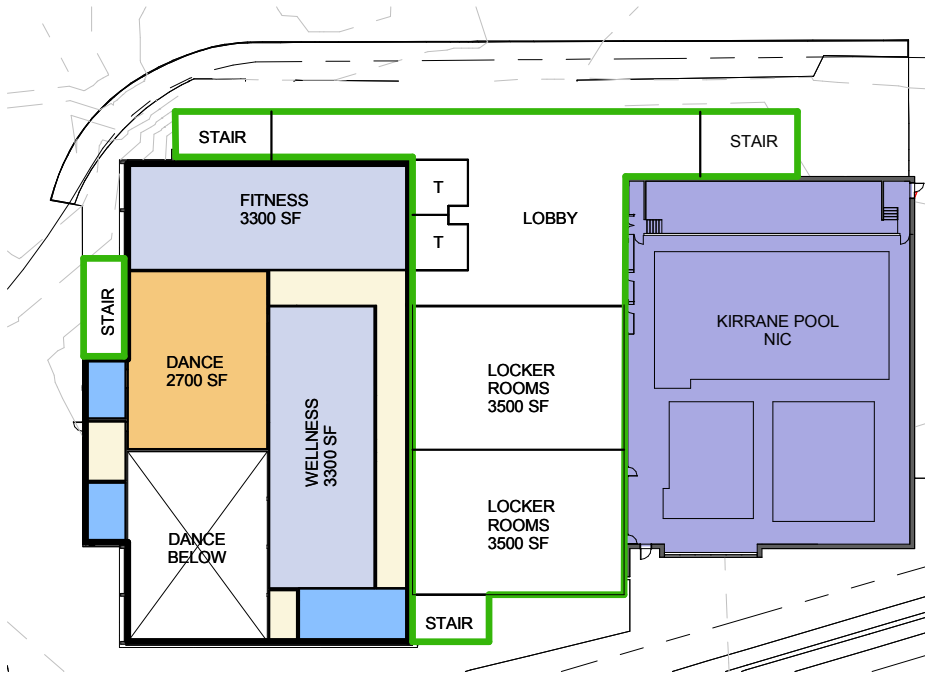
#### Project Cost

\$ 74,000,000

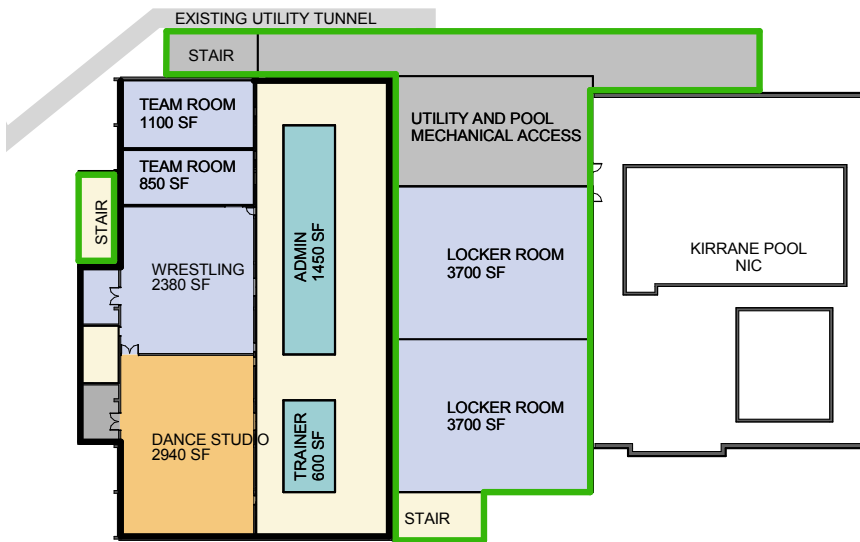
-  Existing to Remain
-  Light Renovation
-  Code Compliance Renovation
-  Intensive Renovation
-  New Construction

## 4. OPTIONAL PROJECTS

### Tappan Gym Option 3 | Education Plan with Field House



First Floor - Program

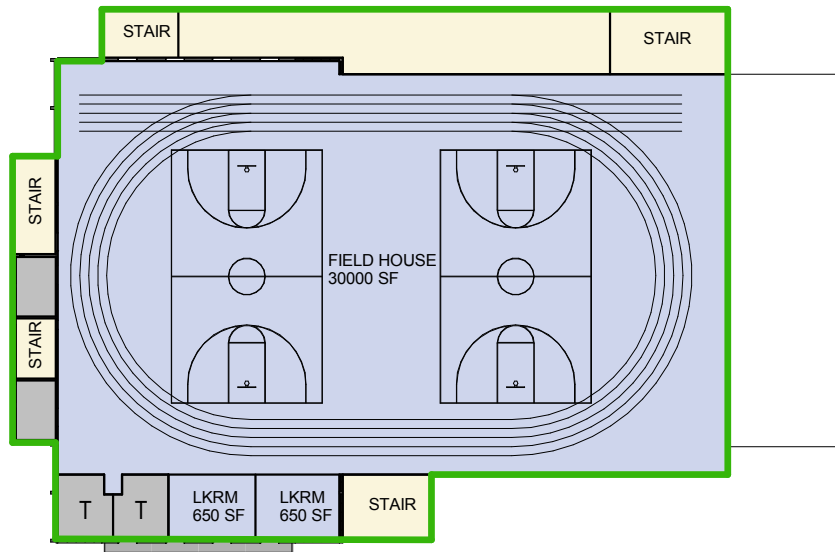


Basement - Program

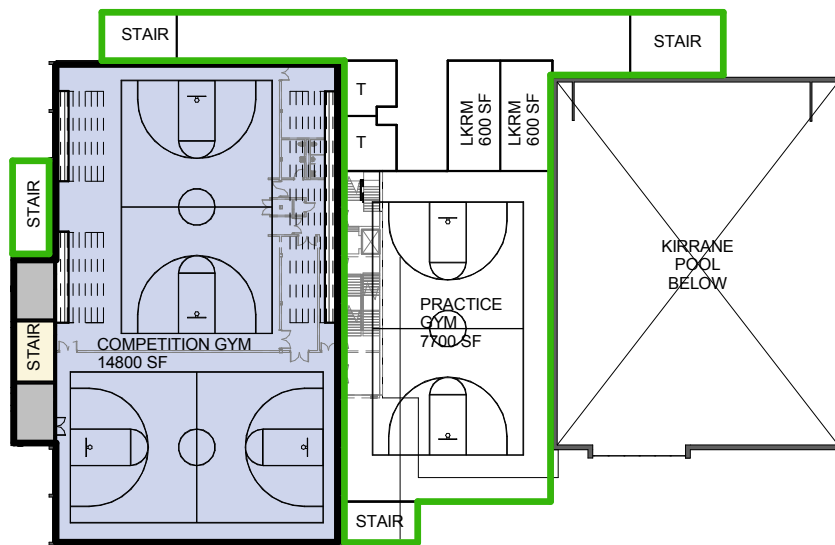


## 4. OPTIONAL PROJECTS

### Tappan Gym Option 3 | Education Plan with Field House



Third Floor - Program



Second Floor - Program

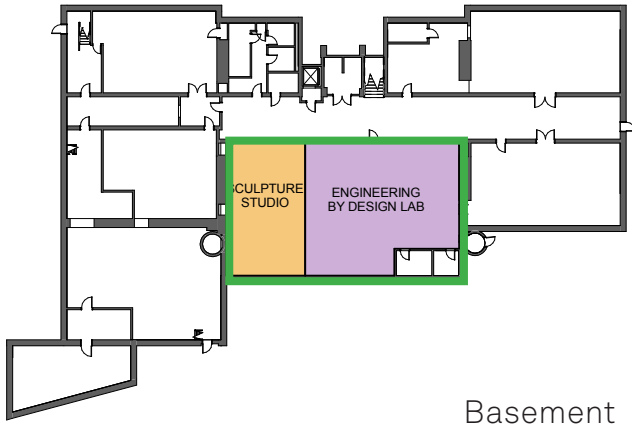
- New Construction
- Administration & Guidance
- Art & Music
- Auditorium & Drama
- Circulation
- Common Shared
- Core Academic
- Custodial & Maintenance
- Dining & Food Service
- Health & Physical Education
- Media Center
- Medical
- Other
- Science
- Special Education
- Support
- Vocations & Technology



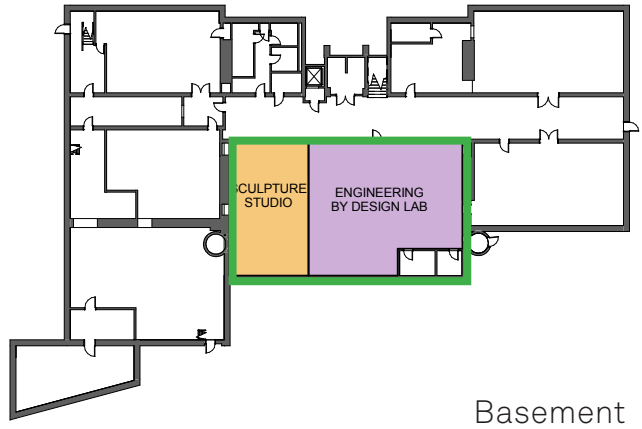
## 4. OPTIONAL PROJECTS | Unified Arts Building

### UAB | Interior Renovations Accommodate Program Expansion (Note: refer to Options 1, 2 & 3 Layouts and Space Programs)

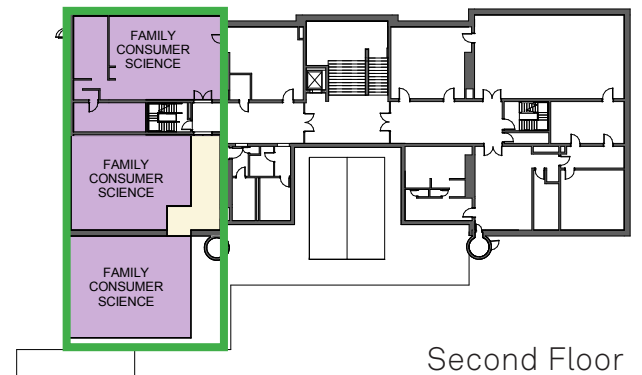
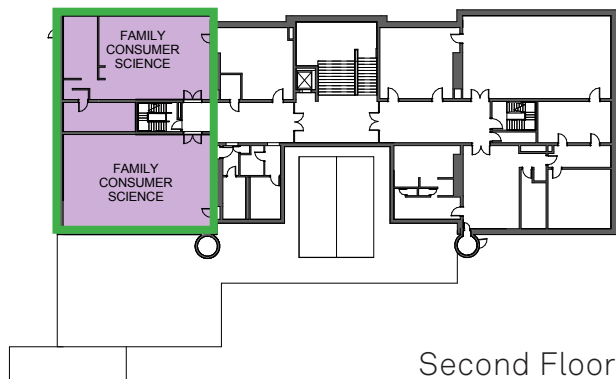
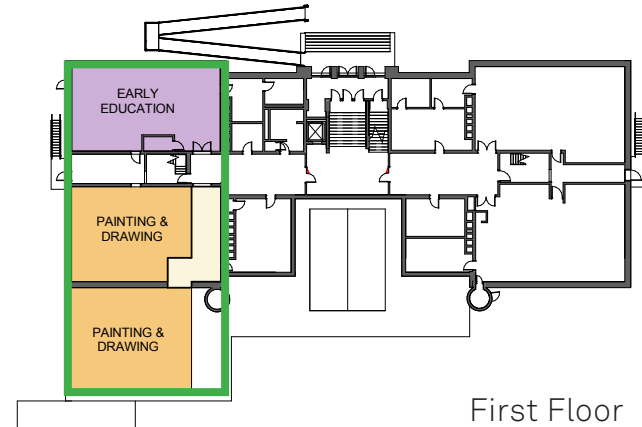
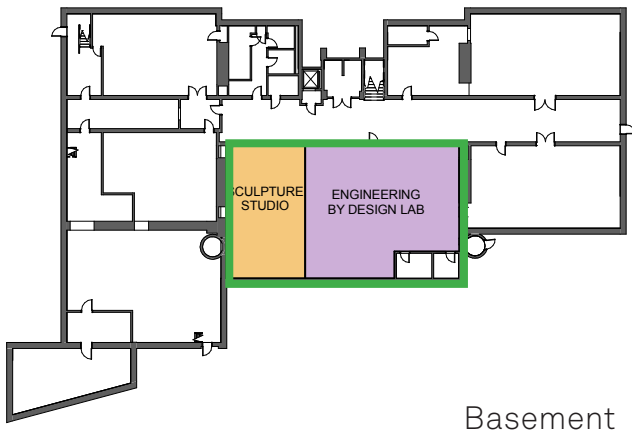
**Option 1 | Enrollment Accommodation**  
Program Renovations at the Basement Floor



**Option 3 | Education Plan**  
Program Renovations & Expansion at the Basement, First & Second Floors



**Option 2 | State Standards**  
Program Renovations at the Basement & Second Floors



Program Renovations

## 4. OPTIONAL PROJECTS | Unified Arts Building

**UAB** | Interior Renovations Accommodate Program Expansion  
Option 4 - Not included in cost comparisons

### Option 4 | Program Renovations at the Basement Floor

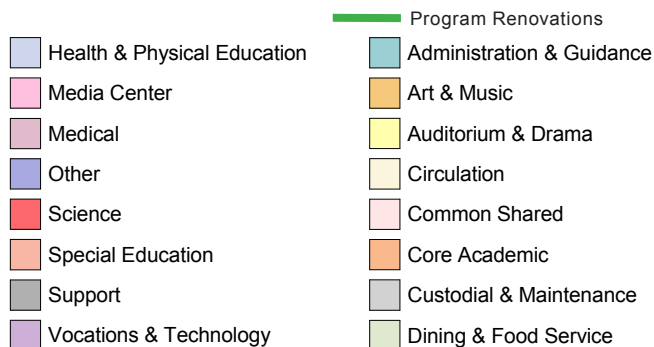


Third Floor - BHS shares with (BIG) Brookline Interactive Group

First Floor

Second Floor

Basement



## 4. OPTIONAL PROJECTS

### Cypress Park | Field and Playground Renovation Parks and Open Space / Recreation / BHS Physical Ed & Athletics

Preliminary proposals for the development of Cypress Park are based on meetings with the Town of Brookline representatives and stakeholders: Parks and Open Space / Recreation / BHS Physical Ed & Athletics.

Development options site amenities include: a 105,000 SF synthetic turf field striped for football practice and soccer; one softball field; bleachers and storage at the parking head house; a replacement outdoor basketball court; and a reconstructed Cypress Street playground.

Option 1 - Greenough Street remains in place, with a landscaped open space between Greenough Street and the turf field, with seating, the historic plaque and a flagpole.

Options 2 - Greenough Street has been re-aligned, and relocated to be perpendicular to Tappan Street which creates more open space in front of the main BHS academic building. This area will be landscaped with seating, the historic plaque, and a flagpole. This reconfiguration of the street and open space proposes that the plaza in front of the high school, and creates a safer zone for pedestrian crossing at Tappan Street as a raised, wide crosswalk to provide easier and safer access for the students. Operationally, Tappan Street would be open before and after school. As with the current Greenough Street, the Tappan Street crossing could be closed to traffic during the school day.

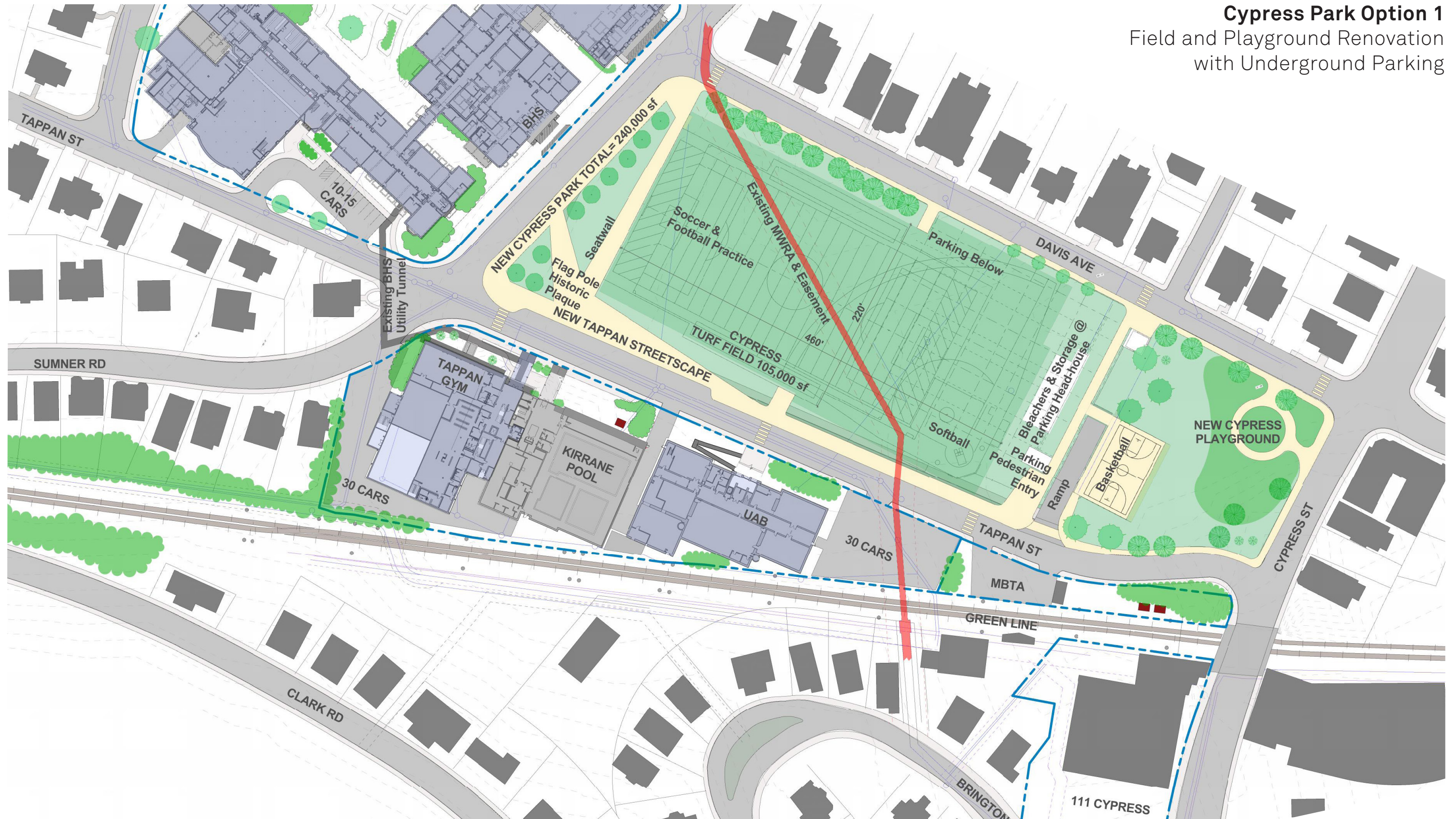
In addition, Cypress Park projects coordinate and incorporate proposals for below-grade parking. Refer to Options 1 and 2, with vehicular Ramp access and Parking Garage Head-Houses for pedestrian access to an Underground Parking Structure. Cypress Park is bisected by an existing large MWRA sewer line and easement, limiting below-grade parking to an area near the existing playground. The preliminary plan indicates that each parking level could accommodate approximately 100 cars. With available below-grade parking, the diagonal parking spaces along Tappan Street are removed, leaving parallel parking spaces on Tappan Street across from the Kirrane Pool.

Note that during further review with the BHS Athletics and Recreation representatives it was determined that a second softball field is needed and should be included as part of the project. Options 3 and 4 are similar to Options 1 and 2, respectively, showing the alignment and configuration of the open space and Greenough St. In addition, by eliminating the below grade and surface infrastructure features required by the Underground Parking Structure, space is available to incorporate a second softball facility as well as maintaining the diagonal parking at Tappan Street.

### 4. OPTIONAL PROJECTS

#### Cypress Park Option 1

Field and Playground Renovation with Underground Parking



#### 4. OPTIONAL PROJECTS

##### Cypress Park Option 2

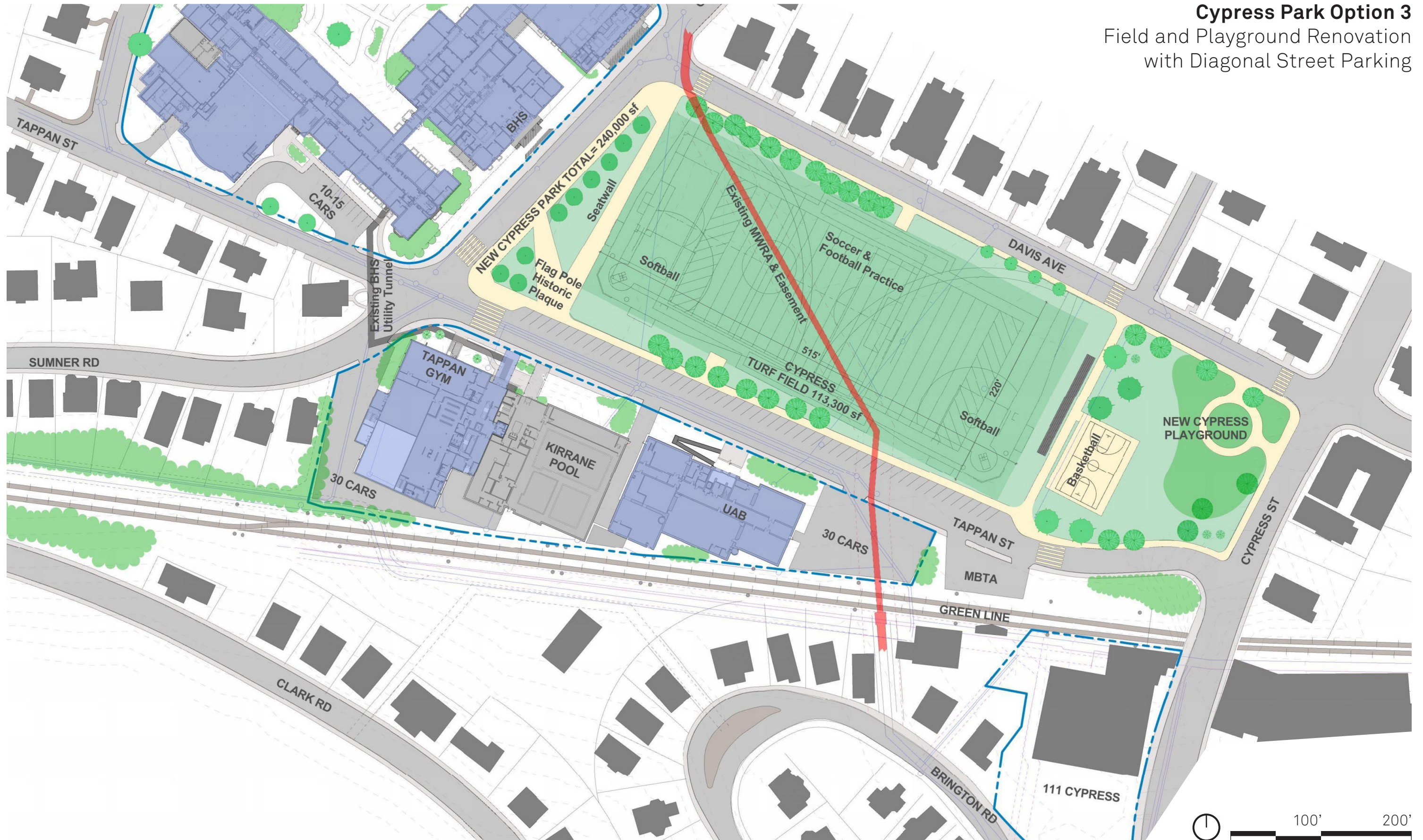
Field and Playground Renovation with Greenough St. Re-Alignment and Underground Parking



### 4. OPTIONAL PROJECTS

#### Cypress Park Option 3

Field and Playground Renovation with Diagonal Street Parking



### 4. OPTIONAL PROJECTS

#### Cypress Park Option 2

Field and Playground Renovation with Greenough St. Re-Alignment and Diagonal Street Parking



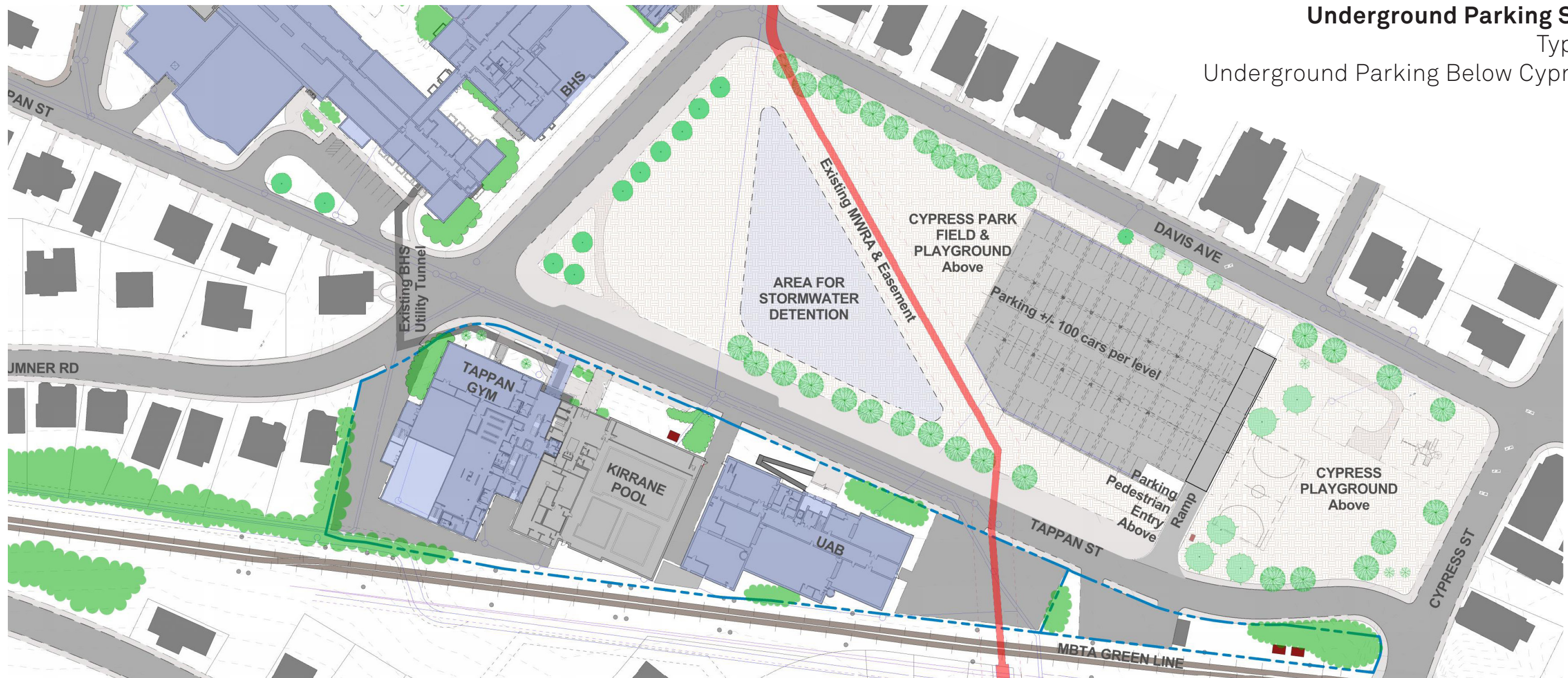


### 4. OPTIONAL PROJECTS

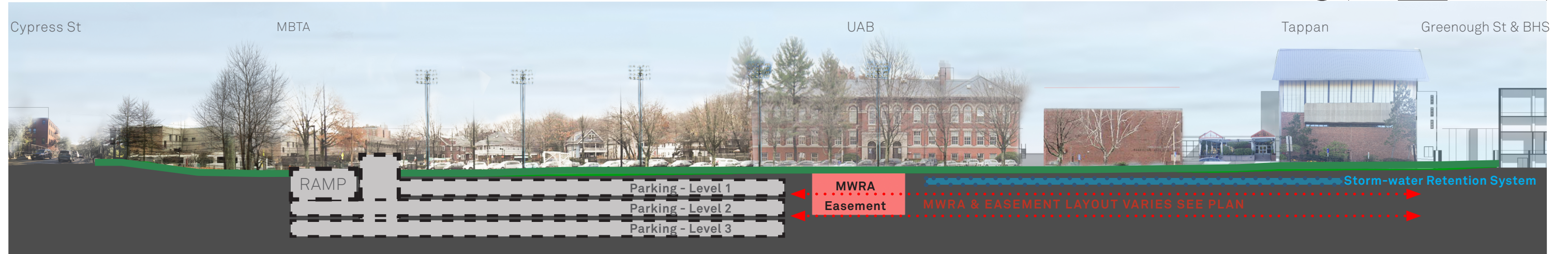
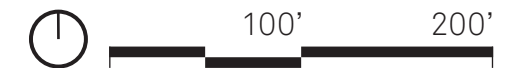
## Underground Parking Structure

Typical Plan

Underground Parking Below Cypress Field



### Site Section: Underground Parking Structure Below Cypress Field @ +/- 100 Cars per Level



### 4. OPTIONAL PROJECTS

## Underground Parking Structure

Below Cypress Building 9th Grade Academy



Note that several concerns emerged during the review and discussion of a below-grade underground parking structure at this location, including;

- the neighbors' concern about the height, scale and massing of the building increasing, due to adding parking at the Ground Floor. The building becomes a floor taller.
- the negative impact of vehicular traffic at Brington Rd
- the location of trash and loading, and having sufficient buffer zones and green space

Further review of BHS campus transportation and traffic issues will be reviewed at a future phase



### 4. OPTIONAL PROJECTS

## Underground Parking Structure

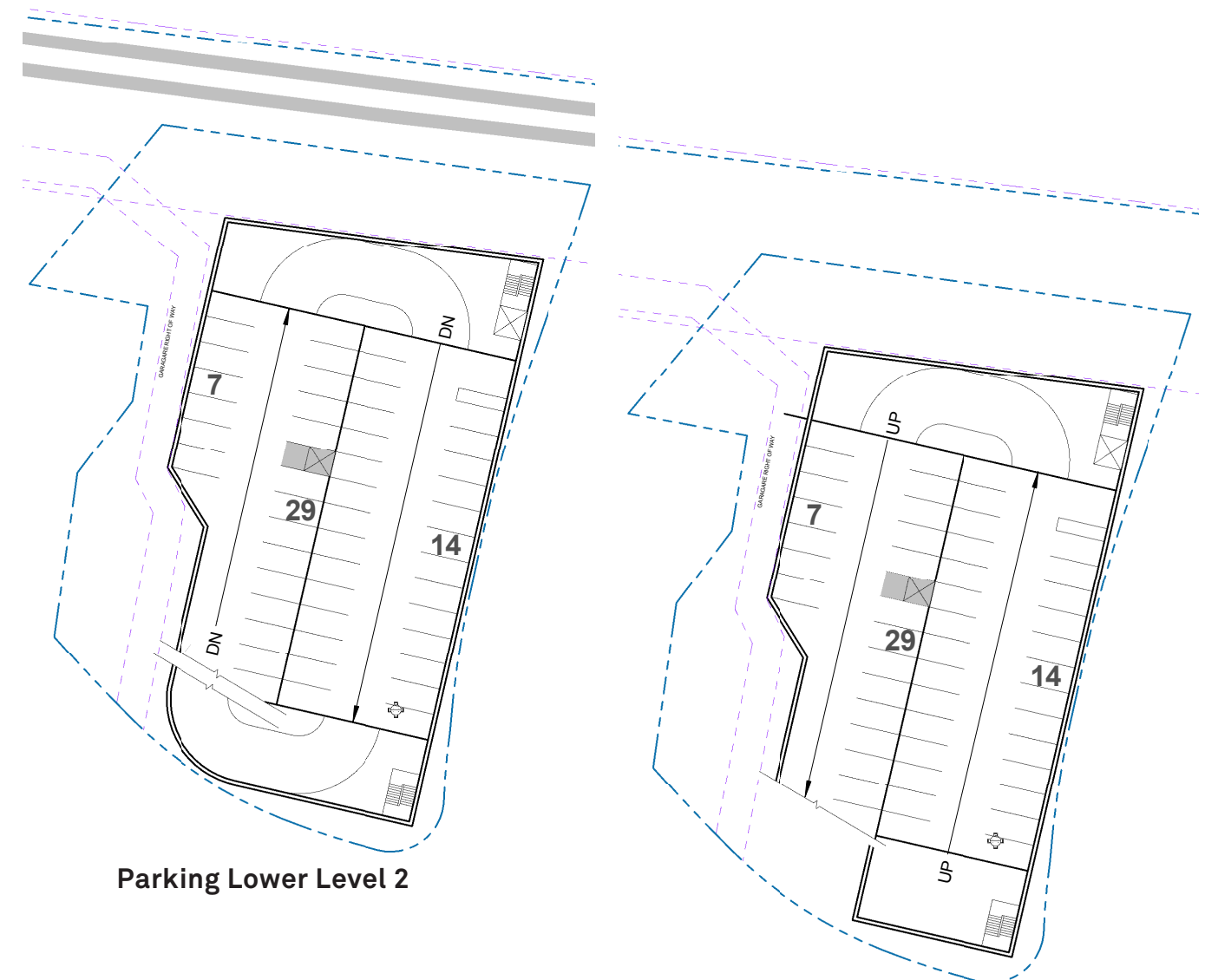
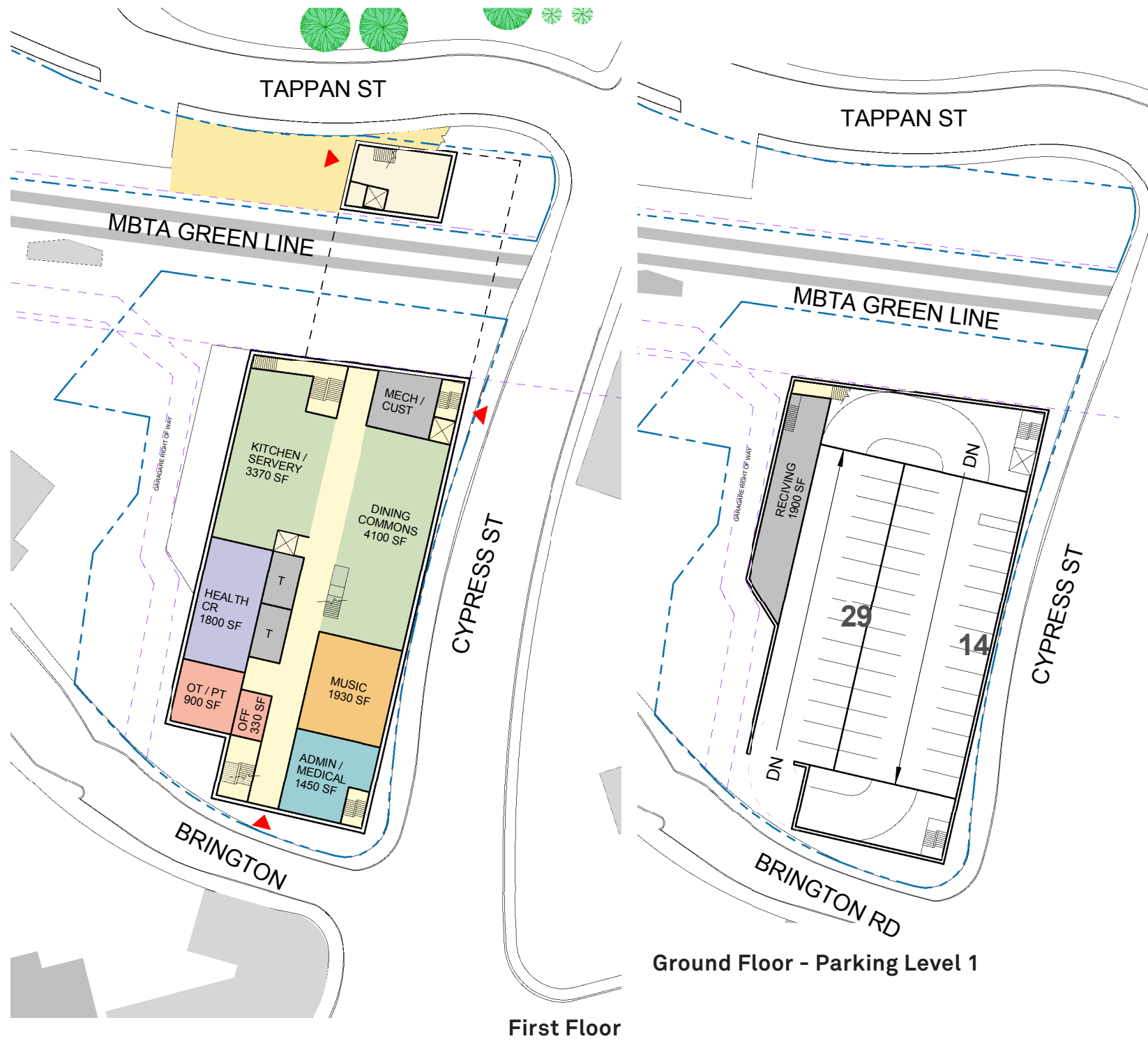
### Below Option 4D Cypress Building 9th Grade Academic Building

As part of the Option 4 Stand-alone Cypress Building feasibility study programming and planning process, the Town of Brookline requested that additional program elements be considered to test-fit accommodation as part of the new construction.

An Underground Parking Structure, below the 9th Grade core academic space program or adds three levels of below grade parking for a total of approximately 130 cars.

Vehicular access is from Brington Road on the southwest corner of the site.. Sloping parking deck floor structures ramp down at the interior parking structure, approximate 20ft-30ft below Cypress Street.

The order of magnitude costs for a parking structure adds \$14,755,300 to the construction costs. Refer to Volume 3 of 3 Appendix E - Cost Estimates for additional information. The project cost is assumed at \$19.6M.



### 4. Order of Magnitude Costs Comparison

#### Order of Magnitude Cost Comparison

|                                                                                                 | OPTION 1: 2700 Enrollment                                                                                                                                             |                 |                       | OPTION 2: MA State Standards                                                                                                                                                                                                             |                 |                       | OPTION 3: BHS Ed Plan                                                                                                                                                    |                 |                       |                                                                                                                                                                 |                 |                       |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------|
| <b>Area Summary</b>                                                                             | <b>1. Enrollment Accommodation</b>                                                                                                                                    |                 |                       | <b>2. State Standards without Tappan Gym</b>                                                                                                                                                                                             |                 |                       | <b>2. State Standards With Tappan Gym</b>                                                                                                                                |                 |                       | <b>3. Education Plan</b>                                                                                                                                        |                 |                       |
| EXISTING TO REMAIN GROSS SQ. FT (GSF)<br>MAIN BHS for 9, 10, 11, & 12                           | GSF                                                                                                                                                                   | Existing at BHS | 342,670               | GSF                                                                                                                                                                                                                                      | Existing at BHS | 342,670               | GSF                                                                                                                                                                      | Existing at BHS | 342,670               | GSF at BHS                                                                                                                                                      |                 | 342,670               |
|                                                                                                 | Demo +/-                                                                                                                                                              | 48,360          |                       | Demo +/-                                                                                                                                                                                                                                 | 100,390         |                       | Demo +/-                                                                                                                                                                 | 100,390         |                       | Demo +/-                                                                                                                                                        | 161,620         |                       |
| GROSS SQ. FOOTAGE (GSF)                                                                         | NEW                                                                                                                                                                   | EXIST           | TOTAL at BHS          | NEW                                                                                                                                                                                                                                      | EXIST           | TOTAL at BHS          | NEW                                                                                                                                                                      | EXIST           | TOTAL at BHS          | NEW                                                                                                                                                             | EXIST           | TOTAL at BHS          |
|                                                                                                 | 165,000                                                                                                                                                               | 294,310         | 459,310               | 228,690                                                                                                                                                                                                                                  | 242,280         | 470,970               | 228,690                                                                                                                                                                  | 242,280         | 470,970               | 298,130                                                                                                                                                         | 181,050         | 479,180               |
| MAIN BHS 9, 10, 11, 12 Grades<br>New Construction Area<br>Renovation Area ( Existing to Remain) |                                                                                                                                                                       | Renovate        | TOTAL Campus          |                                                                                                                                                                                                                                          | Renovate        | TOTAL Campus          |                                                                                                                                                                          | Renovate        | TOTAL Campus          |                                                                                                                                                                 | Renovate        | TOTAL Campus          |
|                                                                                                 | 165,000                                                                                                                                                               |                 | 459,310               | 228,690                                                                                                                                                                                                                                  |                 | 470,970               | 228,690                                                                                                                                                                  |                 | 470,970               | 298,130                                                                                                                                                         |                 | 479,180               |
|                                                                                                 |                                                                                                                                                                       | 294,310         |                       |                                                                                                                                                                                                                                          | 242,280         |                       |                                                                                                                                                                          | 242,280         |                       |                                                                                                                                                                 | 181,050         |                       |
|                                                                                                 | UAB & Tappan areas not included                                                                                                                                       |                 |                       | UAB & Tappan areas not included                                                                                                                                                                                                          |                 |                       | UAB & Tappan areas not included                                                                                                                                          |                 |                       | UAB & Tappan areas not included                                                                                                                                 |                 |                       |
| <b>PROJECT BUDGET CATEGORIES</b>                                                                | <b>1. Enrollment Accommodation at BHS</b>                                                                                                                             |                 |                       | <b>2. State Standards at BHS without Tappan Gym</b>                                                                                                                                                                                      |                 |                       | <b>2. State Standards at BHS With Tappan Gym</b>                                                                                                                         |                 |                       | <b>3. Education Plan</b>                                                                                                                                        |                 |                       |
|                                                                                                 | Program changes to Tappan Gym not required, see the list of                                                                                                           |                 |                       | Note Replace Schluntz Gym required for Program                                                                                                                                                                                           |                 |                       | Plus Replace Schluntz Gym with Competition Gym at                                                                                                                        |                 |                       | plus per Education Plan, Replace Schluntz Gym with                                                                                                              |                 |                       |
| <b>MAIN BHS CAMPUS</b>                                                                          | <b>MAIN BHS CAMPUS \$ 124,978,854</b>                                                                                                                                 |                 |                       | <b>MAIN BHS CAMPUS \$ 148,569,063</b>                                                                                                                                                                                                    |                 |                       | <b>MAIN BHS CAMPUS \$ 148,569,063</b>                                                                                                                                    |                 |                       | <b>MAIN BHS CAMPUS \$ 216,602,688</b>                                                                                                                           |                 |                       |
| Construction Cost                                                                               | New 4-Floor Addition replacing the Roberts Wing and Expand into the Courtyard, and Renovate the 3rd-Floor<br>Optional projects below<br>UAB & Tappan Gym not included |                 |                       | New 4-Floor Addition replaces Roberts & Schluntz Wings, expand into the Courtyard, Reno 3rd-Floor for Academics<br>Refer to see OPTIONAL projects below, for Costs not included see Tappan Gym 2. Moderate Expansion or 2.1 Min.Moderate |                 |                       | New 4-Floor Addition replaces Roberts & Schluntz Wings, expand into the Courtyard, Reno 3rd-Floor for Academics<br><b>Tappan Gym 2. Moderate Expansion \$ 46,852,100</b> |                 |                       | Demo Existing at Greenough St. and Replace with New 5-Floors at Greenough & Courtyard<br><b>Tappan Gym 3. Ed.Plan Project \$ 55,168,801</b><br>with Field House |                 |                       |
| Renovation Construction Cost                                                                    | Partial Interior Renovation included                                                                                                                                  |                 |                       | Partial Interior Renovation included                                                                                                                                                                                                     |                 |                       | Partial Interior Renovation included                                                                                                                                     |                 |                       | Partial Interior Renovation included                                                                                                                            |                 |                       |
| Renovation Alternates                                                                           |                                                                                                                                                                       |                 |                       |                                                                                                                                                                                                                                          |                 |                       |                                                                                                                                                                          |                 |                       |                                                                                                                                                                 |                 |                       |
| BHS Window Replacement                                                                          | \$                                                                                                                                                                    | 5,624,400       |                       | \$                                                                                                                                                                                                                                       | 5,624,400       |                       | \$                                                                                                                                                                       | 5,624,400       |                       | \$                                                                                                                                                              | 5,624,400       |                       |
| Replace portions of Roof                                                                        | \$                                                                                                                                                                    | 1,709,500       |                       | \$                                                                                                                                                                                                                                       | 1,709,500       |                       | \$                                                                                                                                                                       | 1,709,500       |                       | \$                                                                                                                                                              | 1,709,500       |                       |
| Misc. Repair                                                                                    | \$                                                                                                                                                                    | 6,830,435       |                       | \$                                                                                                                                                                                                                                       | 7,645,131       |                       | \$                                                                                                                                                                       | 7,645,131       |                       | \$                                                                                                                                                              | 7,645,131       |                       |
| <b>Total Construction Cost</b>                                                                  |                                                                                                                                                                       | Reno. Allowance | \$ 14,164,335         |                                                                                                                                                                                                                                          | Reno. Allowance | \$ 14,979,031         |                                                                                                                                                                          | Reno. Allowance | \$ 14,979,031         |                                                                                                                                                                 | Reno. Allowance | \$ 14,979,031         |
|                                                                                                 | UAB & Tappan Gym not included                                                                                                                                         |                 |                       | UAB & Tappan Gym not included                                                                                                                                                                                                            |                 |                       | UAB not included                                                                                                                                                         |                 |                       | UAB not included                                                                                                                                                |                 |                       |
| <b>TOTAL CONSTRUCTION COST</b>                                                                  |                                                                                                                                                                       |                 | <b>\$ 139,143,189</b> |                                                                                                                                                                                                                                          |                 | <b>\$ 163,548,094</b> |                                                                                                                                                                          |                 | <b>\$ 210,400,194</b> |                                                                                                                                                                 |                 | <b>\$ 271,771,489</b> |
| Construction Contingency                                                                        | 5.00%                                                                                                                                                                 | \$              | 6,957,159             | 5.00%                                                                                                                                                                                                                                    | \$              | 8,177,405             | 5.00%                                                                                                                                                                    | \$              | 10,520,010            | 5.00%                                                                                                                                                           | \$              | 13,588,574            |
|                                                                                                 |                                                                                                                                                                       |                 | <b>\$ 146,100,348</b> |                                                                                                                                                                                                                                          |                 | <b>\$ 171,725,499</b> |                                                                                                                                                                          |                 | <b>\$ 220,920,204</b> |                                                                                                                                                                 |                 | <b>\$ 285,360,063</b> |
| <b>PROFESSIONAL FEES &amp; SERVICES</b>                                                         | % of construct.cost without contingency                                                                                                                               |                 |                       | % of construct.cost without contingency                                                                                                                                                                                                  |                 |                       | % of construct.cost without contingency                                                                                                                                  |                 |                       | % of construct.cost without contingency                                                                                                                         |                 |                       |
| OPM Fees                                                                                        | 3.00%                                                                                                                                                                 | \$              | 4,174,296             | 3.00%                                                                                                                                                                                                                                    | \$              | 4,906,443             | 3.00%                                                                                                                                                                    | \$              | 6,312,006             | 3.00%                                                                                                                                                           | \$              | 8,153,145             |
| A/E Fees                                                                                        | 9.50%                                                                                                                                                                 | \$              | 13,218,603            | 9.50%                                                                                                                                                                                                                                    | \$              | 15,537,069            | 9.50%                                                                                                                                                                    | \$              | 19,988,018            | 9.50%                                                                                                                                                           | \$              | 25,818,291            |
| Professional Services (survey, testing, geotech, etc.)                                          | 0.50%                                                                                                                                                                 | \$              | 695,716               | 0.50%                                                                                                                                                                                                                                    | \$              | 817,740               | 0.50%                                                                                                                                                                    | \$              | 1,052,001             | 0.50%                                                                                                                                                           | \$              | 1,358,857             |
| CM Preconstruction Services                                                                     |                                                                                                                                                                       | \$              | 600,000               |                                                                                                                                                                                                                                          | \$              | 600,000               |                                                                                                                                                                          | \$              | 600,000               |                                                                                                                                                                 | \$              | 600,000               |
| Commissioning                                                                                   |                                                                                                                                                                       | \$              | 500,000               |                                                                                                                                                                                                                                          | \$              | 500,000               |                                                                                                                                                                          | \$              | 500,000               |                                                                                                                                                                 | \$              | 500,000               |
| <b>Total</b>                                                                                    |                                                                                                                                                                       |                 | <b>\$ 19,188,615</b>  |                                                                                                                                                                                                                                          |                 | <b>\$ 22,361,252</b>  |                                                                                                                                                                          |                 | <b>\$ 28,452,025</b>  |                                                                                                                                                                 |                 | <b>\$ 36,430,294</b>  |
| Schematic Design Budget 15% of A/E and Prof. Serv. Fees                                         | 15.00%                                                                                                                                                                | \$              | 2,087,148             | 15.00%                                                                                                                                                                                                                                   | \$              | 2,453,221             | 15.00%                                                                                                                                                                   | \$              | 3,156,003             | 15.00%                                                                                                                                                          | \$              | 4,076,572             |
| <b>MISC. PROJECT COSTS</b>                                                                      |                                                                                                                                                                       |                 |                       |                                                                                                                                                                                                                                          |                 |                       |                                                                                                                                                                          |                 |                       |                                                                                                                                                                 |                 |                       |
| FF&E Allowance per New Student \$ 5,000 700                                                     |                                                                                                                                                                       |                 |                       |                                                                                                                                                                                                                                          |                 |                       |                                                                                                                                                                          |                 |                       |                                                                                                                                                                 |                 |                       |
| FF&E Allowance per Exist'g Student \$ 1,000 2000                                                |                                                                                                                                                                       |                 |                       |                                                                                                                                                                                                                                          |                 |                       |                                                                                                                                                                          |                 |                       |                                                                                                                                                                 |                 |                       |
| <b>FF&amp;E and Technology</b> \$ 5,500,000                                                     |                                                                                                                                                                       |                 | \$ 5,500,000          |                                                                                                                                                                                                                                          |                 | \$ 5,500,000          |                                                                                                                                                                          |                 | \$ 5,500,000          |                                                                                                                                                                 |                 | \$ 5,500,000          |
| Utilities, Testing, Moving, etc.                                                                | 0.75%                                                                                                                                                                 | \$              | 1,043,574             | 0.75%                                                                                                                                                                                                                                    | \$              | 1,226,611             | 0.75%                                                                                                                                                                    | \$              | 1,578,001             | 0.75%                                                                                                                                                           | \$              | 2,038,286             |
| Swing Space (Lease, Modularity, Transp. Etc.)                                                   | 4.00%                                                                                                                                                                 | \$              | 5,565,728             | 4.00%                                                                                                                                                                                                                                    | \$              | 6,541,924             | 4.00%                                                                                                                                                                    | \$              | 8,416,008             | 4.00%                                                                                                                                                           | \$              | 10,870,860            |
| <b>Total Misc. Project Costs</b>                                                                |                                                                                                                                                                       |                 | <b>\$ 12,109,301</b>  |                                                                                                                                                                                                                                          |                 | <b>\$ 13,268,534</b>  |                                                                                                                                                                          |                 | <b>\$ 15,494,009</b>  |                                                                                                                                                                 |                 | <b>\$ 18,409,146</b>  |
| <b>SITE ACQUISITION COST</b>                                                                    |                                                                                                                                                                       |                 |                       |                                                                                                                                                                                                                                          |                 |                       |                                                                                                                                                                          |                 |                       |                                                                                                                                                                 |                 |                       |
| Project Contingency                                                                             | 3.00%                                                                                                                                                                 | \$              | 4,174,296             | 3.00%                                                                                                                                                                                                                                    | \$              | 4,906,443             | 3.00%                                                                                                                                                                    | \$              | 6,312,006             | 3.00%                                                                                                                                                           | \$              | 8,153,145             |
| SUB-TOTAL                                                                                       |                                                                                                                                                                       | \$              | 29,906,484            |                                                                                                                                                                                                                                          | \$              | 33,994,306            |                                                                                                                                                                          | \$              | 41,842,032            |                                                                                                                                                                 | \$              | 62,992,584            |
| <b>TOTAL PROJECT COST</b>                                                                       | <b>30.5%</b>                                                                                                                                                          |                 | <b>\$ 181,572,560</b> | <b>29.8%</b>                                                                                                                                                                                                                             |                 | <b>\$ 212,261,728</b> | <b>28.9%</b>                                                                                                                                                             |                 | <b>\$ 271,178,244</b> | <b>28.2%</b>                                                                                                                                                    |                 | <b>\$ 348,352,647</b> |
| <b>OPTIONAL: TAPPAN GYM UPGRADES</b>                                                            | optional                                                                                                                                                              | Construct. Cost | Project Cost          | optional                                                                                                                                                                                                                                 | Construct. Cost | Project Cost          | optional                                                                                                                                                                 | Construct. Cost | Project Cost          | optional                                                                                                                                                        | Construct. Cost | Project Cost          |
| 1: Minimal Renovation                                                                           |                                                                                                                                                                       | \$ 11,664,700   | \$ 13,290,000         |                                                                                                                                                                                                                                          | \$ 11,664,700   | \$ 13,290,000         |                                                                                                                                                                          | \$ 11,664,700   | \$ 13,290,000         |                                                                                                                                                                 | \$ 11,664,700   | \$ 13,290,000         |
| 2.1: Min.Moderate Expansion - w/ Practice Gym                                                   |                                                                                                                                                                       | \$ 39,658,300   | \$ 52,706,000         | Replaces Schluntz                                                                                                                                                                                                                        | \$ 39,658,300   | \$ 52,706,000         |                                                                                                                                                                          | \$ 39,658,300   | \$ 52,706,000         |                                                                                                                                                                 | \$ 39,658,300   | \$ 52,706,000         |
| 2: Moderate Expansion w/Practice & Competition Gym                                              |                                                                                                                                                                       | \$ 46,852,100   | \$ 62,266,000         |                                                                                                                                                                                                                                          | \$ 46,852,100   | \$ 62,266,000         | see above                                                                                                                                                                | \$ 46,852,100   | \$ 62,266,000         |                                                                                                                                                                 | \$ 46,852,100   | \$ 62,266,000         |
| 3: Education Plan w/ Field House                                                                |                                                                                                                                                                       | \$ 55,168,800   | \$ 74,000,000         |                                                                                                                                                                                                                                          | \$ 55,168,800   | \$ 74,000,000         |                                                                                                                                                                          | \$ 55,168,800   | \$ 74,000,000         | see above                                                                                                                                                       | \$ 55,168,801   | \$ 74,000,000         |
| <b>OPTIONAL: UAB (Unified Arts Building)</b>                                                    | optional                                                                                                                                                              |                 | Project Cost          | optional                                                                                                                                                                                                                                 |                 | Project Cost          | optional                                                                                                                                                                 |                 | Project Cost          | optional                                                                                                                                                        |                 | Project Cost          |
| Program Renovations and or Expansion (Not Included)                                             | not included                                                                                                                                                          |                 | \$ -                  | not included                                                                                                                                                                                                                             |                 | \$ -                  | not included                                                                                                                                                             |                 | \$ -                  | not included                                                                                                                                                    |                 | \$ -                  |
| <b>OPTIONAL: CYPRESS PARK FIELD DEVELOPMENT</b>                                                 | optional                                                                                                                                                              |                 | Project Cost          | optional                                                                                                                                                                                                                                 |                 | Project Cost          | optional                                                                                                                                                                 |                 | Project Cost          | optional                                                                                                                                                        |                 | Project Cost          |
| 1. Cypress Park - Field Reno Project Cost                                                       |                                                                                                                                                                       |                 | \$ 13,335,500         |                                                                                                                                                                                                                                          |                 | \$ 13,335,500         |                                                                                                                                                                          |                 | \$ 13,335,500         |                                                                                                                                                                 |                 | \$ 13,335,500         |
| 2. Cypress Park - Field Reno & Greenough Road Re-Alignment                                      |                                                                                                                                                                       |                 | \$ 14,638,500         |                                                                                                                                                                                                                                          |                 | \$ 14,638,500         |                                                                                                                                                                          |                 | \$ 14,638,500         |                                                                                                                                                                 |                 | \$ 14,638,500         |
| <b>OPTIONAL: UNDERGROUND PARKING</b>                                                            | optional                                                                                                                                                              | Construct. Cost | Project Cost          | optional                                                                                                                                                                                                                                 | Construct. Cost | Project Cost          | optional                                                                                                                                                                 | Construct. Cost | Project Cost          | optional                                                                                                                                                        | Construct. Cost | Project Cost          |
| Parking Below Cypress Field at 3-Levels = 300 Cars                                              |                                                                                                                                                                       | \$ 35,219,000   | \$ 46,806,000         |                                                                                                                                                                                                                                          | \$ 35,219,000   | \$ 46,806,000         |                                                                                                                                                                          | \$ 35,219,000   | \$ 46,806,000         |                                                                                                                                                                 | \$ 35,219,000   | \$ 46,806,000         |
| Parking Below Cypress Field at 2-Levels = 200 Cars                                              |                                                                                                                                                                       | \$ 25,409,780   | \$ 33,769,600         |                                                                                                                                                                                                                                          | \$ 25,409,780   | \$ 33,769,600         |                                                                                                                                                                          | \$ 25,409,780   | \$ 33,769,600         |                                                                                                                                                                 | \$ 25,409,780   | \$ 33,769,600         |
| Parking Below Cypress Field at 1-Levels = 100 Cars                                              |                                                                                                                                                                       | \$ 15,840,110   | \$ 21,051,500         |                                                                                                                                                                                                                                          | \$ 15,840,110   | \$ 21,051,500         |                                                                                                                                                                          | \$ 15,840,110   | \$ 21,051,500         |                                                                                                                                                                 | \$ 15,840,110   | \$ 21,051,500         |

HARD COSTS

SOFT COSTS

OPTIONAL Project Costs

### 4. Order of Magnitude Costs Comparison

#### Order of Magnitude Cost Comparison

| Area Summary                          |  |
|---------------------------------------|--|
| EXISTING TO REMAIN GROSS SQ. FT (GSF) |  |
| MAIN BHS for 10, 11, & 12             |  |
| GROSS SQ. FOOTAGE (GSF)               |  |
| STAND ALONE 9TH GRADE ACADEMY         |  |
| New Construction Area                 |  |
| MAIN BHS 10, 11, & 12 Grades          |  |
| New Construction Area                 |  |
| Existing Area to Remain               |  |

#### OPTION 4: Stand-alone 9th Grade Academy

| 4A. With BHS Renovated Science Floor |         |              |
|--------------------------------------|---------|--------------|
| GSF at BHS                           |         | 342,670      |
| Consolidated on 3rd Floor            |         |              |
| NEW                                  | EXIST   | TOTAL at BHS |
| 6,800                                | 342,670 | 349,470      |
|                                      |         | TOTAL Campus |
| 109,810                              |         | 459,280      |
| 6,800                                | 342,670 |              |
| UAB & Tappan areas not included      |         |              |

| 4B. With New Science STEM Wing at BHS |         |              |
|---------------------------------------|---------|--------------|
| GSF at BHS                            |         | 342,670      |
| Surrounding Existing Roberts Wing     |         |              |
| NEW                                   | EXIST   | TOTAL at BHS |
| 51,650                                | 335,000 | 386,650      |
|                                       |         | TOTAL Campus |
| 109,810                               |         | 496,460      |
| 51,650                                | 316,900 | 69,750       |
|                                       | 18,100  |              |
| UAB & Tappan areas not included       |         |              |

#### OPTION 4: Stand-alone 9th Grade Academy over MBTA

| 4C. With BHS Renovated Science Floor |         |              |
|--------------------------------------|---------|--------------|
| GSF at BHS                           |         | 342,670      |
| Consolidated on 3rd Floor            |         |              |
| NEW                                  | EXIST   | TOTAL at BHS |
| 6,800                                | 342,670 | 349,470      |
|                                      |         | TOTAL Campus |
| 112,700                              |         | 462,170      |
| 6,800                                | 342,670 |              |
| UAB & Tappan areas not included      |         |              |

| 4D. With New Science STEM Wing at BHS |         |              |
|---------------------------------------|---------|--------------|
| GSF at BHS                            |         | 342,670      |
| Surrounding Existing Roberts Wing     |         |              |
| NEW                                   | EXIST   | TOTAL at BHS |
| 51,650                                | 335,000 | 386,650      |
|                                       |         | TOTAL Campus |
| 112,700                               |         | 499,350      |
| 51,650                                | 316,900 | 69,750       |
|                                       | 18,100  |              |
| UAB & Tappan areas not included       |         |              |

#### HARD COSTS

| PROJECT BUDGET CATEGORIES                                      |  |
|----------------------------------------------------------------|--|
| NEW STAND-ALONE CONSTRUCTION                                   |  |
| 4B/4C over MBTA Allowance                                      |  |
| MAIN BHS CAMPUS                                                |  |
| New Construction Cost                                          |  |
| Renovation Construction Cost                                   |  |
| 4B/4D: Renov old Science to new CR                             |  |
| 4A/4C: Renov old Science to new Science                        |  |
| 4A/4C: Renov CR to new Collab.                                 |  |
| BHS Window Replacement                                         |  |
| Misc. Repair portions of Roof                                  |  |
| Misc. Repair                                                   |  |
| Total Construction Cost                                        |  |
| TOTAL CONSTRUCTION COST                                        |  |
| Construction Contingency                                       |  |
| PROFESSIONAL FEES & SERVICES                                   |  |
| OPM Fees                                                       |  |
| A/E Fees                                                       |  |
| Professional Services (survey, testing, geotech, etc.)         |  |
| CM Preconstruction Services                                    |  |
| Commissioning                                                  |  |
| Total                                                          |  |
| Schematic Design Budget 15% of A/E & Prof. Serv. Fees          |  |
| MISC. PROJECT COSTS                                            |  |
| FF&E Allowance per New Student \$ 5,000 700                    |  |
| FF&E Allowance per Exist'g Student \$ 1,000 2000               |  |
| FF&E and Technology \$ 5,500,000                               |  |
| Utilities, Testing, Moving, etc.                               |  |
| Swing Space (Lease, Modulators, Transp. Etc.) with Stand-Alone |  |
| Total Misc. Project Costs                                      |  |
| SITE ACQUISITION COST                                          |  |
| Project Contingency                                            |  |
| SUB-TOTAL                                                      |  |
| TOTAL PROJECT COST                                             |  |

| 4A. With BHS Renovated Science Floor    |                 |                |
|-----------------------------------------|-----------------|----------------|
| NEW 9TH GRADE ACAD.                     |                 | \$ 55,753,000  |
| MAIN BHS CAMPUS                         |                 |                |
| New 1-Floor (5) Classroom Addition      |                 |                |
| \$ 4,350,000                            |                 | \$ 4,350,000   |
|                                         |                 |                |
| 32,900                                  | \$11,021,500    |                |
| 4,000                                   | \$1,340,200     | \$ 12,361,700  |
|                                         | 5,624,400       |                |
|                                         | 1,000,000       |                |
|                                         | 2,013,900       |                |
|                                         | Reno. Allowance | \$ 8,638,300   |
|                                         | 21,000,000      |                |
|                                         |                 | \$ 81,103,000  |
| 5.00%                                   | \$ 4,055,150    | \$ 85,158,150  |
| % of construct.cost without contingency |                 |                |
| 3.00%                                   | \$ 2,433,090    |                |
| 9.50%                                   | \$ 7,704,785    |                |
| 0.50%                                   | \$ 405,515      |                |
|                                         | \$ 600,000      |                |
|                                         | \$ 500,000      |                |
| 15.00%                                  | \$ 1,216,545    | \$ 11,643,390  |
|                                         |                 |                |
|                                         |                 | \$ 5,500,000   |
| 0.75%                                   | \$ 608,273      |                |
| 0.00%                                   | not required    |                |
|                                         |                 | \$ 6,108,273   |
| tbd                                     | Allowance       | \$ -           |
| 3.00%                                   | \$ 2,433,090    | \$ 2,433,090   |
|                                         | \$ 20,184,753   |                |
| 29.9%                                   |                 | \$ 105,342,903 |

| 4B. With New Science STEM Wing at BHS                 |                 |                |
|-------------------------------------------------------|-----------------|----------------|
| NEW 9TH GRADE ACAD.                                   |                 | \$ 55,753,000  |
| MAIN BHS CAMPUS                                       |                 |                |
| New 3-Floor Science STEM with Roberts-Wing Renovation |                 |                |
| \$ 25,520,000                                         | \$6,744,250     | \$ 32,264,250  |
|                                                       |                 |                |
|                                                       |                 |                |
|                                                       | 5,624,400       |                |
|                                                       | 1,000,000       |                |
|                                                       | 233,350         |                |
|                                                       | Reno. Allowance | \$ 14,255,750  |
|                                                       | 21,000,000      |                |
|                                                       |                 | \$ 102,273,000 |
| 5.00%                                                 | \$ 5,113,650    | \$ 107,386,650 |
| % of construct.cost without contingency               |                 |                |
| 3.00%                                                 | \$ 3,068,190    |                |
| 9.50%                                                 | \$ 9,715,935    |                |
| 0.50%                                                 | \$ 511,365      |                |
|                                                       | \$ 600,000      |                |
|                                                       | \$ 500,000      |                |
| 15.00%                                                | \$ 1,534,095    | \$ 14,395,490  |
|                                                       |                 |                |
|                                                       |                 | \$ 5,500,000   |
| 0.75%                                                 | \$ 767,048      |                |
| 0.00%                                                 | not required    |                |
|                                                       |                 | \$ 6,267,048   |
| tbd                                                   | Allowance       | \$ -           |
| 3.00%                                                 | \$ 3,068,190    | \$ 3,068,190   |
|                                                       | \$ 23,730,728   |                |
| 28.2%                                                 |                 | \$ 131,117,378 |

| 4C. With BHS Renovated Science Floor    |                 |                |
|-----------------------------------------|-----------------|----------------|
| NEW 9TH GRADE ACAD.                     |                 | \$ 58,266,700  |
|                                         |                 | \$ 2,000,000   |
| MAIN BHS CAMPUS                         |                 |                |
| New 1-Floor (5) Classroom Addition      |                 |                |
| \$ 4,350,000                            |                 | \$ 4,350,000   |
|                                         |                 |                |
|                                         |                 |                |
|                                         |                 |                |
|                                         | 5,624,400       |                |
|                                         | 1,000,000       |                |
|                                         | 2,013,900       |                |
|                                         | Reno. Allowance | \$ 8,638,300   |
|                                         | 21,000,000      |                |
|                                         |                 | \$ 85,616,700  |
| 5.00%                                   | \$ 4,280,835    | \$ 89,897,535  |
| % of construct.cost without contingency |                 |                |
| 3.00%                                   | \$ 2,568,501    |                |
| 9.50%                                   | \$ 8,133,587    |                |
| 0.50%                                   | \$ 428,084      |                |
|                                         | \$ 600,000      |                |
|                                         | \$ 500,000      |                |
| 15.00%                                  | \$ 1,284,251    | \$ 12,230,171  |
|                                         |                 |                |
|                                         |                 | \$ 5,500,000   |
| 0.75%                                   | \$ 642,125      |                |
| 0.00%                                   | not required    |                |
|                                         |                 | \$ 6,142,125   |
| tbd                                     | Allowance       | \$ -           |
| 3.00%                                   | \$ 2,568,501    | \$ 2,568,501   |
|                                         | \$ 20,940,797   |                |
| 29.5%                                   |                 | \$ 110,838,332 |

| 4D. With New Science STEM Wing at BHS                 |                 |                |
|-------------------------------------------------------|-----------------|----------------|
| NEW 9TH GRADE ACAD.                                   |                 | \$ 58,266,700  |
|                                                       |                 | \$ 2,000,000   |
| MAIN BHS CAMPUS                                       |                 |                |
| New 3-Floor Science STEM with Roberts-Wing Renovation |                 |                |
| \$ 25,520,000                                         | \$6,744,250     | \$ 32,264,250  |
|                                                       |                 |                |
|                                                       |                 |                |
|                                                       |                 |                |
|                                                       | 5,624,400       |                |
|                                                       | 1,000,000       |                |
|                                                       | 233,350         |                |
|                                                       | Reno. Allowance | \$ 14,255,750  |
|                                                       | 21,000,000      |                |
|                                                       |                 | \$ 106,786,700 |
| 5.00%                                                 | \$ 5,339,335    | \$ 112,126,035 |
| % of construct.cost without contingency               |                 |                |
| 3.00%                                                 | \$ 3,203,601    |                |
| 9.50%                                                 | \$ 10,144,737   |                |
| 0.50%                                                 | \$ 533,934      |                |
|                                                       | \$ 600,000      |                |
|                                                       | \$ 500,000      |                |
| 15.00%                                                | \$ 1,601,801    | \$ 14,982,271  |
|                                                       |                 |                |
|                                                       |                 | \$ 5,500,000   |
| 0.75%                                                 | \$ 800,900      |                |
| 0.00%                                                 | not require     |                |
|                                                       |                 | \$ 6,300,900   |
| tbd                                                   | Allowance       | \$ -           |
| 3.00%                                                 | \$ 3,203,601    | \$ 3,203,601   |
|                                                       | \$ 24,486,772   |                |
| 27.9%                                                 |                 | \$ 136,612,807 |

#### SOFT COSTS

| OPTIONAL: TAPPAN GYM UPGRADES                              |  |
|------------------------------------------------------------|--|
| 1: Minimal Renovation                                      |  |
| 2.1: Min.Moderate Expansion - w/ Practice Gym              |  |
| 2: Moderate Expansion - w/Practice & Competition Gym       |  |
| 3: Education Plan w/ Field House                           |  |
| OPTIONAL: UAB (Unified Arts Building)                      |  |
| Program Renovations and or Expansion (Not Included)        |  |
| OPTIONAL: CYPRESS PARK FIELD DEVELOPMENT                   |  |
| 1. Cypress Park - Field Reno Project Cost                  |  |
| 2. Cypress Park - Field Reno & Greenough Road Re-Alignment |  |
| OPTIONAL: UNDERGROUND PARKING                              |  |
| Parking Below Cypress Field at 3-Levels = 300 Cars         |  |
| Parking Below Cypress Field at 2-Levels = 200 Cars         |  |
| Parking Below Cypress Field at 1-Levels = 100 Cars         |  |

| optional              | Construct. Cost | Project Cost   |
|-----------------------|-----------------|----------------|
|                       | \$ 11,664,700   | \$ 13,290,000  |
|                       | \$ 39,658,300   | \$ 52,706,000  |
|                       | \$ 46,852,100   | \$ 62,266,000  |
|                       | \$ 55,168,800   | \$ 74,000,000  |
| optional not included |                 | Project Cost - |
| optional              | \$ 10,203,000   | \$ 13,335,500  |
|                       | \$ 11,200,000   | \$ 14,638,500  |
| optional              | \$ 35,219,000   | \$ 46,806,000  |
|                       | \$ 25,409,780   | \$ 33,769,600  |
|                       | \$ 15,840,110   | \$ 21,051,500  |

| optional              | Construct. Cost | Project Cost   |
|-----------------------|-----------------|----------------|
|                       | \$ 11,664,700   | \$ 13,290,000  |
|                       | \$ 39,658,300   | \$ 52,706,000  |
|                       | \$ 46,852,100   | \$ 62,266,000  |
|                       | \$ 55,168,800   | \$ 74,000,000  |
| optional not included |                 | Project Cost - |
| optional              | \$ 10,203,000   | \$ 13,335,500  |
|                       | \$ 11,200,000   | \$ 14,638,500  |
| optional              | \$ 35,219,000   | \$ 46,806,000  |
|                       | \$ 25,409,780   | \$ 33,769,600  |
|                       | \$ 15,840,110   | \$ 21,051,500  |

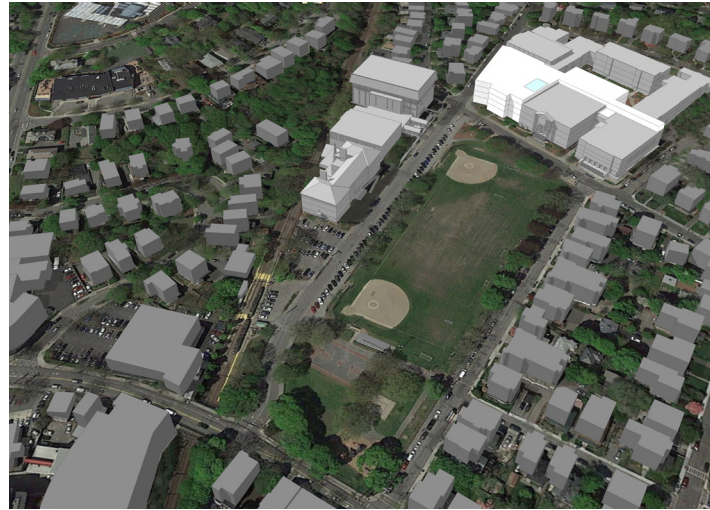
| optional              | Construct. Cost | Project Cost   |
|-----------------------|-----------------|----------------|
|                       | \$ 11,664,700   | \$ 13,290,000  |
|                       | \$ 39,658,300   | \$ 52,706,000  |
|                       | \$ 46,852,100   | \$ 62,266,000  |
|                       | \$ 55,168,800   | \$ 74,000,000  |
| optional not included |                 | Project Cost - |
| optional              | \$ 10,203,000   | \$ 13,335,500  |
|                       | \$ 11,200,000   | \$ 14,638,500  |
| optional              | \$ 35,219,000   | \$ 46,806,000  |
|                       | \$ 25,409,780   | \$ 33,769,600  |
|                       | \$ 15,840,110   | \$ 21,051,500  |

| optional              | Construct. Cost | Project Cost   |
|-----------------------|-----------------|----------------|
|                       | \$ 11,664,700   | \$ 13,290,000  |
|                       | \$ 39,658,300   | \$ 52,706,000  |
|                       | \$ 46,852,100   | \$ 62,266,000  |
|                       | \$ 55,168,800   | \$ 74,000,000  |
| optional not included |                 | Project Cost - |
| optional              | \$ 10,203,000   | \$ 13,335,500  |
|                       | \$ 11,200,000   | \$ 14,638,500  |
| optional              | \$ 35,219,000   | \$ 46,806,000  |
|                       | \$ 25,409,780   | \$ 33,769,600  |
|                       | \$ 15,840,110   | \$ 21,051,500  |

#### OPTIONAL Project Costs

4. Matrix of Options

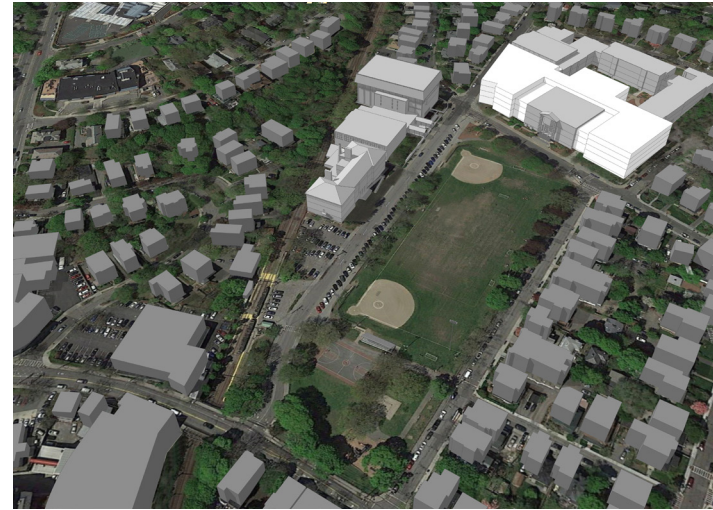
Option 1



Existing to Remain at BHS-Greenough **294,310 sf**  
 New Construction at BHS-Greenough **165,000 sf**

Project Cost **\$181,572,560**

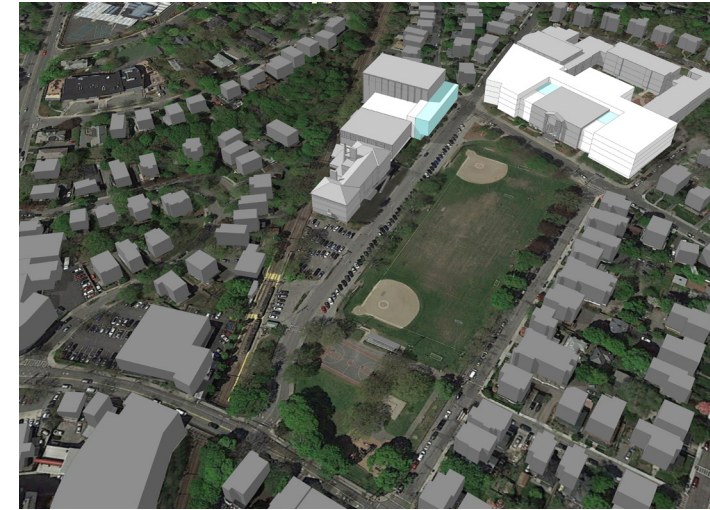
Option 2



Existing to Remain at BHS-Greenough **242,280 sf**  
 New Construction at BHS-Greenough **228,690 sf**

Project Cost **\$212,261,728**

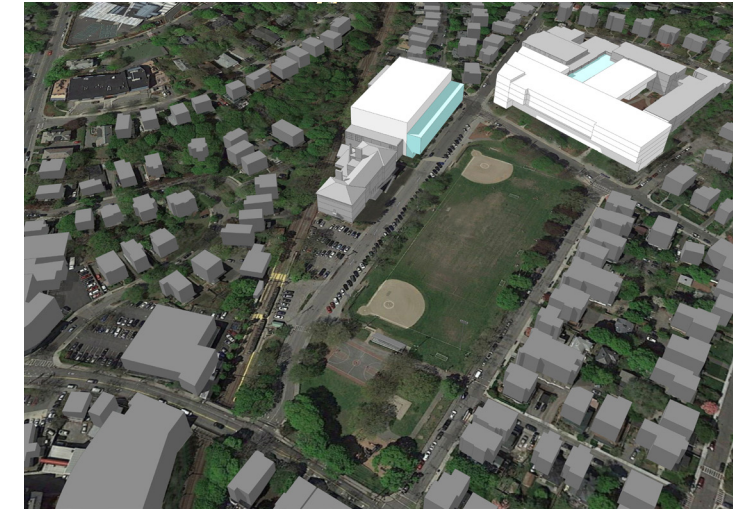
Option 2 with Tappan Gym Opt.2



Existing to Remain at BHS-Greenough **242,280 sf**  
 New Construction at BHS-Greenough **228,690 sf**  
  
 Renovation at Tappan Gym **60,330 sf**  
 New Construction at Tappan Gym **49,300 sf**

Project Cost **\$271,178,244**

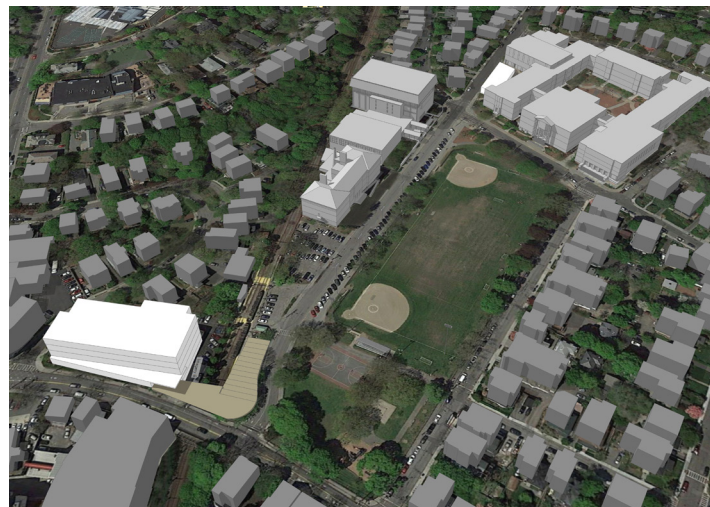
Option 3 with Tappan Gym Opt.3



Existing to Remain at BHS-Greenough **181,050 sf**  
 New Construction at BHS-Greenough **298,130 sf**  
  
 Renovation at Tappan Gym **60,130 sf**  
 New Construction at Tappan Gym **64,050 sf**

Project Cost **\$348,352,647**

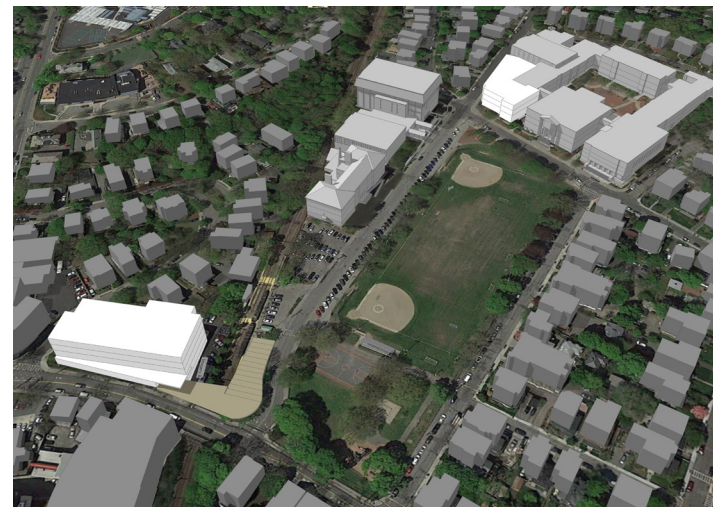
Option 4A



Renovate Existing BHS 3rd Floor Science **35,500 sf**  
 New Construction at BHS-Greenough **7,500 sf**  
  
 New Construction Cypress Building **109,810 sf**

Project Cost **\$105,342,903**

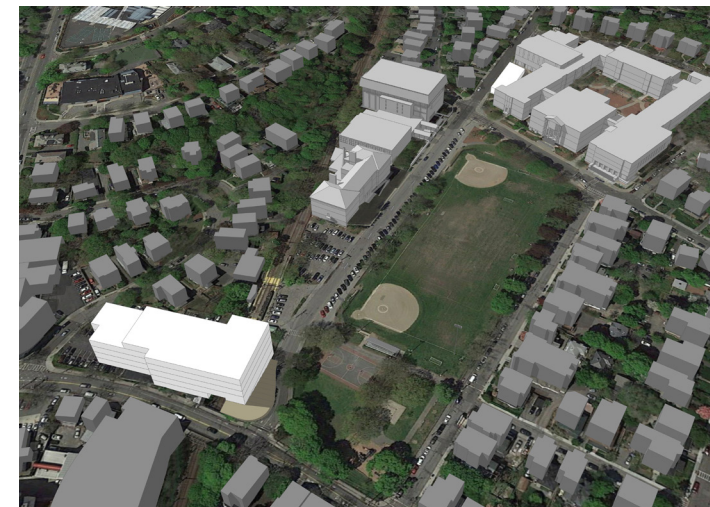
Option 4B



Renovate Existing BHS 3rd Floor Science into Classrooms **36,500 sf**  
 New Construction at BHS-Greenough **51,650 sf**  
  
 New Construction Cypress Building **109,810 sf**

Project Cost **\$131,117,378**

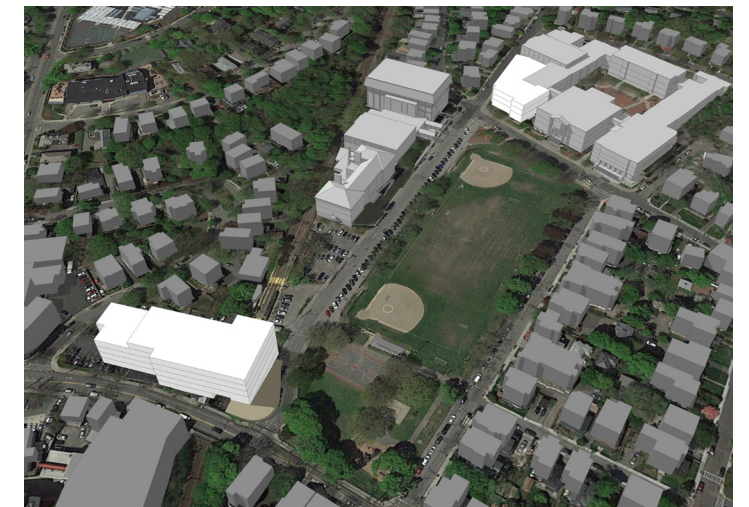
Option 4C



Renovate Existing BHS 3rd Floor Science **35,500 sf**  
 New Construction at BHS-Greenough **7,500 sf**  
  
 New Construction Cypress Building over the MBTA **112,700 sf**

Project Cost **\$110,838,332**

Option 4D



Renovate Existing BHS 3rd Floor Science into Classrooms **36,500 sf**  
 New Construction at BHS-Greenough **51,650 sf**  
  
 New Construction Cypress Building over the MBTA **112,700 sf**

Project Cost **\$136,612,807**

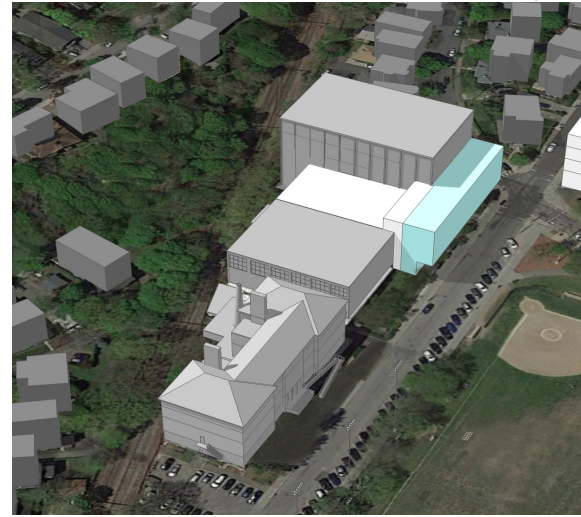
4. OPTIONAL PROJECTS | Matrix of Options

Tappan 1. Minimal Renovations



Project Cost \$13,290,000

Tappan 2. Moderate Expansion with Competition & Practice Gyms



Note: Option 2. Tappan Gym Moderate Expansion is included in the program, planning for the BHS OPTION 2. State High School Standards. Costs have been summarized both with and without this Tappan Gym Upgrade

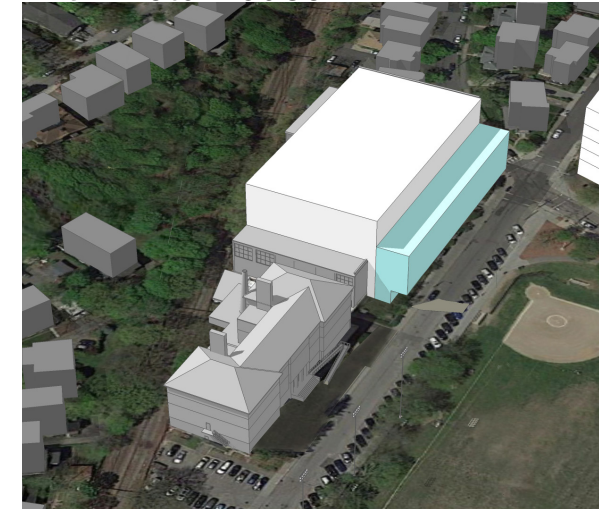
Project Cost \$62,266,000

Tappan 2.1 Min.Moderate Expansion with Practice Gym only



Project Cost \$52,706,000

Tappan 3. Education Plan with Field House



Note: Option 3. Tappan Education Plan with Field House is included in the program, planning, and costs for the BHS OPTION 3. Education Plan

Project Cost \$74,000,000

Cypress Park 1. Field & Playground Renovation



Project Cost \$13,335,500

Cypress Park 2. Field & Playground Renovation with Greenough St. Re-alignment



Project Cost \$14,638,500

Underground Parking below Cypress Park Field



Project Cost  
 1-Level 100 cars = \$21,051,500  
 2-Levels 200 cars = \$33,769,600  
 3-Levels 300 cars = \$46,806,000

### Order of Magnitude Cost Scenarios

|                                                                  | CONSTRUCT.     | PROJECT        |
|------------------------------------------------------------------|----------------|----------------|
| <b>OPTION 4A - SCENARIOS</b>                                     |                |                |
| OPT.4A: 9th Academy                                              | \$ 55,753,000  |                |
| BHS Renovated Science                                            | \$ 4,350,000   |                |
| BHS Renovation Science                                           | \$ 11,018,150  |                |
| BHS Renovation CR/Collab                                         | \$ 1,020,000   |                |
| BHS Window Repair                                                | \$ 5,624,400   |                |
| BHS Roof Repair                                                  | 1,709,500      |                |
| BHS Misc. Repair                                                 | 1,627,950      |                |
| SUB-TOTAL                                                        | \$ 81,103,000  | \$ 105,342,903 |
| 9th Academy Site Acquisition                                     |                | not included   |
| Tappan Gym, UAB, Cypress Field & Parking                         |                | not included   |
| <b>4A w/ CYPRESS PARK Only</b>                                   |                |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL                                                        | \$ 118,678,403 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 119,981,403 |                |
| <b>4A w/ TAPPAN Min.GYM Only</b>                                 |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| TOTAL PROJECT COST                                               | \$ 118,632,903 |                |
| <b>4A w/ TAPPAN 2.1 GYM Only</b>                                 |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| TOTAL PROJECT COST                                               | \$ 158,048,903 |                |
| <b>4A w/ TAPPAN Min.GYM &amp; CYPRESS PARK</b>                   |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL                                                        | \$ 131,968,403 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 133,271,403 |                |
| <b>4A w/ TAPPAN 2.1 GYM &amp; CYPRESS PARK</b>                   |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL                                                        | \$ 171,384,403 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 172,687,403 |                |
| <b>4A w/ CYPRESS PARK &amp; PARKING</b>                          |                |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels                              | \$ 46,806,000  |                |
| TOTAL PROJECT COST                                               | \$ 166,787,403 |                |
| <b>4A w/ Min.GYM, CYPRESS PARK &amp; PARKING</b>                 |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels (or see 1 and 2-Lvl Parking) | \$ 46,806,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 180,077,403 |                |
| <b>4A w/ 2.1 GYM, CYPRESS PARK &amp; PARKING</b>                 |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels (or see 1 and 2-Lvl Parking) | \$ 46,806,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 219,493,403 |                |

|                                                                  | CONSTRUCT.     | PROJECT        |
|------------------------------------------------------------------|----------------|----------------|
| <b>OPTION 4B - SCENARIOS</b>                                     |                |                |
| OPT.4B: 9th Academy                                              | \$ 55,753,000  |                |
| BHS New Science Wing                                             | \$ 25,520,000  |                |
| BHS Renovations                                                  | \$ 21,000,000  |                |
| BHS Program Reno                                                 |                |                |
| BHS Window Repair                                                |                |                |
| BHS Roof Repair                                                  |                |                |
| BHS Misc. Repair                                                 |                |                |
| SUB-TOTAL                                                        | \$ 102,273,000 | \$ 131,117,378 |
| 9th Academy Site Acquisition                                     |                | not included   |
| Tappan Gym, UAB, Cypress Field & Parking                         |                | not included   |
| <b>4B w/ CYPRESS PARK Only</b>                                   |                |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 144,452,878 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 145,755,878 |                |
| <b>4B w/ TAPPAN Min.GYM Only</b>                                 |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| TOTAL PROJECT COST                                               | \$ 144,407,378 |                |
| <b>4B w/ TAPPAN GYM Only</b>                                     |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 183,823,378 |                |
| <b>4B w/ TAPPAN Min.GYM &amp; CYPRESS PARK</b>                   |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL                                                        | \$ 157,742,878 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 159,045,878 |                |
| <b>4B w/ TAPPAN 2.1 GYM &amp; CYPRESS PARK</b>                   |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL                                                        | \$ 197,158,878 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 198,461,878 |                |
| <b>4B w/ CYPRESS PARK &amp; PARKING</b>                          |                |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels                              | \$ 46,806,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 192,561,878 |                |
| <b>4B w/ Min.GYM, CYPRESS PARK &amp; PARKING</b>                 |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels (or see 1 and 2-Lvl Parking) | \$ 46,806,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 205,851,878 |                |
| <b>4B w/ 2.1 GYM, CYPRESS PARK &amp; PARKING</b>                 |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels (or see 1 and 2-Lvl Parking) | \$ 46,806,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 245,267,878 |                |

|                                                                  | CONSTRUCT.     | PROJECT        |
|------------------------------------------------------------------|----------------|----------------|
| <b>OPTION 4C - SCENARIOS</b>                                     |                |                |
| OPT.4C: 9th Academy                                              | \$ 58,266,700  |                |
| MBTA Allowance                                                   | \$ 2,000,000   |                |
| BHS Renovated Science                                            | \$ 4,350,000   |                |
| BHS Renovation Science                                           | \$ 11,018,150  |                |
| BHS Renovation CR/Collab                                         | \$ 1,020,000   |                |
| BHS Window Repair                                                | \$ 5,624,400   |                |
| BHS Roof Repair                                                  | 1,709,500      |                |
| BHS Misc. Repair                                                 | 1,627,950      |                |
| SUB-TOTAL                                                        | \$ 85,616,700  | \$ 110,838,332 |
| 9th Academy Site Acquisition                                     |                | not included   |
| Tappan Gym, UAB, Cypress Field & Parking                         |                | not included   |
| <b>4C w/ CYPRESS PARK Only</b>                                   |                |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL                                                        | \$ 124,173,832 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 125,476,832 |                |
| <b>4C w/ TAPPAN Min.GYM Only</b>                                 |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| TOTAL PROJECT COST                                               | \$ 124,128,332 |                |
| <b>4C w/ TAPPAN GYM Only</b>                                     |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| TOTAL PROJECT COST                                               | \$ 163,544,332 |                |
| <b>4C w/ TAPPAN Min.GYM &amp; CYPRESS PARK</b>                   |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL                                                        | \$ 137,463,832 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 138,766,832 |                |
| <b>4C w/ TAPPAN 2.1 GYM &amp; CYPRESS PARK</b>                   |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL                                                        | \$ 176,879,832 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 178,182,832 |                |
| <b>4C w/ CYPRESS PARK &amp; PARKING</b>                          |                |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels                              | \$ 46,806,000  |                |
| TOTAL PROJECT COST                                               | \$ 172,282,832 |                |
| <b>4C w/ Min.GYM, CYPRESS PARK &amp; PARKING</b>                 |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels (or see 1 and 2-Lvl Parking) | \$ 46,806,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 185,572,832 |                |
| <b>4C w/ 2.1 GYM, CYPRESS PARK &amp; PARKING</b>                 |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels (or see 1 and 2-Lvl Parking) | \$ 46,806,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 224,988,832 |                |

### 4. Order of Magnitude Cost Scenarios

|                                                                  | CONSTRUCT.     | PROJECT        |
|------------------------------------------------------------------|----------------|----------------|
| <b>OPTION 4D - SCENARIOS</b>                                     |                |                |
| OPT.4D: 9th Academy                                              | \$ 58,266,700  |                |
| BHS New Science Wing                                             | \$ 25,520,000  |                |
| BHS Renovations                                                  | \$ 21,000,000  |                |
| BHS Program Reno                                                 |                |                |
| BHS Window Repair                                                |                |                |
| BHS Roof Repair                                                  |                |                |
| BHS Misc. Repair                                                 |                |                |
| SUB-TOTAL                                                        | \$ 106,786,700 | \$ 136,612,807 |
| 9th Academy Site Acquisition                                     |                | not included   |
| Tappan Gym, UAB, Cypress Field & Parking                         |                | not included   |
| <b>4D w/ CYPRESS PARK Only</b>                                   |                |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 149,948,307 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 151,251,307 |                |
| <b>4D w/ TAPPAN Min.GYM Only</b>                                 |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| TOTAL PROJECT COST                                               | \$ 149,902,807 |                |
| <b>4D w/ TAPPAN GYM Only</b>                                     |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 189,318,807 |                |
| <b>4D w/ TAPPAN Min.GYM &amp; CYPRESS PARK</b>                   |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL                                                        | \$ 163,238,307 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 164,541,307 |                |
| <b>4D w/ TAPPAN 2.1 GYM &amp; CYPRESS PARK</b>                   |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| Cypress Park Field Renovation                                    | \$ 13,335,500  |                |
| SUB-TOTAL                                                        | \$ 202,654,307 |                |
| Re-Align Greenough St. ADDs                                      | \$ 1,303,000   |                |
| TOTAL PROJECT COST                                               | \$ 203,957,307 |                |
| <b>4D w/ CYPRESS PARK &amp; PARKING</b>                          |                |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels                              | \$ 46,806,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 198,057,307 |                |
| <b>4D w/ Min.GYM, CYPRESS PARK &amp; PARKING</b>                 |                |                |
| Tappan Gym Min.                                                  | \$ 13,290,000  |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels (or see 1 and 2-Lvl Parking) | \$ 46,806,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 211,347,307 |                |
| <b>4D w/ 2.1 GYM, CYPRESS PARK &amp; PARKING</b>                 |                |                |
| Tappan Gym Min/Mod.2.1                                           | \$ 52,706,000  |                |
| Cypress Park Field Renovation & Re-Align Rd                      | \$ 14,638,500  |                |
| Parking Under Cypress Park 3-Levels (or see 1 and 2-Lvl Parking) | \$ 46,806,000  |                |
| SUB-TOTAL PROJECT COST                                           | \$ 250,763,307 |                |



## 5. Preferred Solution

|                                                                          |               |
|--------------------------------------------------------------------------|---------------|
| <b>Campus Plan Overview Massing</b>                                      | 5.242 - 5.243 |
| <b>Campus Site Plan and Section Options</b>                              | 5.244 - 5.247 |
| <b>BHS Improvements</b>                                                  | 5.248 - 5.251 |
| New STEM-Wing & 3rd Floor Renovations<br>Floor Plan Diagrams and Massing |               |
| <b>New Cypress Building</b>                                              | 5.252 - 5.254 |
| 9th Grade Academic Building<br>Floor Plan Diagrams and Massing           |               |
| <b>Building Code &amp; Accessibility<br/>Compliance Narrative</b>        | 5.255         |
|                                                                          | 5.256         |
| <b>Building Systems Narrative</b>                                        | 5.256         |
|                                                                          | 5.256         |
| <b>Summary of Cost Estimate</b>                                          | 5.257         |
|                                                                          | 5.257         |
| <b>Preliminary Phasing Approach</b>                                      | 5.257         |
|                                                                          | 5.258         |
| <b>Project Schedule</b>                                                  | 5.258         |

## 5. Preferred Solution | BHS Campus Expansion

### New Cypress Building with BHS New STEM-Wing Addition & 3rd Floor Renovation

#### Existing Area to Remain at BHS Greenough Building

335,000 sf

#### New Construction Area at BHS Greenough Building

51,650 sf

#### Total Area at BHS Greenough Building

386,650 sf

#### New Construction Area at Cypress Building

112,700 sf

#### Total Project Area

499,350 sf

#### Total Project Cost

\$136,612,807

Note that construction and project costs for the Optional Projects at Tappan Gym, the Unified Art Building, and the Cypress Park Field and Playground Renovations are not included in the Preferred Solution - Option 4D costs indicated above.

#### A Unified Campus

The Preferred Solution, Option 4D, places a significant new building for the Brookline High School on the corner of Cypress Street, Brington Road, and Tappan Street. This 9th Grade academic building becomes a gateway to the Brookline High School campus, whether approaching the campus from Cypress Street or from Route 9.

Bookending the Cypress Building is the second component of Option 4D – the new STEM wing addition to the Roberts Wing of the Greenough building, on the corner of Greenough Street and Tappan Street.

The 9th Grade academic building spans the MBTA Green Line to front on Tappan Street, extending the face of the Brookline High School from the academic building on Greenough Street to Cypress Street. The building completes the campus edge along Cypress Field established by the Tappan Gym, Kirrane Pool, and the Unified Arts Building.

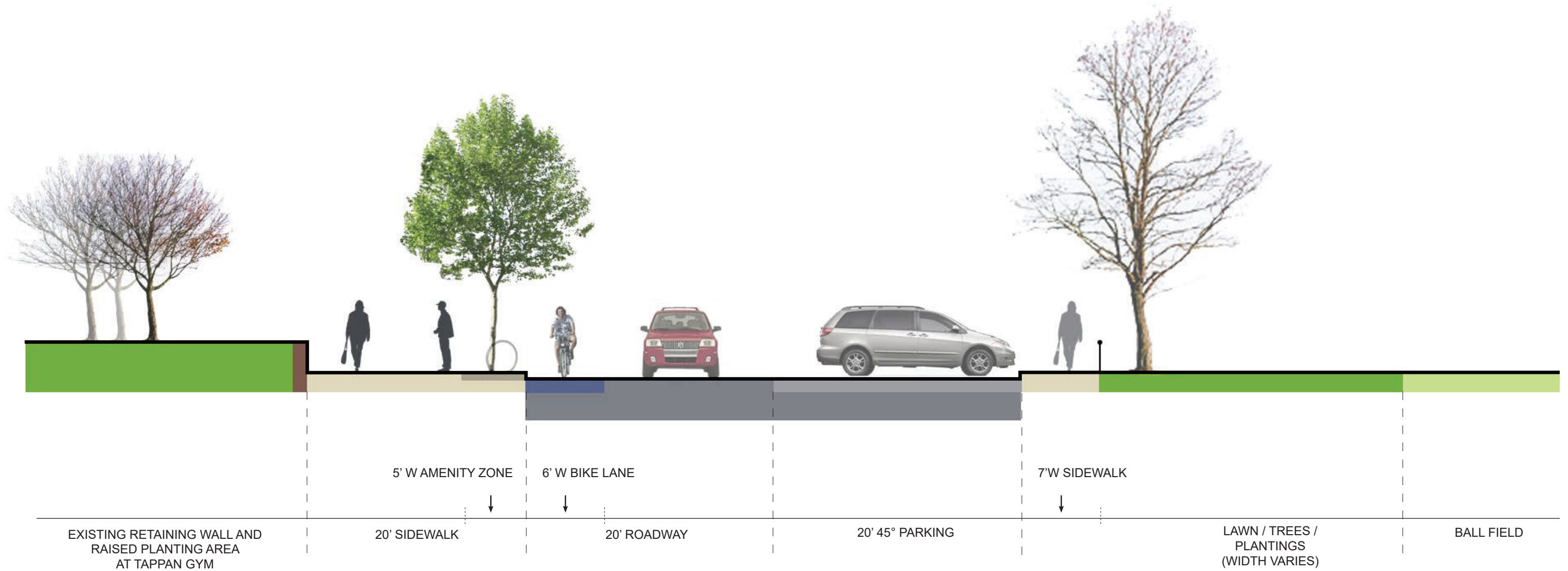
The campus site plan proposes the development of an active pedestrian way that ties the distinct campus buildings and Cypress Field into an open unified Brookline High School campus.

Other potential projects within Option 4D may include additional BHS -Greenough Building improvements such as window replacement, roof repairs resulting from renovations, and minor systems repairs, as well as additional optional projects at Tappan Gym, the Unified Art Building, and Cypress Park Field and Playground Renovations.

**5. Preferred Solution** | BHS Campus Plan Overview Massing  
Option 4D - New Cypress Building with  
BHS New STEM-Wing Addition & 3rd Floor Renovation



### 5. Preferred Solution | BHS Campus Expansion Campus Site Section at Tappan St.



NOTE: AMENITY ZONE COULD INCLUDE STREET TREES, BENCHES, BIKE RACKS, AND TRASH RECEPTACLES.

TAPPAN STREET TYPICAL SECTION OPTION 1

5. Preferred Solution | BHS Campus Expansion  
Campus Site Plan

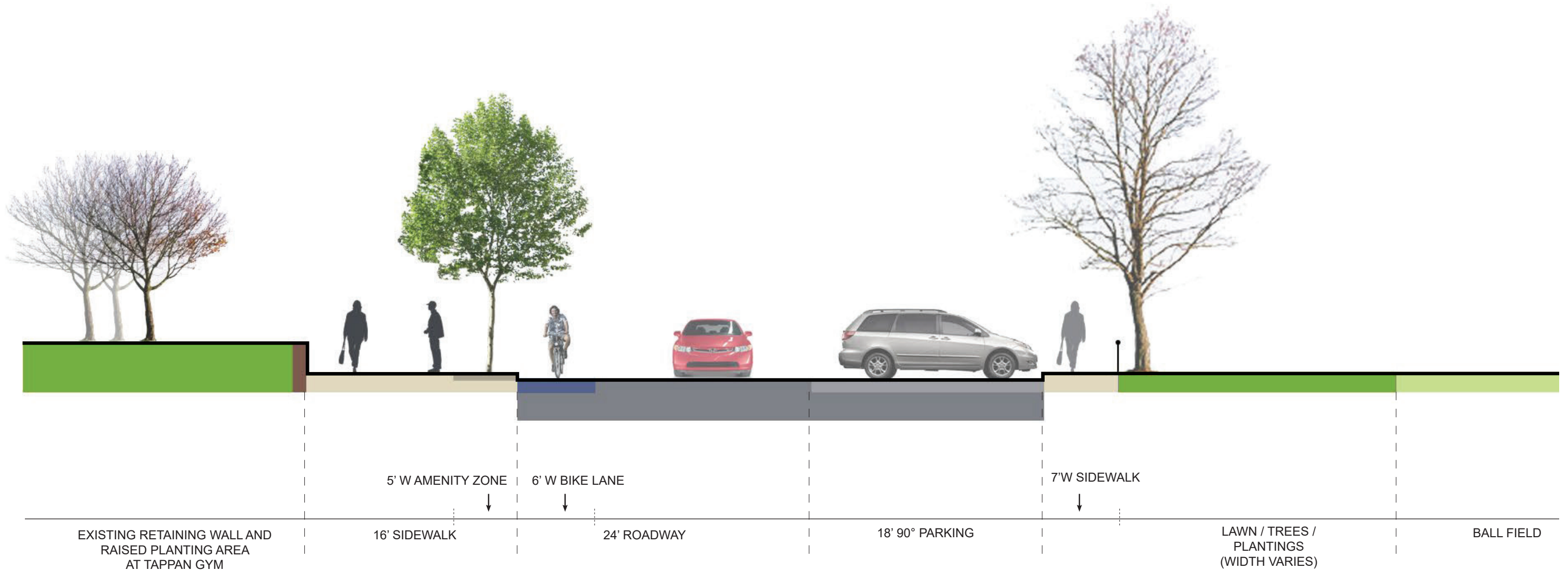
OPTION 4D | Campus Plan  
with Cypress Field Renovation Option 1

- (A) MAIN BUILDING ENTRY- EXISTING STAIR TO REMAIN. RECONFIGURED RAMP AND NEW RETAINING WALLS
- (B) NEW ACCESSIBLE STEM WING ENTRY
- (C) GREENOUGH STREET - EXISTING LAYOUT TO REMAIN. 20' WIDE WITH 7 PARALLEL PARKING SPACES
- (D) TABLE-TOP CROSSING ZONES WITH SPECIAL PAVING
- (E) CYPRESS FIELD PLAZA - OPEN PLAZA WITH SEATING AND TREES IN TREE PITS, THREE EXISTING TREES NEAR SOFTBALL FIELD TO REMAIN
- (F) TAPPAN GYM ENTRY PLAZA WITH NEW STAIR AND RAMP. RETAINING WALLS TO REMAIN.
- (G) TAPPAN ST ROADWAY AND SIDEWALK - RECONFIGURE TAPPAN STREET BETWEEN CYPRESS ST AND GREENOUGH STREET TO INCLUDE A 20' ONE-WAY TRAVEL LANE, A NEW 20' TREE LINED SIDEWALK ALONG TAPPAN GYM, THE UAB, CAMPUS AND MBTA PARKING LOT TO THE EAST.(40) 45-DEGREE PARKING SPACES AND A NEW 7' SIDEWALK TO THE NORTH ALONG CYPRESS FIELD.
- (H) UAB - REALIGN PLANTING EDGE AND SLOPED WALKWAY
- (I) CAMPUS PARKING LOT - 26 PARKING SPACES WITH WIDENED TRAFFIC ISLAND ALONG TAPPAN STREET TO ALLOW PEDESTRIAN MOVEMENT
- (J) MBTA TICKET BOOTH AND PARKING LOT - WIDEN TRAFFIC ISLAND ALONG THE ROADWAY TO ALLOW PEDESTRIAN MOVEMENT. RELOCATE TICKET BOOTH TO THE EAST.
- (K) NORTHERN ENTRY PLAZA OF NEW 111 CYPRESS STREET BUILDING - SPECIAL PAVING WITH SEATING ELEMENTS
- (L) OUTDOOR TERRACE AT THE INTERSECTION OF CYPRESS STREET AND TAPPAN STREET - SPECIAL PAVING, RETAINING WALLS AND SEAT WALLS. GRADE FLUSH WITH EXISTING BRIDGE
- (M) DAVIS AVENUE - EXISTING CURB AND SIDEWALK TO REMAIN. REPLACE 4'H CHAIN-LINK FENCE AT EXISTING FENCE LINE.
- (N) CYPRESS FIELD PLAYGROUND AND WATER PLAY AREA WITH BENCHES
- (O) CYPRESS FIELD OPEN LAWN WITH PICNIC TABLES AND CHAIRS
- (P) CYPRESS FIELD BASKETBALL COURT WITH 15'H PERIMETER FENCE
- (Q) CYPRESS FIELD SPORT FIELDS - INCLUDING TWO SOFTBALL FIELDS AND ONE SOCCER FIELD / LACROSSE FIELD WITH ARTIFICIAL TURF, BACKSTOP FENCE, DUGOUT BENCHES, AND PERIMETER SIDE FENCES.
- (R) EXISTING TREES AT CYPRESS FIELD ALONG TAPPAN STREET AND DAVIS AVENUE TO REMAIN WITH NATURAL LAWN UNDERNEATH.
- (S) 111 CYPRESS STREET BUILDING SOUTH OUTDOOR CAFE - SPECIAL PAVING WITH SEATING, SEAT WALLS, AND RETAINING WALLS.
- (T) 111 CYPRESS STREET BUILDING PARKING LOT- 6 SPACES
- (U) 111 CYPRESS STREET BUILDING DRIVEWAY
- (V) COURTYARD AT MAIN BUILDING- ELEVATED OPEN LAWN AND PLAZA AT THE CENTRAL AREA WITH SEAT WALLS AND MOVABLE TABLE AND CHAIRS. STAIRS, RAMPS, RETAINING WALL AND BENCHES AT THE PERIMETER.

NOTE: DARKER GREEN COLOR AT CYPRESS FIELD REPRESENTS SYNTHETIC TURF AND LIGHT GREEN REPRESENTS NATURAL PLANTING MATERIALS.



### 5. Preferred Solution | BHS Campus Expansion Campus Site Section at Tappan St.



NOTE: AMENITY ZONE COULD INCLUDE STREET TREES, BENCHES, BIKE RACKS, AND TRASH RECEPTACLES.

### TAPPAN STREET TYPICAL SECTION OPTION 2

**5. Preferred Solution | BHS Campus Expansion**  
Campus Site Plan

**OPTION 4D | Campus Plan**  
with Cypress Field Renovation Option 2 Re-Alignment of Greenough St.

- (A) MAIN BUILDING ENTRY- EXISTING UPPER STAIRCASE TO REMAIN. NEW SET OF LOWER STAIRCASE AND RAMPS ARE ADDED FOR ACCESSIBILITY.
- (B) NEW ACCESSIBLE STEM WING ENTRY
- (C) GREENOUGH STREET - RECONFIGURE STREET LAYOUT WITH 10 PARALLEL PARKING SPACES.
- (D) TABLE-TOP CROSSING ZONES WITH SPECIAL PAVING
- (E) NEW PLAZA IN FRONT OF MAIN BUILDING - ELEVATED PLAZA WITH SPECIAL PAVING AND VARIOUS SEATING ELEMENTS - BENCHES, SEAT WALLS AND STAIR.
- (F) TAPPAN GYM ENTRY PLAZA WITH NEW STAIR AND RAMP. RETAINING WALLS TO REMAIN.
- (G) TAPPAN ST ROADWAY AND SIDEWALK - RECONFIGURE TAPPAN STREET BETWEEN CYPRESS ST AND GREENOUGH STREET TO INCLUDE A ONE-WAY TRAVEL LANES, A NEW 17' TREE LINED SIDEWALK ALONG TAPPAN GYM, THE UAB, CAMPUS AND MBTA PARKING LOT TO THE EAST.(53) 90-DEGREE PARKING SPACES AND A NEW 7' SIDEWALK TO THE NORTH ALONG CYPRESS FIELD.
- (H) UAB - REALIGN PLANTING EDGE AND SLOPED WALKWAY
- (I) CAMPUS PARKING LOT - 26 PARKING SPACES WITH WIDENED TRAFFIC ISLAND ALONG TAPPAN STREET TO ALLOW PEDESTRIAN MOVEMENT
- (J) MBTA TICKET BOOTH AND PARKING LOT - WIDEN TRAFFIC ISLAND ALONG THE ROADWAY TO ALLOW PEDESTRIAN MOVEMENT. RELOCATE TICKET BOOTH TO THE EAST.
- (K) NORTHERN ENTRY PLAZA OF NEW 111 CYPRESS STREET BUILDING - SPECIAL PAVING WITH SEATING ELEMENTS
- (L) OUTDOOR TERRACE AT THE INTERSECTION OF CYPRESS STREET AND TAPPAN STREET - SPECIAL PAVING, RETAINING WALLS AND SEAT WALLS. GRADE FLUSH WITH EXISTING BRIDGE
- (M) DAVIS AVENUE - EXISTING CURB AND SIDEWALK TO REMAIN. REPLACE 4'H CHAIN-LINK FENCE AT EXISTING FENCE LINE.
- (N) CYPRESS FIELD PLAYGROUND AND WATER PLAY AREA WITH BENCHES
- (O) CYPRESS FIELD OPEN LAWN WITH PICNIC TABLES AND CHAIRS
- (P) CYPRESS FIELD BASKETBALL COURT WITH 15'H PERIMETER FENCE
- (Q) CYPRESS FIELD SPORT FIELDS - INCLUDING TWO SOFTBALL FIELDS AND ONE SOCCER FIELD / LACROSSE FIELD WITH ARTIFICIAL TURF. BACKSTOP FENCE, DUGOUT BENCHES, AND PERIMETER SIDE FENCES
- (R) EXISTING TREES AT CYPRESS FIELD ALONG TAPPAN STREET AND DAVIS AVENUE TO REMAIN WITH NATURAL LAWN UNDERNEATH.
- (S) 111 CYPRESS STREET BUILDING SOUTH OUTDOOR CAFE AREA - SPECIAL PAVING WITH SEATING, SEAT WALLS, AND RETAINING WALLS.
- (T) 111 CYPRESS STREET BUILDING PARKING LOT- 6 SPACES
- (U) 111 CYPRESS STREET BUILDING DRIVEWAY
- (V) COURTYARD AT MAIN BUILDING- ELEVATED OPEN LAWN AND PLAZA AT THE CENTRAL AREA WITH SEAT WALLS AND MOVABLE TABLE AND CHAIRS. STAIRS, RAMPS, RETAINING WALL AND BENCHES AT THE PERIMETER.

NOTE: DARKER GREEN COLOR AT CYPRESS FIELD REPRESENTS SYNTHETIC TURF AND LIGHT GREEN REPRESENTS NATURAL PLANTING MATERIALS.



**5. Preferred Solution |** BHS Campus Expansion

BHS Improvements STEM-Wing Addition and 3rd Floor Science Renovation as Classrooms & Collaborative Learning Spaces

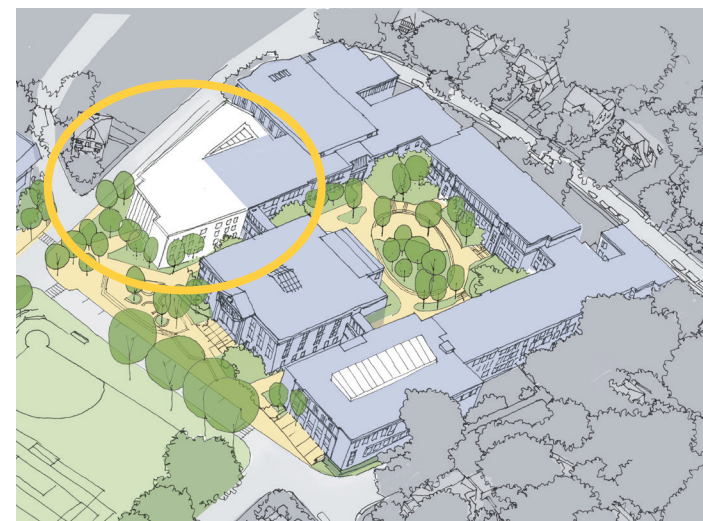
**BHS New STEM-Wing at the Roberts Wing**

Option 4D addresses the priority for a transformation of the Science Department facilities, currently undersized and inadequately equipped, with new construction of a STEM Wing addition to a portion of the existing Roberts Wing of the Greenough Building.

Six (6) Science classrooms/ labs are stacked on each of three floor levels, supported by two Maker Spaces, teacher offices, and two collaborative Learning Commons. The proximity of the six Science classrooms/ labs encourages collaboration between the Science classrooms. The location of clusters of Science classrooms/ labs on three levels distributes Science within the largerschool to encourage more interdisciplinary work.

Portions of the existing Robers Wing are demolished to provide a new open and accessible entrance at the corner of Greenough and Tappan Streets, further promoting an open and connected campus.

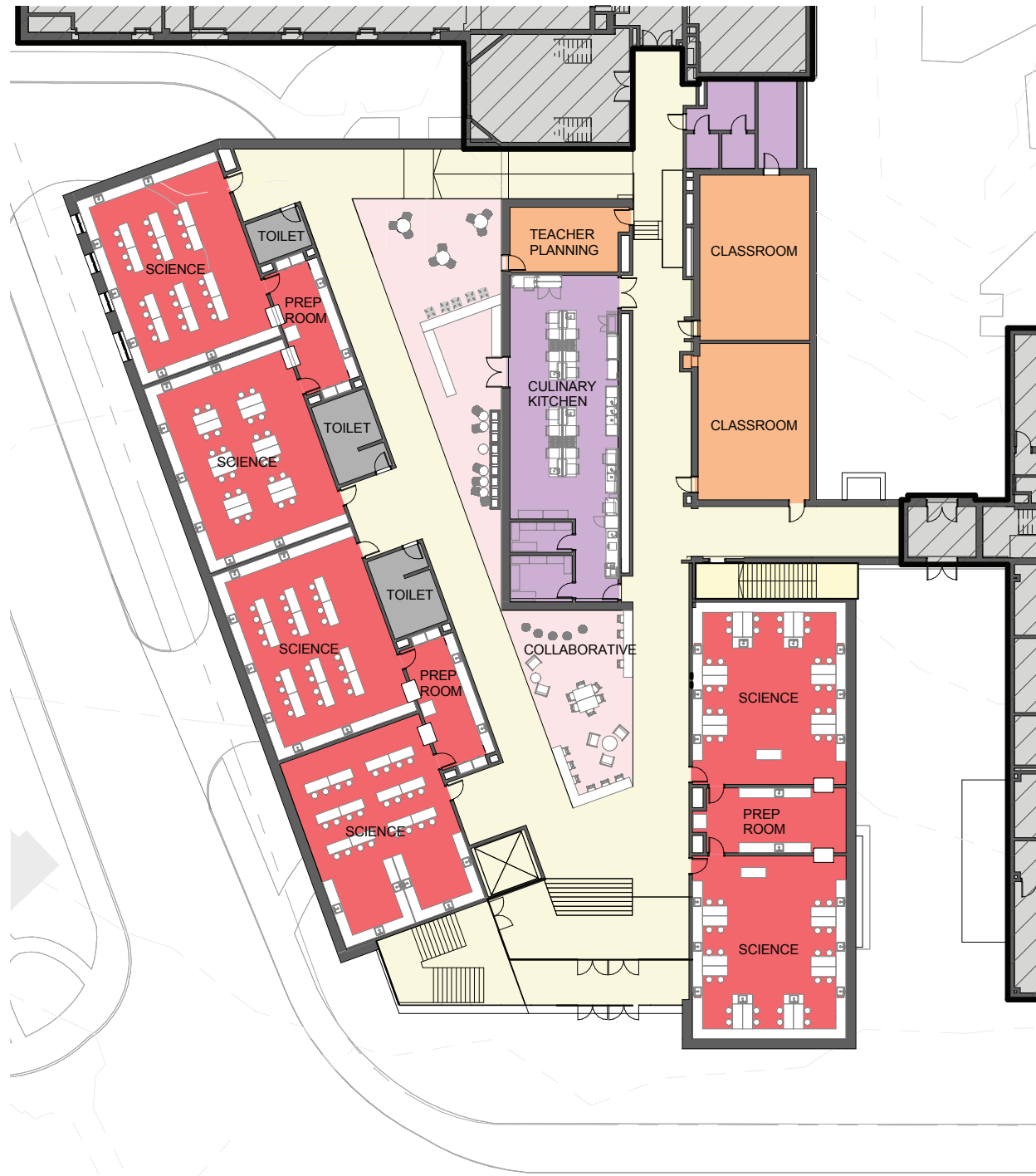
A new Culinary Arts Kitchen/ Café on the first floor enhances this program by providing the opportunity to serve the public. The Café and adjacent collaborative space encourage informal gatherings.





**5. Preferred Solution |** BHS Campus Expansion

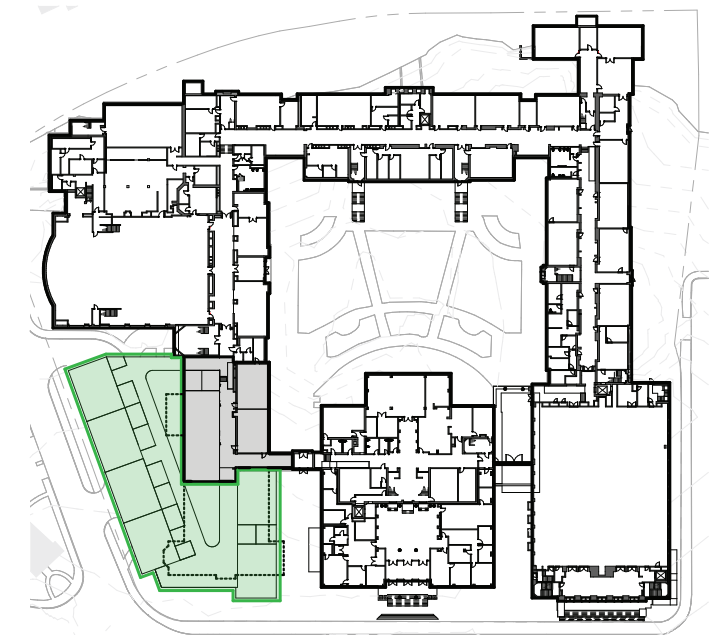
BHS Improvements STEM-Wing Addition and 3rd Floor Science Renovation as Classrooms & Collaborative Learning Spaces



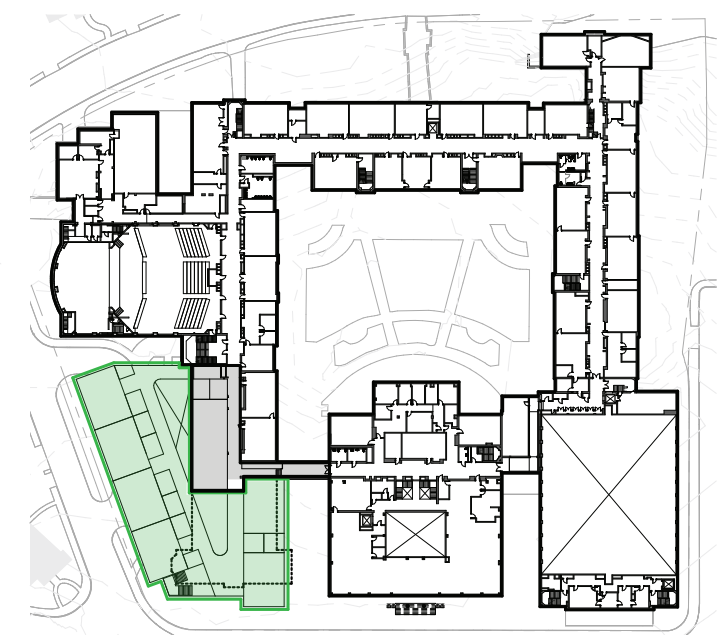
First Floor - Program Plan



Second Floor - Program Plan



First Floor - Key Plan



Second Floor - Key Plan



- Outline Existing to be Demolished
- Existing to Remain
- Intensive Renovation
- New Construction

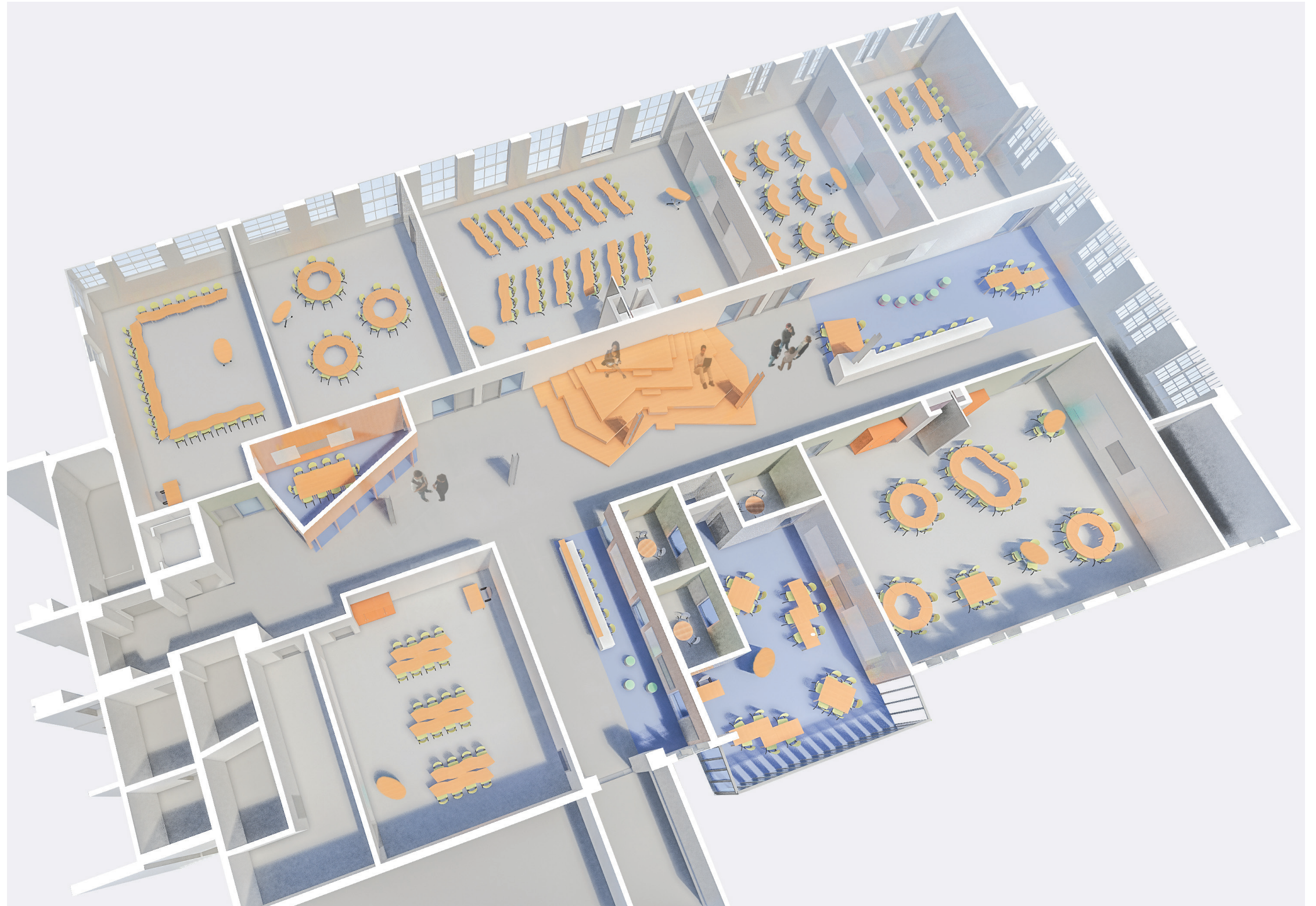
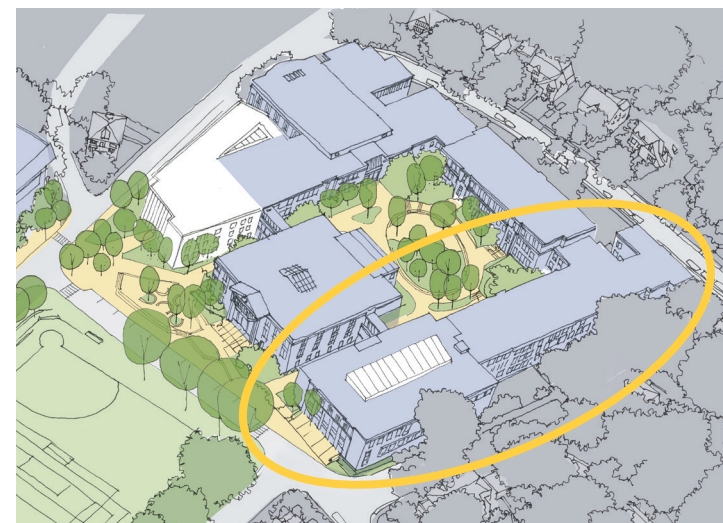
**5. Preferred Solution |** BHS Campus Expansion

BHS Improvements STEM-Wing Addition and 3rd Floor Science Renovation as Classrooms & Collaborative Learning Spaces

**BHS 3rd Floor Science Renovation**

With all Science classrooms/labs housed in new facilities either at the Cypress Building or the STEM Wing, the existing Science classrooms/labs are renovated and reconfigured into classrooms and collaborative space.

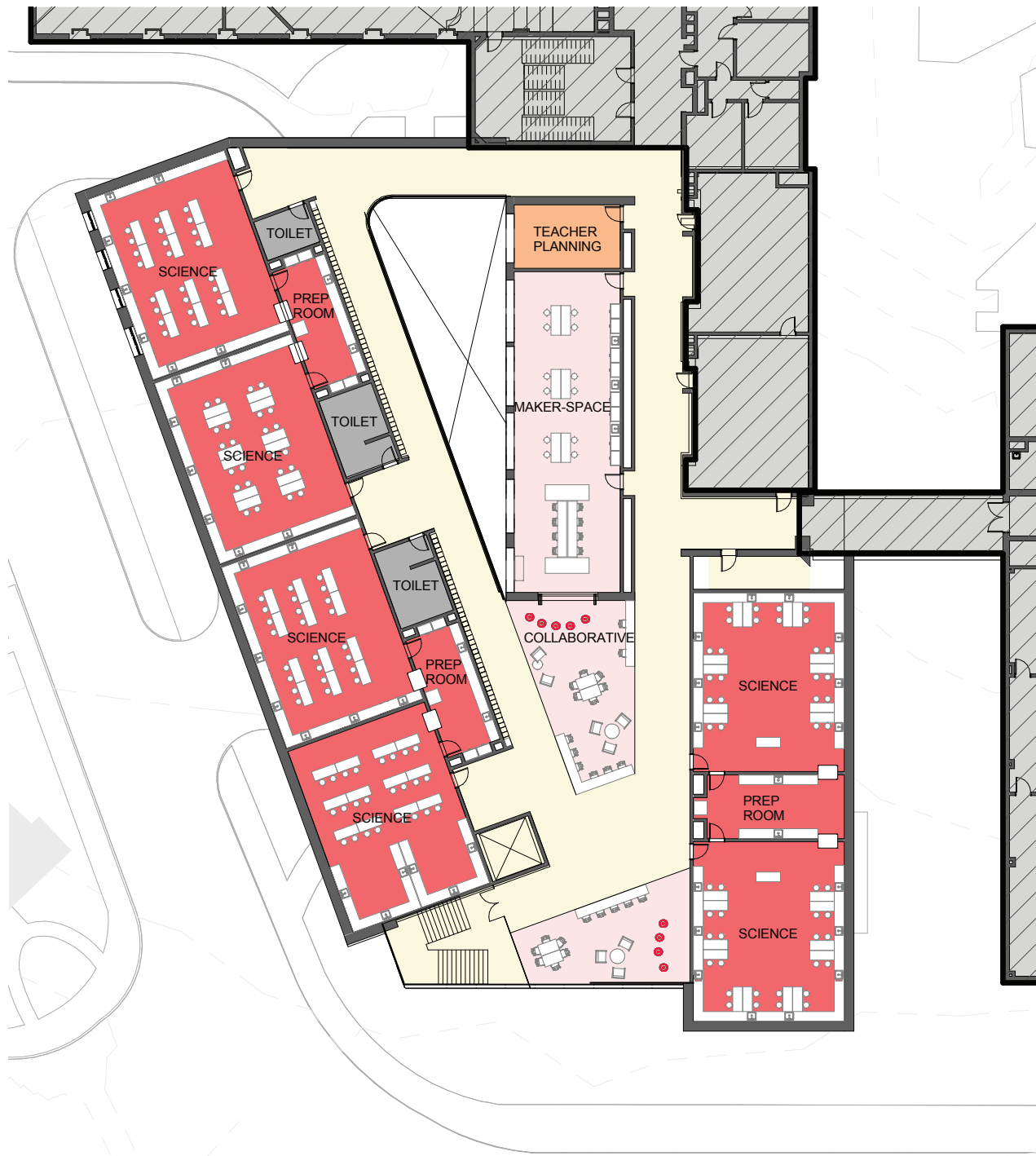
The third floor, above the Schluntz Gym wing, is renovated into a variety of collaborative learning spaces, including a Small Group Room, a Learning Commons, and renovated classrooms, including several flexible classrooms. In these classrooms, dividing walls open to allow two or three classes to meet together.



**Massing Concept Perspective Views**

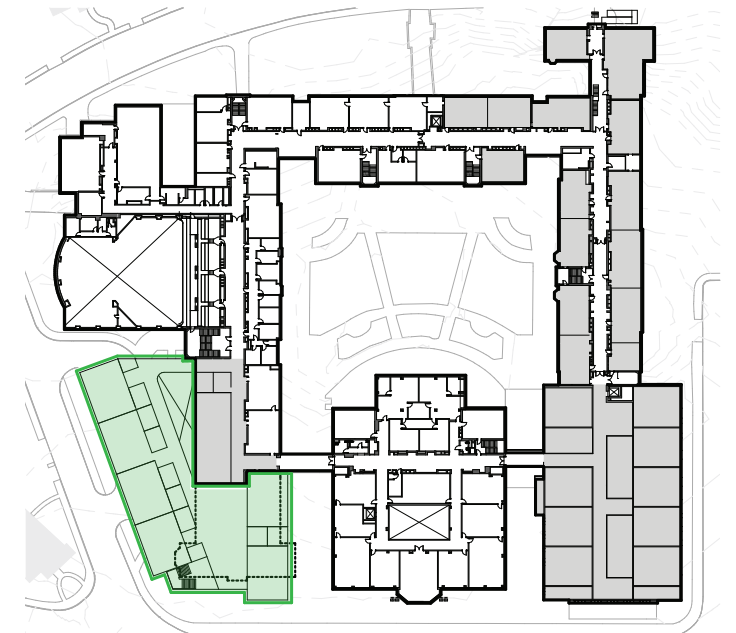
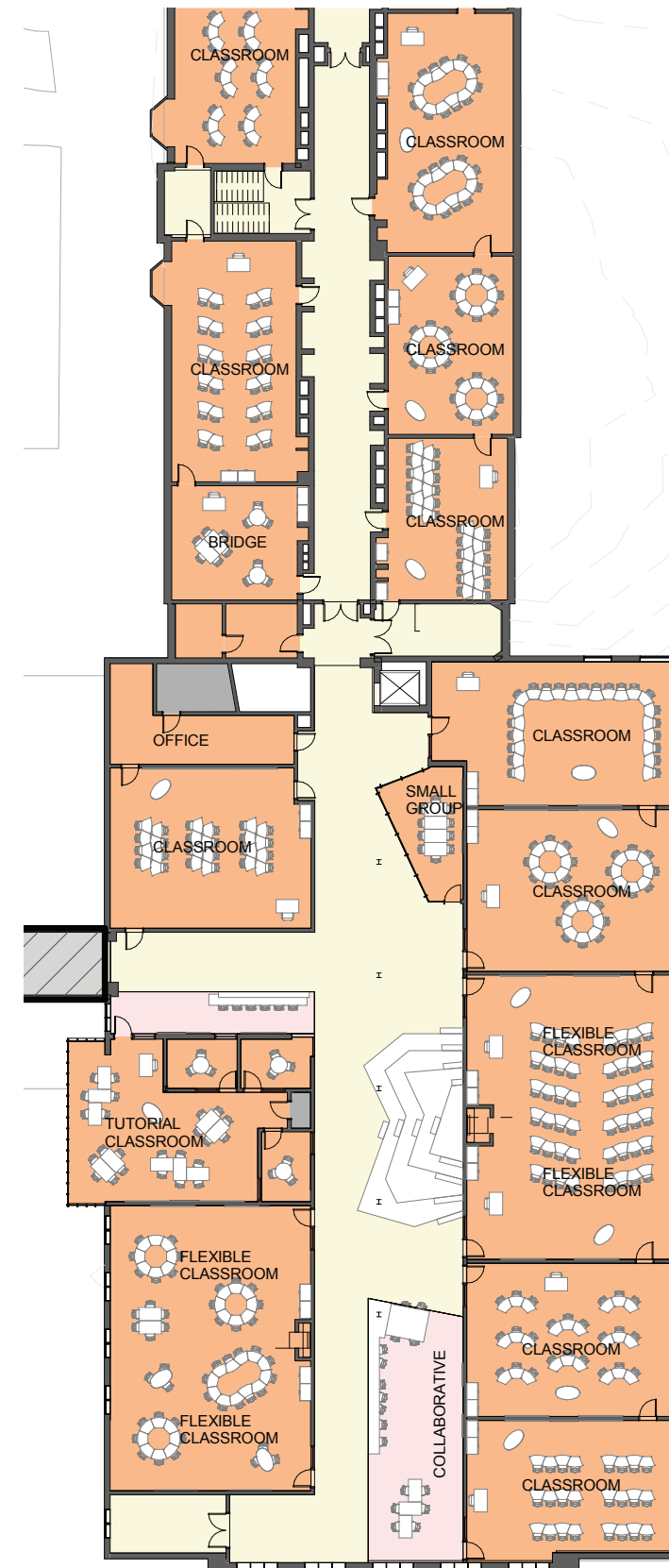
**5. Preferred Solution |** BHS Campus Expansion

BHS Improvements STEM-Wing Addition and 3rd Floor Science Renovation as Classrooms & Collaborative Learning Spaces







**Third Floor - Program Plan**

**Third Floor - Program Plan  
Existing Science Renovated as Collaborative Learning Classrooms**



**Third Floor - Key Plan**

-  Outline Existing to be Demolished
-  Existing to Remain
-  Intensive Renovation
-  New Construction

## 5. Preferred Solution | BHS Campus Expansion New Cypress Building - 9th Grade Academic Building

### 9th Grade Academic Building

The concept of a free-standing 9th Grade academic building supports a goal of the BHS Ed Plan to create a “Big School Small Feel”. The building will serve as a transition between the neighborhood elementary schools and the single Brookline High School.

The building contains the academic, administrative, and community spaces, including Dining/ Kitchen, Art, Music, and the Library, necessary to support the 9th Grade enrollment. 9th Grade students will travel to the Tappan Gym for athletics, to the Unified Arts Building for Visual Arts and Consumer Education classes, and to the Greenough building for performance and advanced classes. Some students in upper grades may participate in mentoring activities or multi-grade level classes in the Cypress building.

The site is encumbered not only by the MBTA Green Line but by several existing easements. At the corner of Tappan Street and Cypress Street, Tappan Road rises steeply. Along Cypress Street, there is an approximately six-foot change in grade from the MBTA overpass and the corner of Brington Road and Cypress Street.

Site development on the Brington Street level includes vehicular access from Brington Road for building service and for several parking spaces. In response to comments from the neighborhood, a pedestrian connection to the MBTA Brookline Hills stop passes through the site.

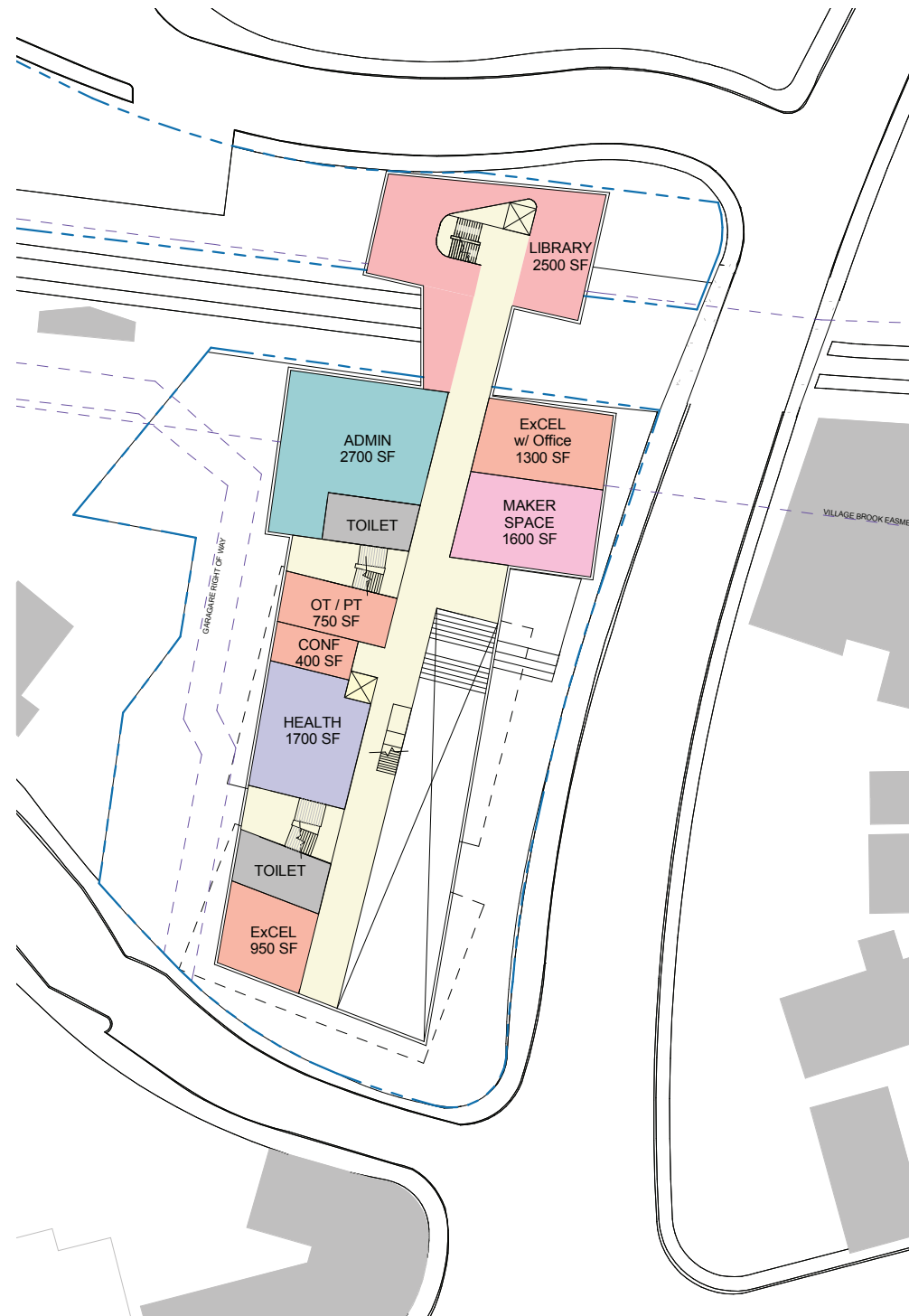


Massing Concept Perspective Views

## 5. Preferred Solution | BHS Campus Expansion New Cypress Building - 9th Grade Academic Building



Ground Level - First Floor - Program Plan



Second Floor - Program Plan

There are two entrances to the new school, responding to the site conditions and encouraging neighborhood engagement. The entrance from Brington Road leads into the Dining Commons, which will also serve as a large gathering space. An outdoor terrace directly accessed from the Dining Commons enlivens the Cypress Street edge of the school site.

At Tappan Street, the entrance to the school is directed to the pedestrian campus path. To negotiate the grade change, and to clear the MBTA Green Line tracks, one enters the building and then travels by stair or elevator through the Learning Commons to bridge across the tracks. The volume of the Learning Commons and Library above this entrance announces the campus at the corner of Tappan Street and Cypress Street.

### 9th Grade Academic Building

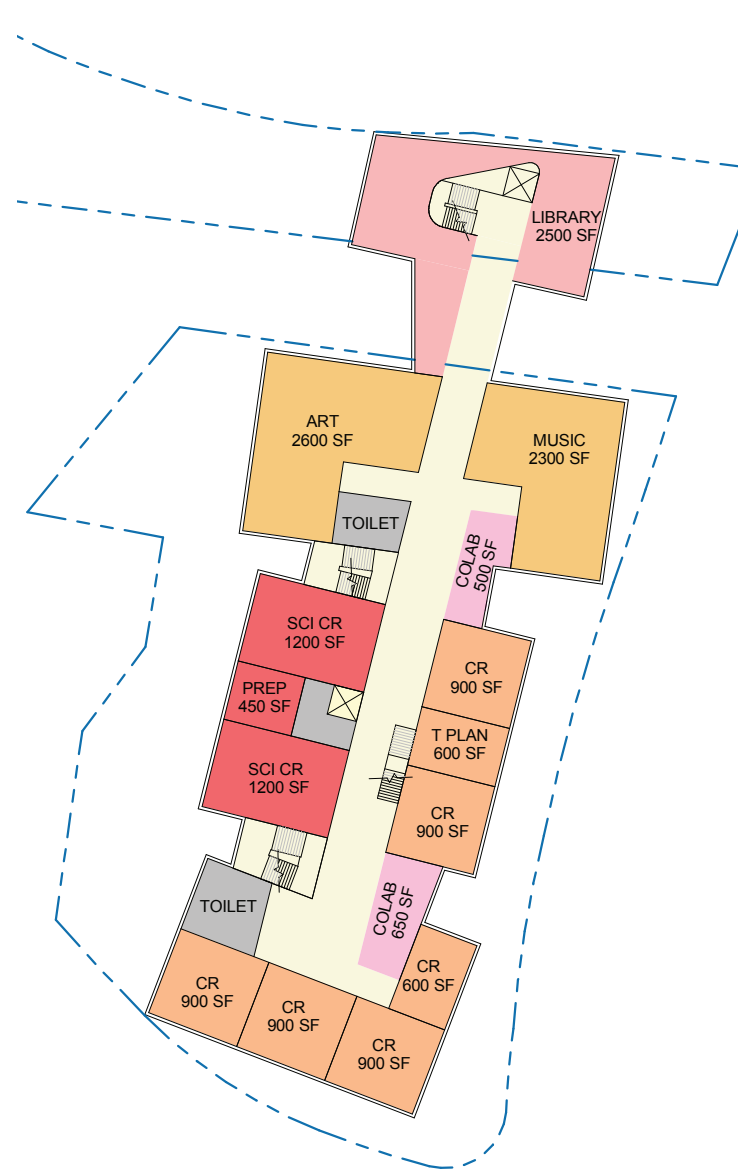
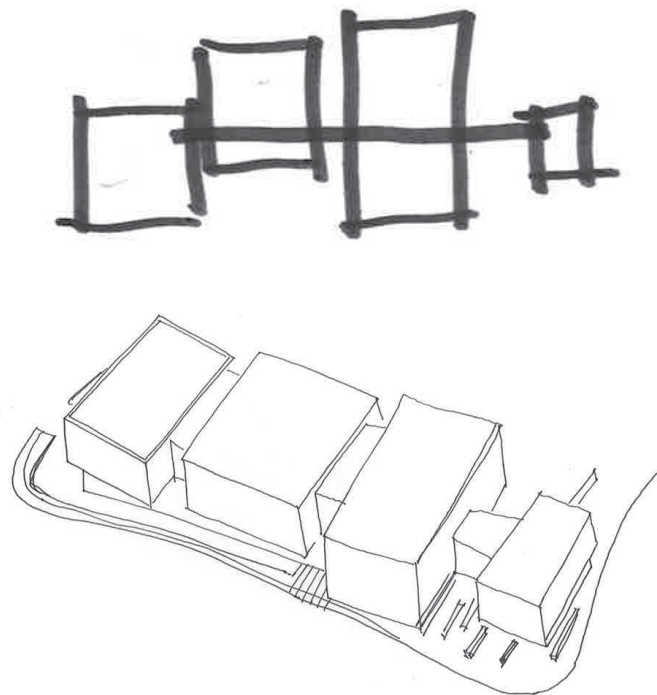
The upper three academic floors are designed to support the goal of interdisciplinary learning and collaboration. Two Science classroom/ labs with Preparation rooms are stacked in a central location on each academic floor near the classrooms for other disciplines. On each floor level, classrooms are grouped around collaborative spaces.

Dedicated spaces for Art, Music, Health Education, Maker Space, and student services support the 9th Grade curriculum.

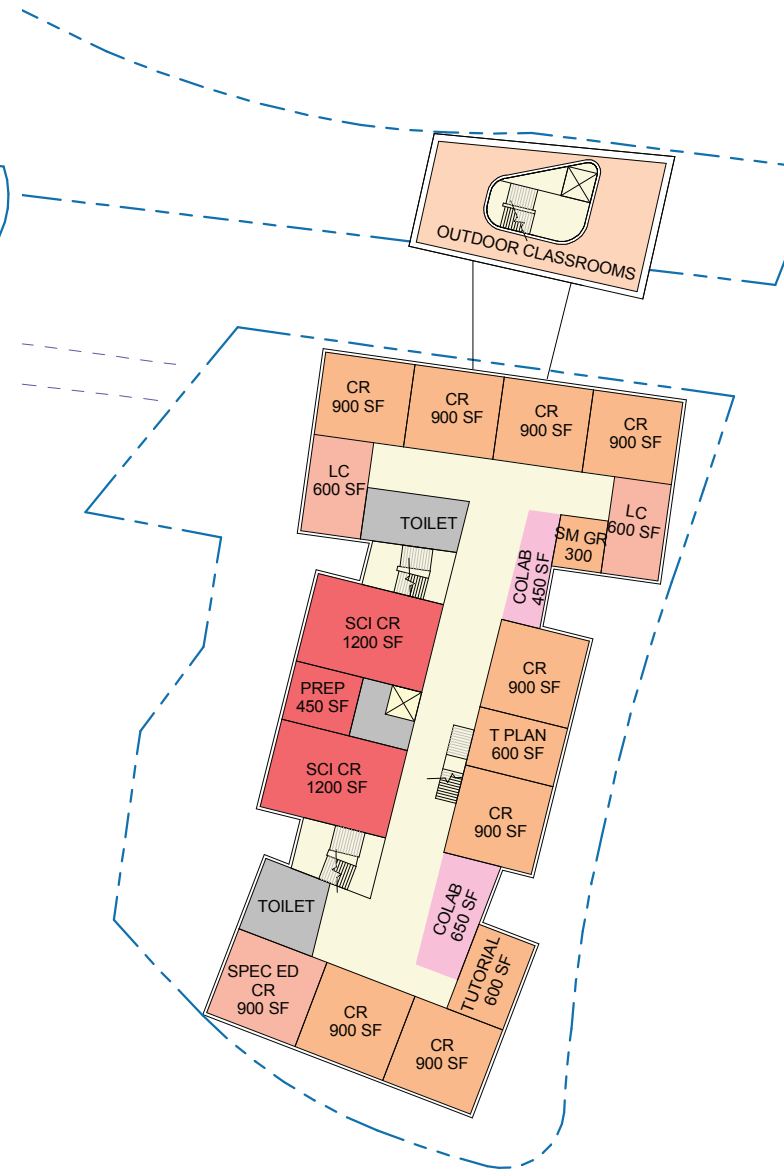


### 5. Preferred Solution | BHS Expansion and New Cypress Building - 9th Grade Academic Building

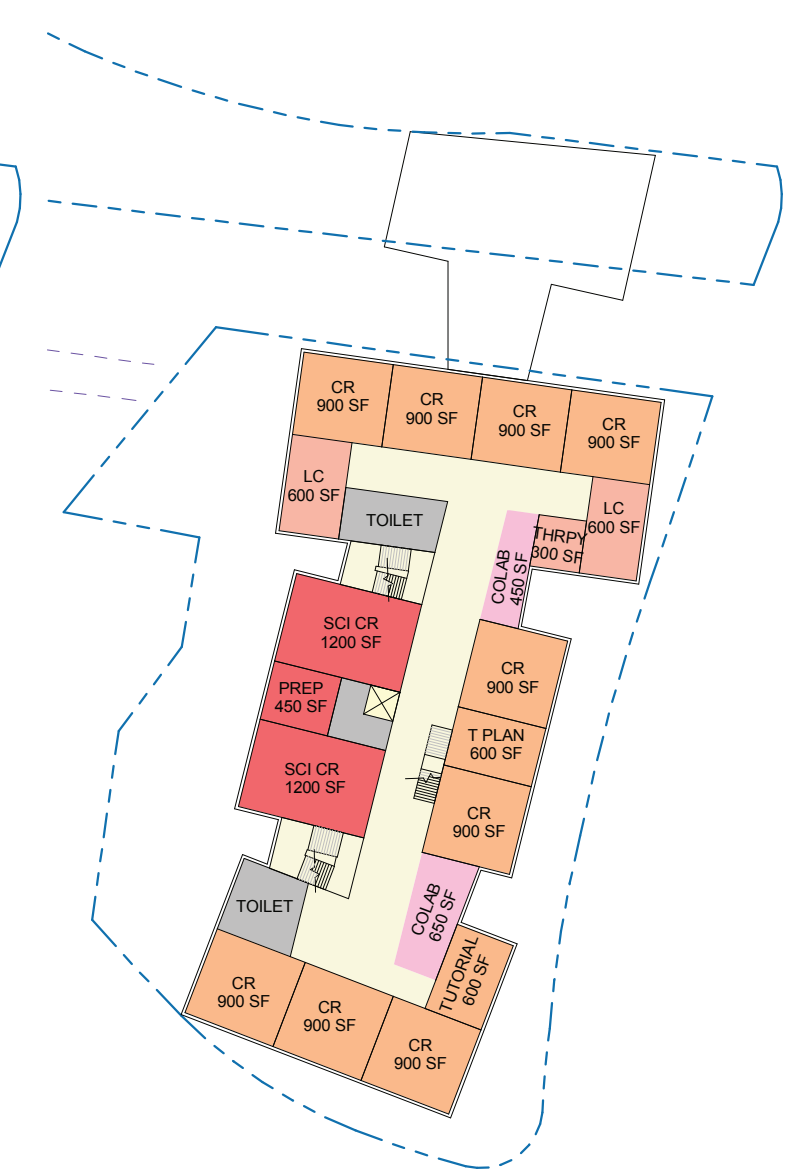
#### Massing Concept Sketches



Third Floor - Program Plan



Fourth Floor - Program Plan



Fifth Floor - Program Plan



## 5. Preferred Solution | BHS Campus Expansion

### Option 4D - Building Code and Accessibility Compliance Narrative

The Preferred Solution, Option 4D, is comprised of two projects – the BHS Greenough building with New STEM wing and the 9th Grade academic building on Cypress Street. Building Code and Accessibility Regulations compliance will require different approaches for each project.

#### **BHS Greenough Building with New Science STEM Wing**

##### **New STEM Wing**

The New STEM Wing proposes a new Culinary Arts Kitchen/Café, Science classrooms/ labs, Maker Spaces, teacher planning areas, and collaborative space within a new addition to the Roberts Wing of the Greenough academic building.

The total footprint of the existing Greenough building exceeds the maximum area limits for its varied construction types. The increase of the building footprint for the STEM Wing will require the separation of the addition from the existing building by a fire wall. Since the proposed STEM wing is a three-story addition that connects to the existing building at two locations – at the stair near the Cafeteria and Auditorium and at the connecting corridors to the central Administration, Library, and Academic building – the addition will be separated at these two locations, through all floor levels.

As a separate building, the New STEM Wing will then be required to comply fully with all Building Code and Accessibility regulations, including the 780 CMR 9th Edition of the Massachusetts State Building Code and 521 CMR Rules and Regulations of the Massachusetts Architectural Access Board (MAAB).

##### **BHS Greenough Building**

With the new STEM Wing considered a separate building, the remaining BHS Greenough Building will also be treated a separate building for code analysis.

As described above, the new STEM Wing will contain the New Science classrooms/ labs. As a result, the existing Science classrooms/ labs will be available for renovation into classrooms and collaborative spaces. Other modifications to the existing building may include window replacement, replacement of portions of the roof impacted by the construction of the addition, and minor repairs or system upgrades.

In Option 4D the extent of modifications to the existing building will be limited by thresholds for full code compliance.

- Seismic Requirements /Triggers are discussed in the Evaluation of Existing Conditions section of this report. Refer also to the Existing Conditions Narrative – Structure in Appendix A for a more detailed description of the level of seismic retrofit/upgrades triggered by incrementally larger work areas.
- As discussed in the Building Code and Accessibility Narrative of the Evaluation of Existing Conditions, full compliance with the MAAB regulations is triggered when the cost of proposed renovations exceeds 30% of a building's assessed value. Note that the assessed value of the remaining Greenough Building will be reduced proportionally to the loss of area at the Roberts Wing for the STEM Wing.

#### **9th Grade Academic Building on Cypress Street**

The free-standing academic building on Cypress Street will be new construction. As such, full compliance with all Building Codes and Accessibility regulations will be required.

Accommodating the architectural program for the 9th Grade academic building within the Cypress Street site will require a multi-story building. The building height will affect the type of construction permitted, and potentially, additional requirements for high-rise construction.

## 5. Preferred Solution | BHS Campus Expansion

### Building Systems Narrative / Summary of Cost Estimate

#### Building Systems Narrative

With the selection of Option 4D as the Preferred Solution, the HMFH consultant team developed narratives of the proposed site development, structural requirements, and building systems for the approved option. These narratives formed the basis of the cost estimate of Option 4D.

McPhail Associates, Inc. outlined the geotechnical scope for a subsurface exploration program for Option 4D, including exploration of Cypress Field as a potential site for a storm water management system related to the project.

Refer to Volume 2 of 3  
Appendix D - Preferred Solution Building Systems Narratives

#### Summary of Cost Estimate

The Option 4D Preferred Solution order of magnitude construction costs, projected project costs and miscellaneous additional items, a total of \$136,612,807, was approved by the Town of Brookline stakeholders as the Preferred Solution, for the Schematic Design phase.

Refer to the previous section 4.  
pages 4.236 through 4.240

Refer to Volume 3 of 3  
Appendix E - Cost Estimates



## 5. Preferred Solution | BHS Campus Expansion Preliminary Phasing Approach and Project Schedule

Important considerations in the selection of the Preferred Solution included the extent of student displacement and relocation, the impact of construction on school operations, the length of the construction period, and the potential for neighborhood disruption.

All Option 4 variations were considered more favorably for these factors than Options 1, 2, or 3. The free-standing 9th Grade Academic Building on the Cypress Street site offers flexibility in the phasing approach. Options 1, 2, or 3 involve the demolition and replacement with new construction of increasingly larger areas of the existing building. All three options require student displacement and relocation with significant impact on school operations. With Option 4, major construction occurs on an adjacent site to the existing campus, minimizing disruption to the school. On completion, an entire grade level of the high school will occupy the new building, freeing up space in the remaining buildings of the BHS campus to facilitate the phasing of renovations.

Pending future collaboration with the Town of Brookline, BHS administration, and the Construction Manager-at-Risk, two possible phasing approaches have been discussed. Critical to the choice between these two approaches is the feasibility of relocating programs and classes housed in the Roberts wing of the Greenwood Street academic building.

### Phasing Approach 1 for the Preferred Solution -Option 4D

Students and programs in the Roberts Wing are relocated off-site or to temporary classrooms on the campus. The Cypress Academic building and new STEM Wing are constructed concurrently.

- Hazardous materials removal and partial demolition of Roberts Wing: 3 months
- Construction of the 9th Grade academic building on Cypress Street: 24 – 30 months
- Construction of the new STEM Wing (concurrently with new academic building on Cypress Street): 18 months
- Renovation of existing Science classrooms/ labs into classrooms and collaborative space: 6 months, (after completion of major construction.)

Total Major Construction Period: 30 months

### Phasing Approach 2 for the Preferred Solution -Option 4D

No students or programs are displaced. The existing BHS campus remains fully operational for all students. Projects are constructed consecutively.

- Construction of the 9th Grade academic building on Cypress Street: 24 – 30 months.
- Cypress Street academic building completed and occupied.
- Hazardous materials removal and partial demolition of Roberts Wing: 2 months (Concurrently completed during final summer of 9th Grade academic building construction.)
- Construction of new STEM Wing: 18 months  
18 new Science classrooms completed while Science classes remain in existing classroom/ labs.
- Renovation of existing Science classrooms/ labs into classrooms and collaborative space: 6 months, (after completion of major construction.)

Total Major Construction Period: 42 – 48 months

## 5. Preferred Solution | BHS Campus Expansion

### Option 4D - Preliminary Phasing Approach and Project Schedule

#### Option 4D and the MBTA

Option 4D proposes that the 9th Grade Academic Building will extend across the MBTA Green Line tracks to face on Tappan Street. With a presence on Tappan Street, the new academic building will extend the Brookline High School campus to Cypress Street. Site development along Tappan Street will improve the pedestrian connection between the distinct buildings to reinforce the concept of a unified campus.

It is possible that negotiations for air rights above the MBTA Green Line will be lengthy and could delay the completion of the new academic building. A strategy to maintain the schedule is that the design of the building accommodates two phases. The first phase is the construction of a significant portion of the building completely within the 111 Cypress Street site without encroachment on the MBTA land. This building would include the essential classrooms and programs to allow the 9th Grade to operate. With a successful negotiation with the MBTA, a second phase of the project would be the construction of the entry on Tappan Street and additional program areas, for example, a Library or other program area.

#### Option 4D - Preliminary Project Schedule

