

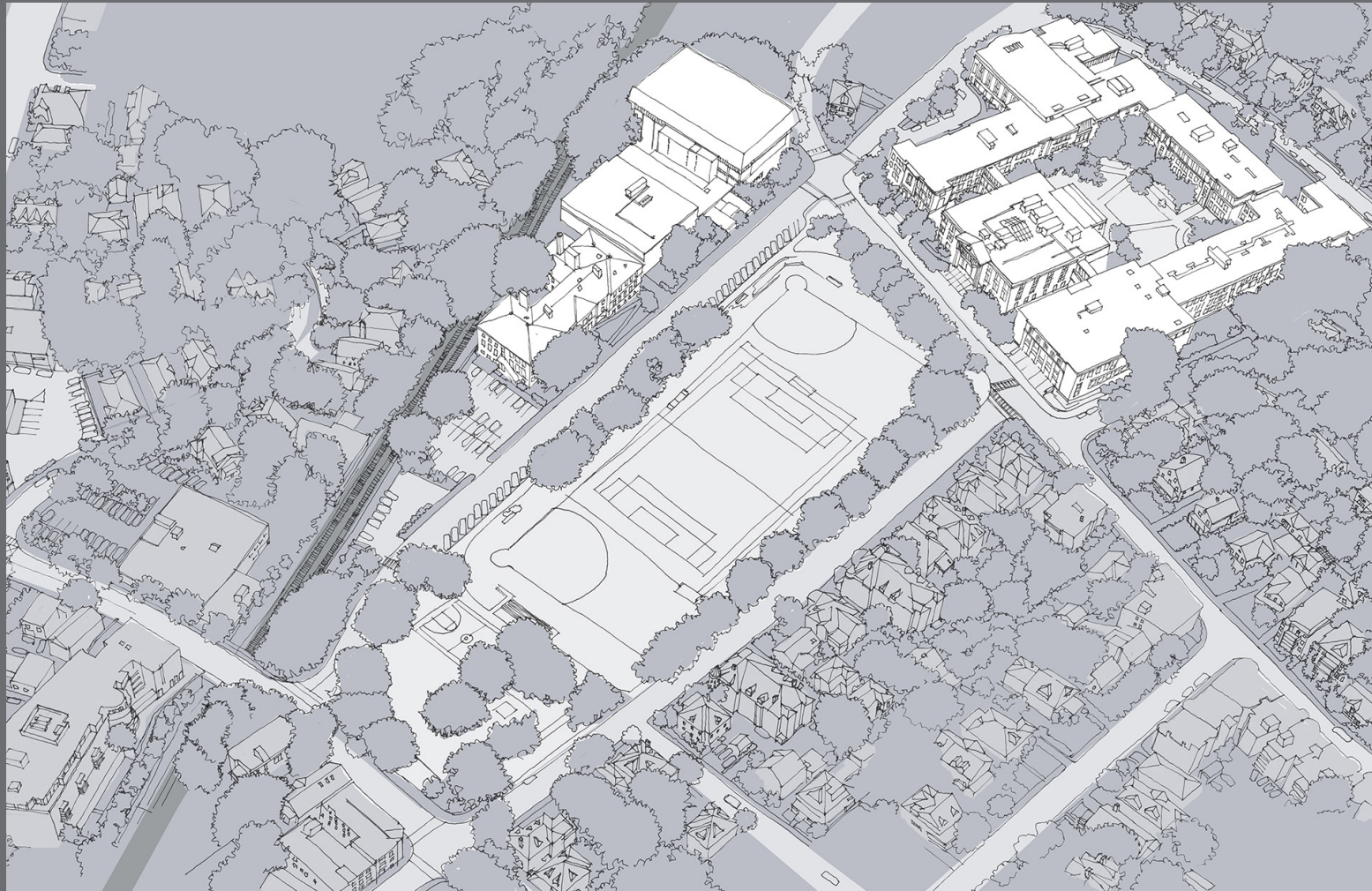


# Brookline High School Building Committee

## Brookline High School Campus Expansion Update

Feasibility Study

APRIL 26, 2017



HMFH ARCHITECTS

130 Bishop Allen Drive, Cambridge, MA 02139 617 492 2200 [hmfh.com](http://hmfh.com)



# Existing

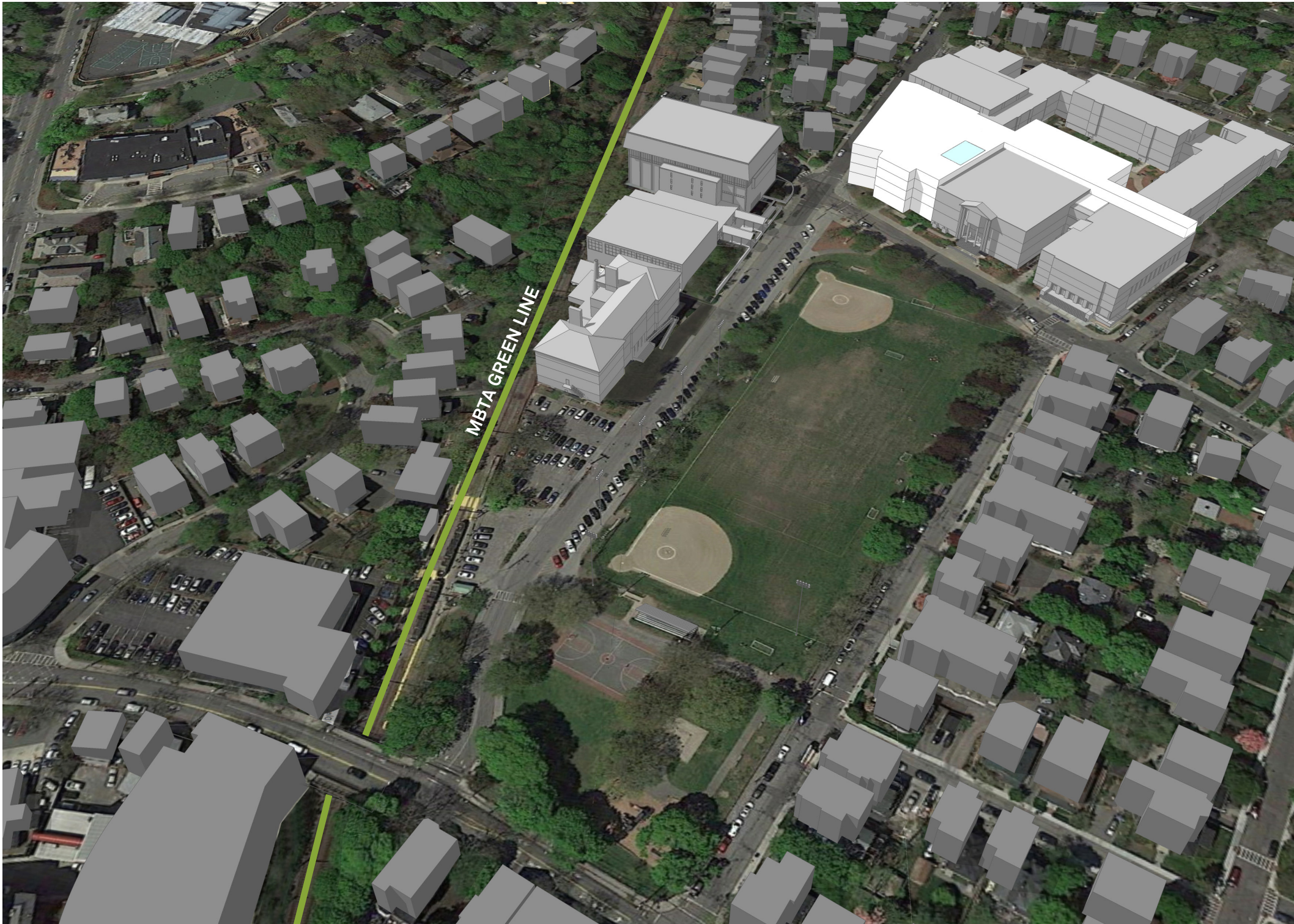


Massing



# OPTION 1

## Enrollment Accommodation



BHS Existing to Remain  
294,310 sf

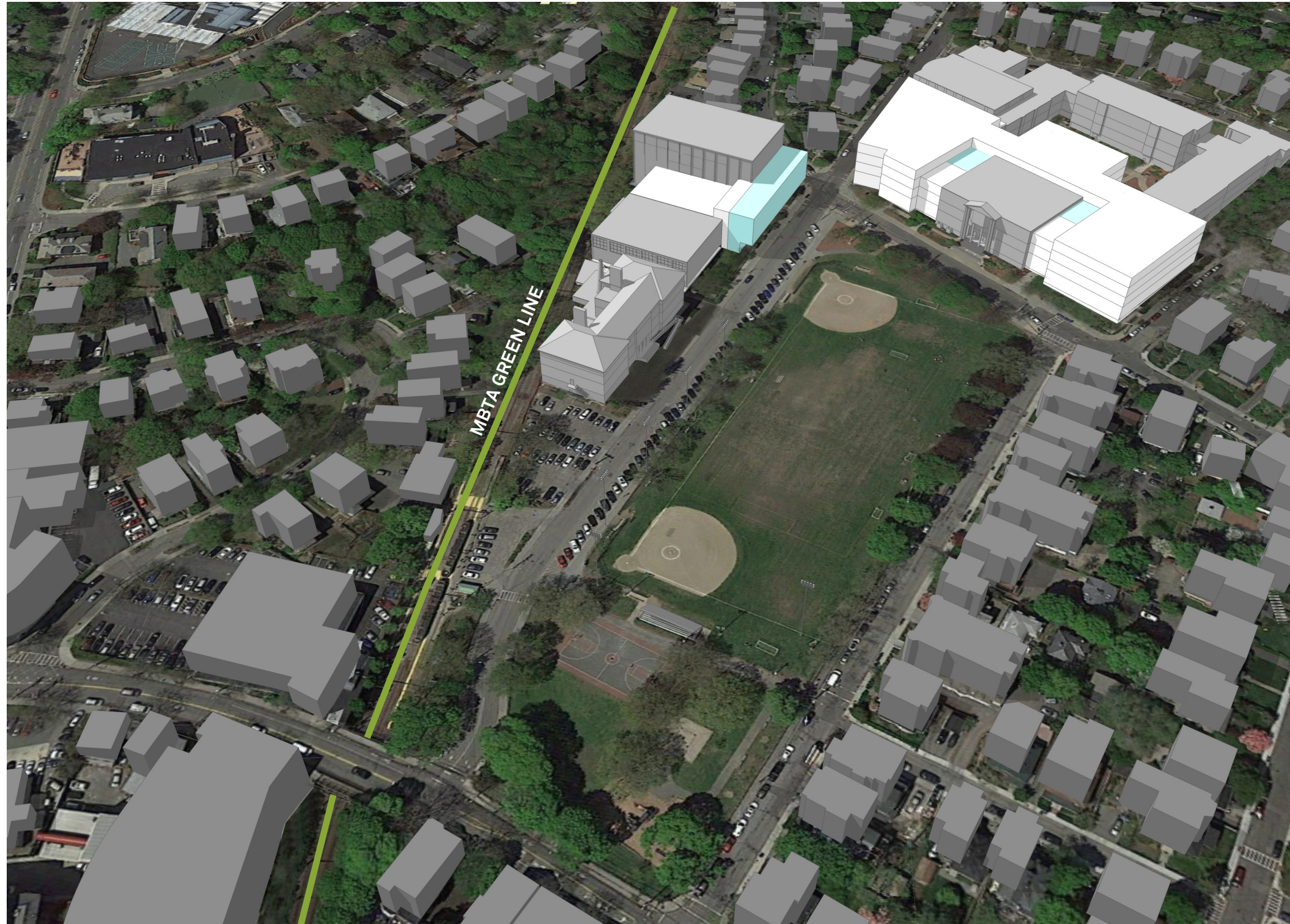
New Construction at BHS  
165,000 sf

Massing



# OPTION 2

## MA State Standard with Competition Gym at Tappan Gym



BHS Existing to Remain  
242,280 sf

New Construction at BHS  
228,690 sf

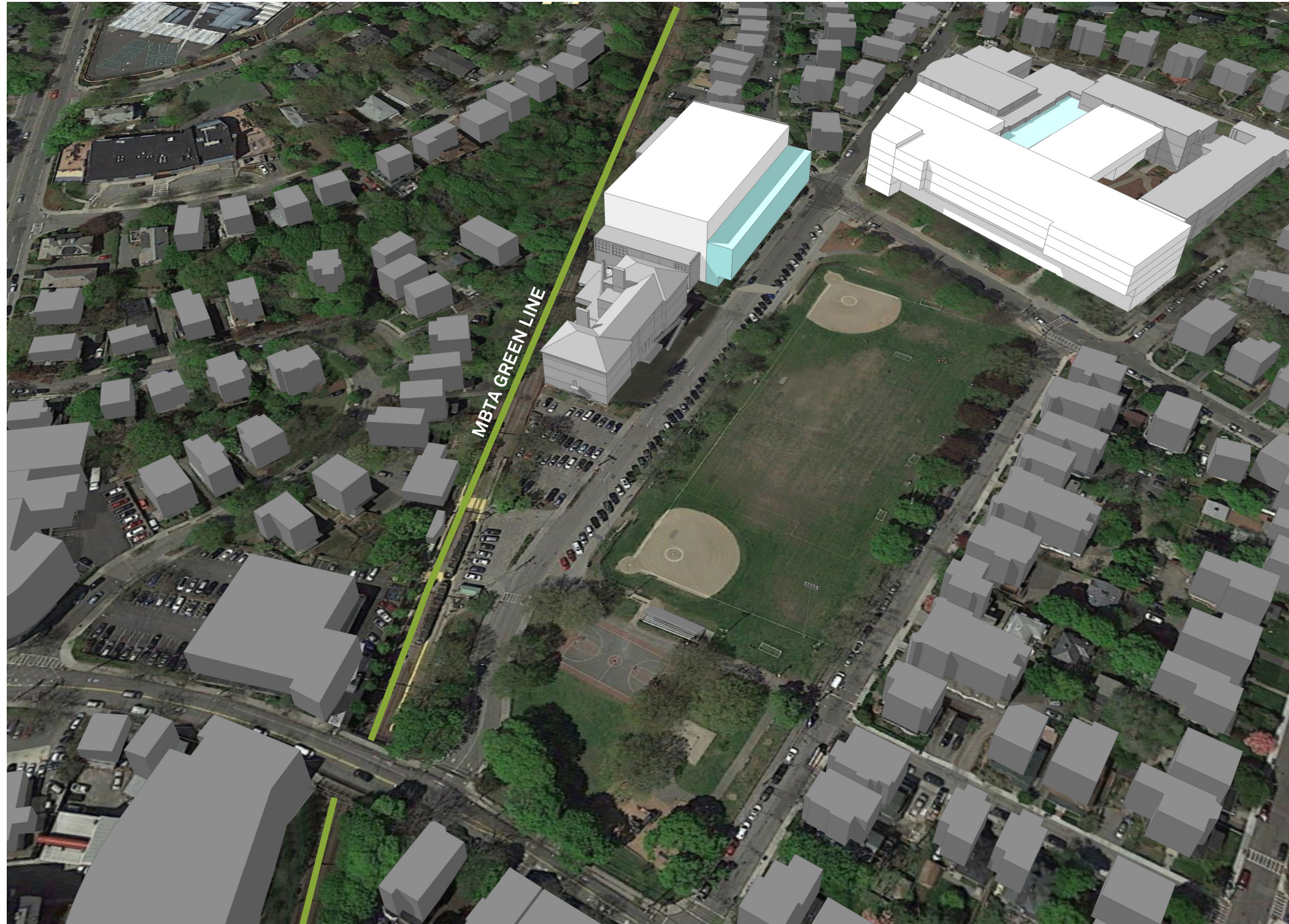
plus  
2. Tappan Gym Moderate  
Renovation with  
Competition Gym and  
Practice Gym Addition

Massing



# OPTION 3

## BHS Educational Plan and with Field House Addition to Tappan Gym



BHS Existing to Remain  
181,050 sf

New Construction at BHS  
298,130 sf

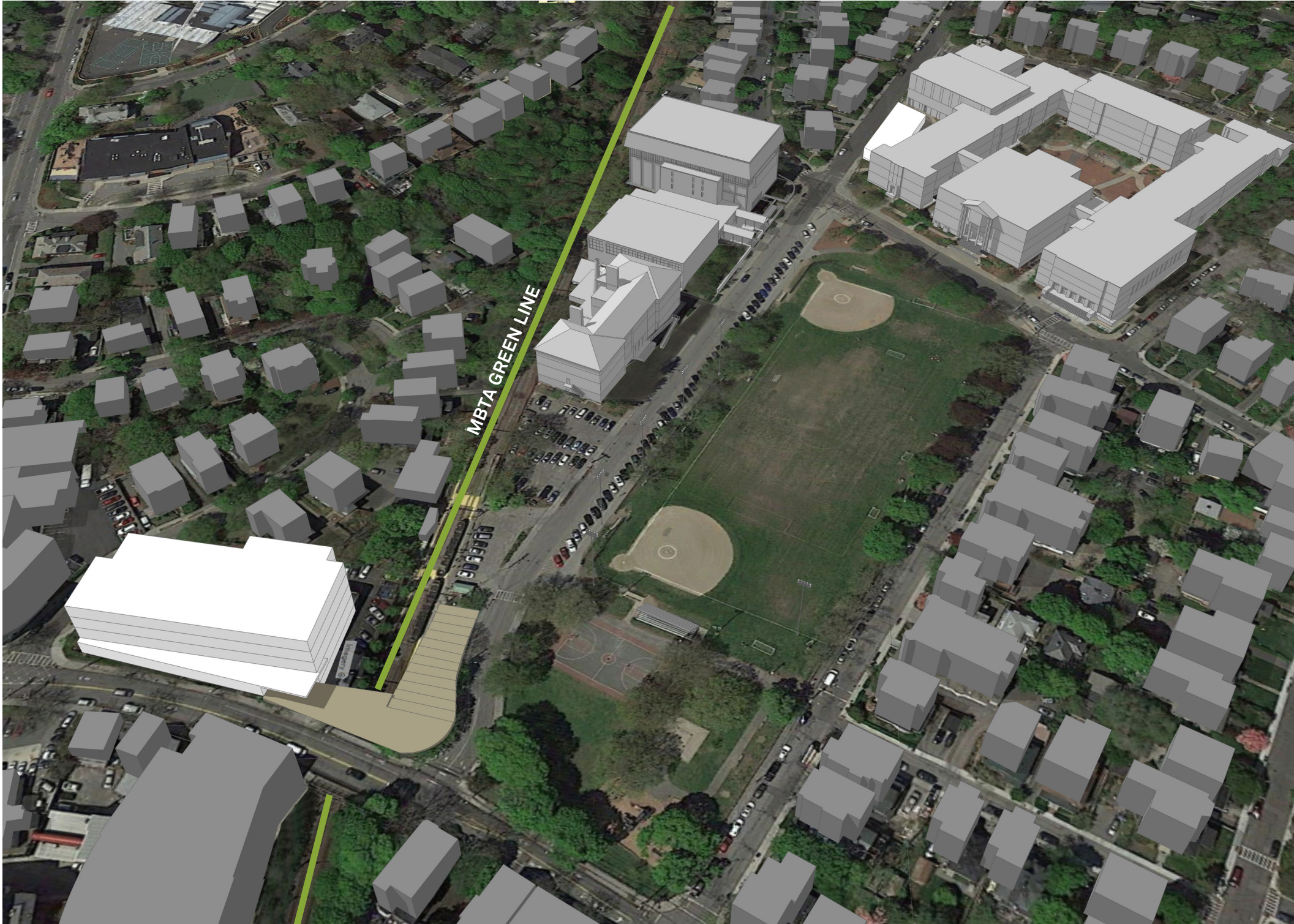
plus  
3. Tappan Gym  
Field House Addition

Massing



# OPTION 4A

New Cypress Building with BHS-Greenough  
Renovate Existing Science & New 5-Classroom Addition



Renovate Existing BHS  
Science  
35,500 sf

New Construction at BHS  
7,500 sf

New Construction at  
Cypress Building  
109,810 sf

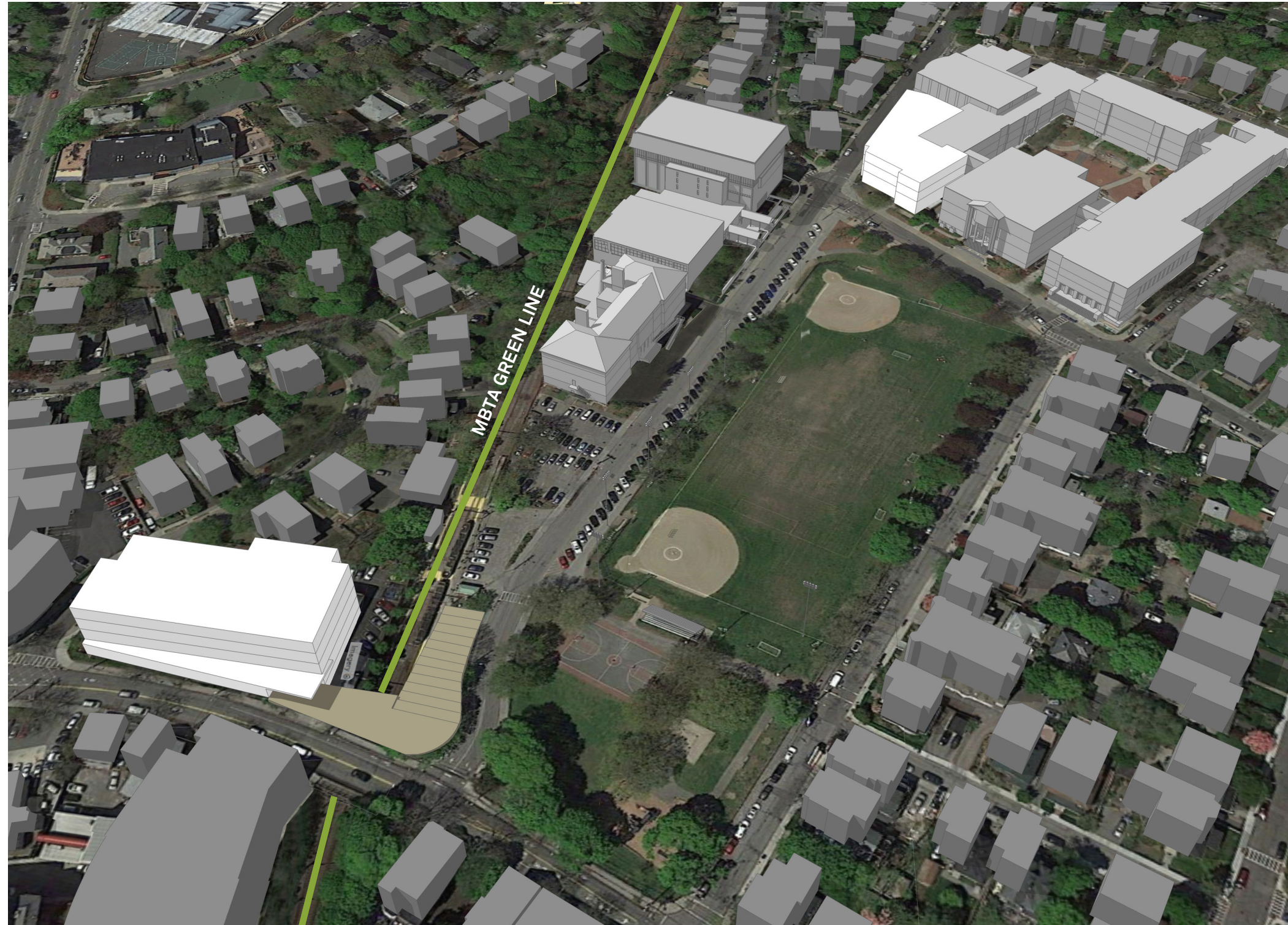
Massing



# OPTION 4B

New Cypress Building with BHS-Greenough

New Science at Roberts Wing & Renovate 3rd Floor as Core Academics



Renovate Existing BHS  
Science into Classrooms  
36,500 sf

New Construction at BHS  
44,100 sf

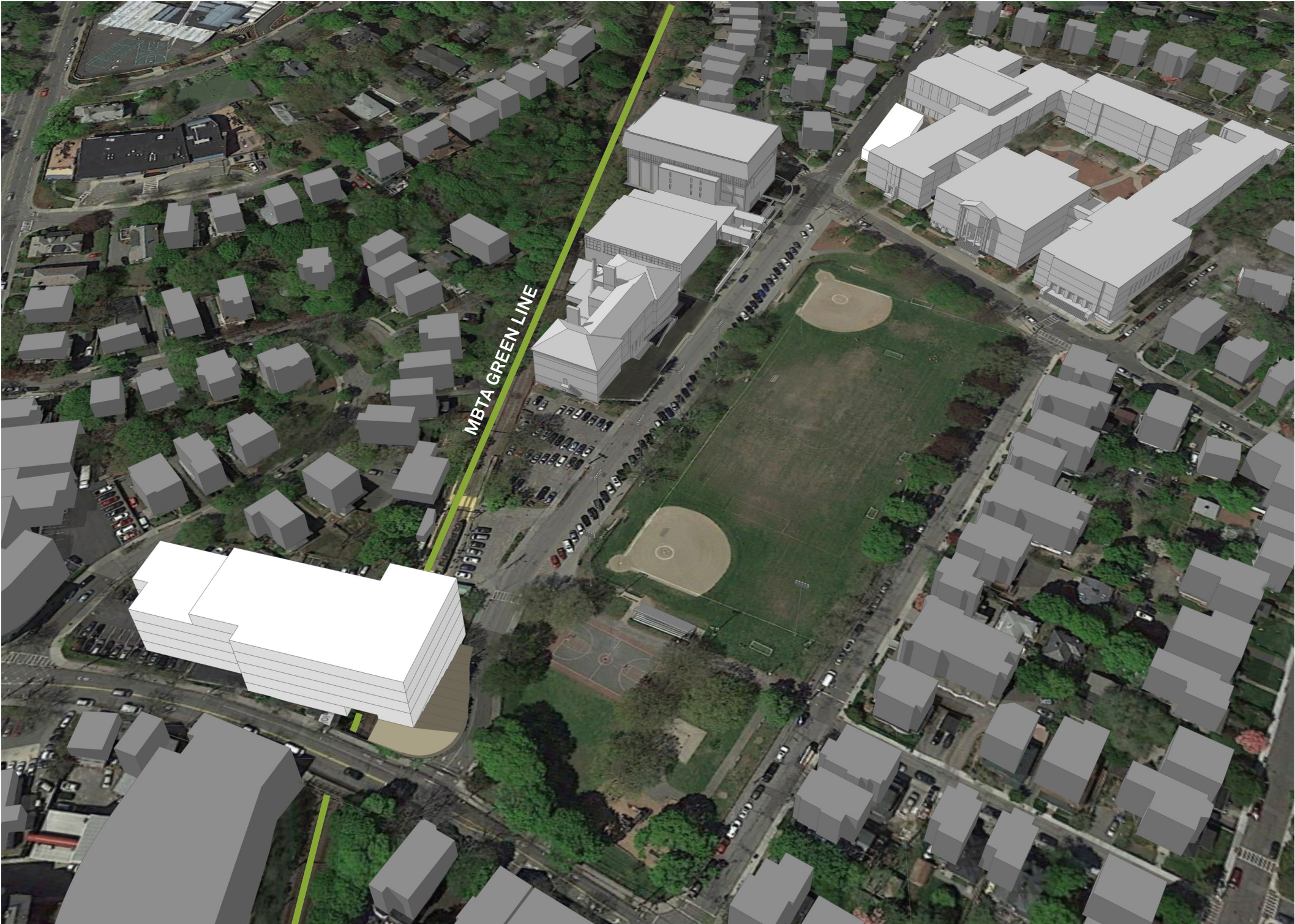
New Construction at  
Cypress Building  
109,810 sf

Massing



# OPTION 4C

New Cypress Building over the MBTA with BHS-Greenough  
Renovate Existing Science & New 5-Classroom Addition



Renovate Existing BHS  
Science  
35,500 sf

New Construction at BHS  
7,500 sf

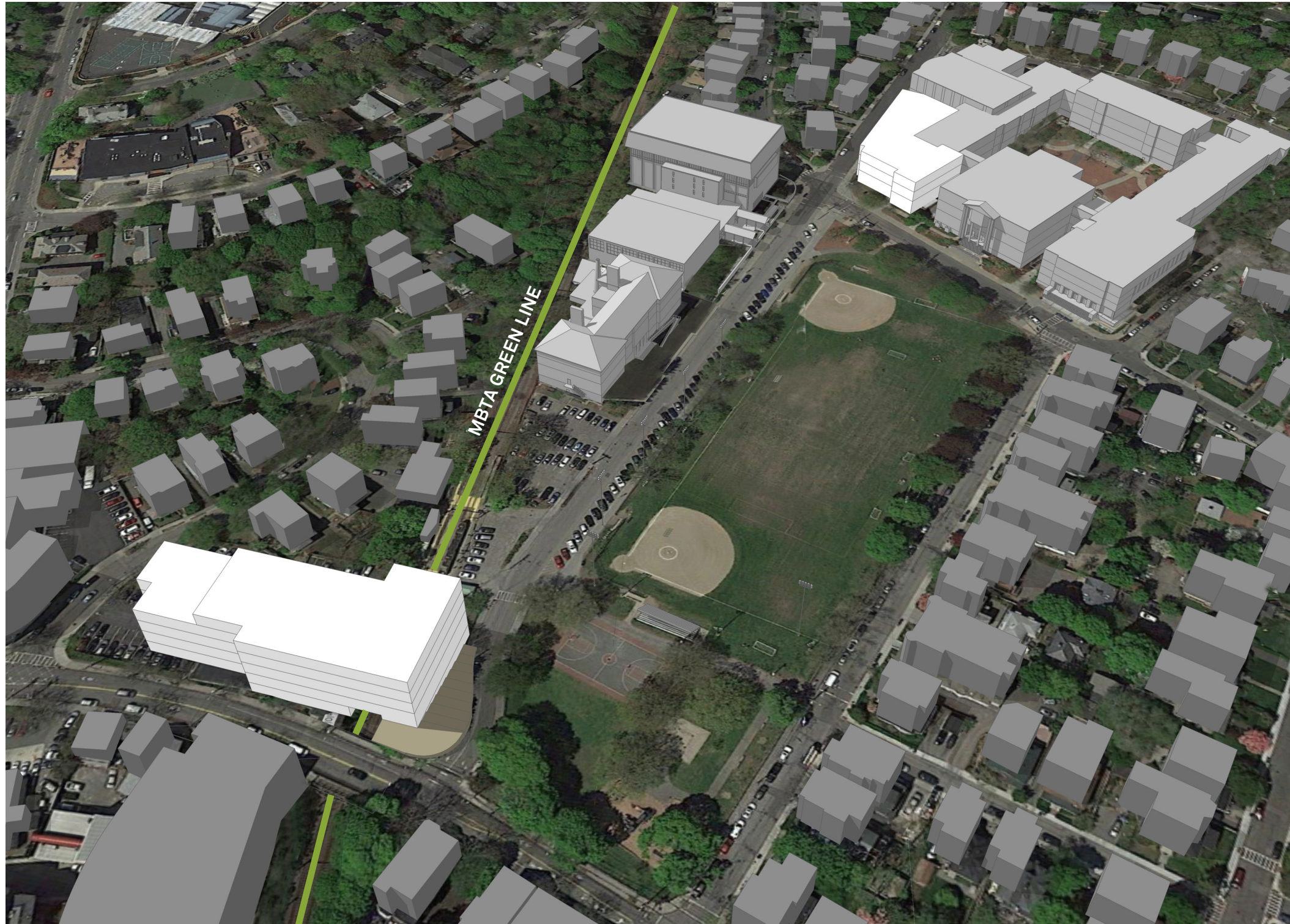
New Construction at  
Cypress Building  
112,700 sf

Massing



# OPTION 4D

New Cypress Building over the MBTA with BHS-Greenough  
New Science at Roberts Wing & Renovate 3rd Floor as Core Academics



Renovate Existing Science into Classrooms  
36,500 sf

New Construction at BHS  
50,400 sf

New Construction at Cypress Building  
112,700 sf

Massing

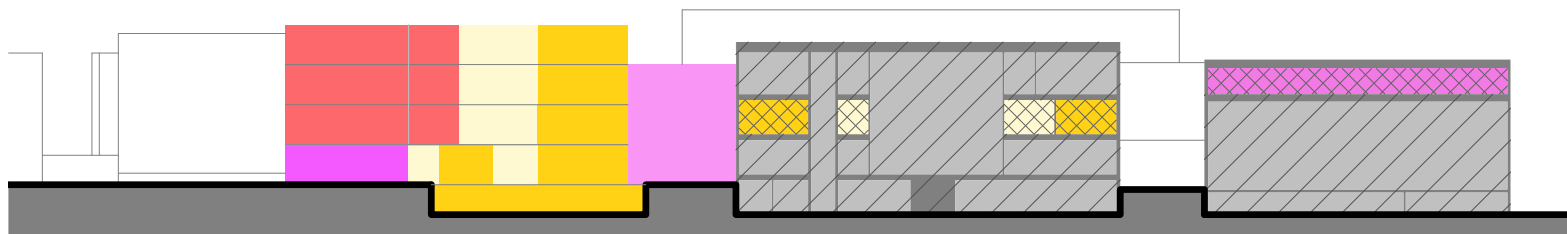


# OPTION 1

## Enrollment Accommodation



Massing



Section

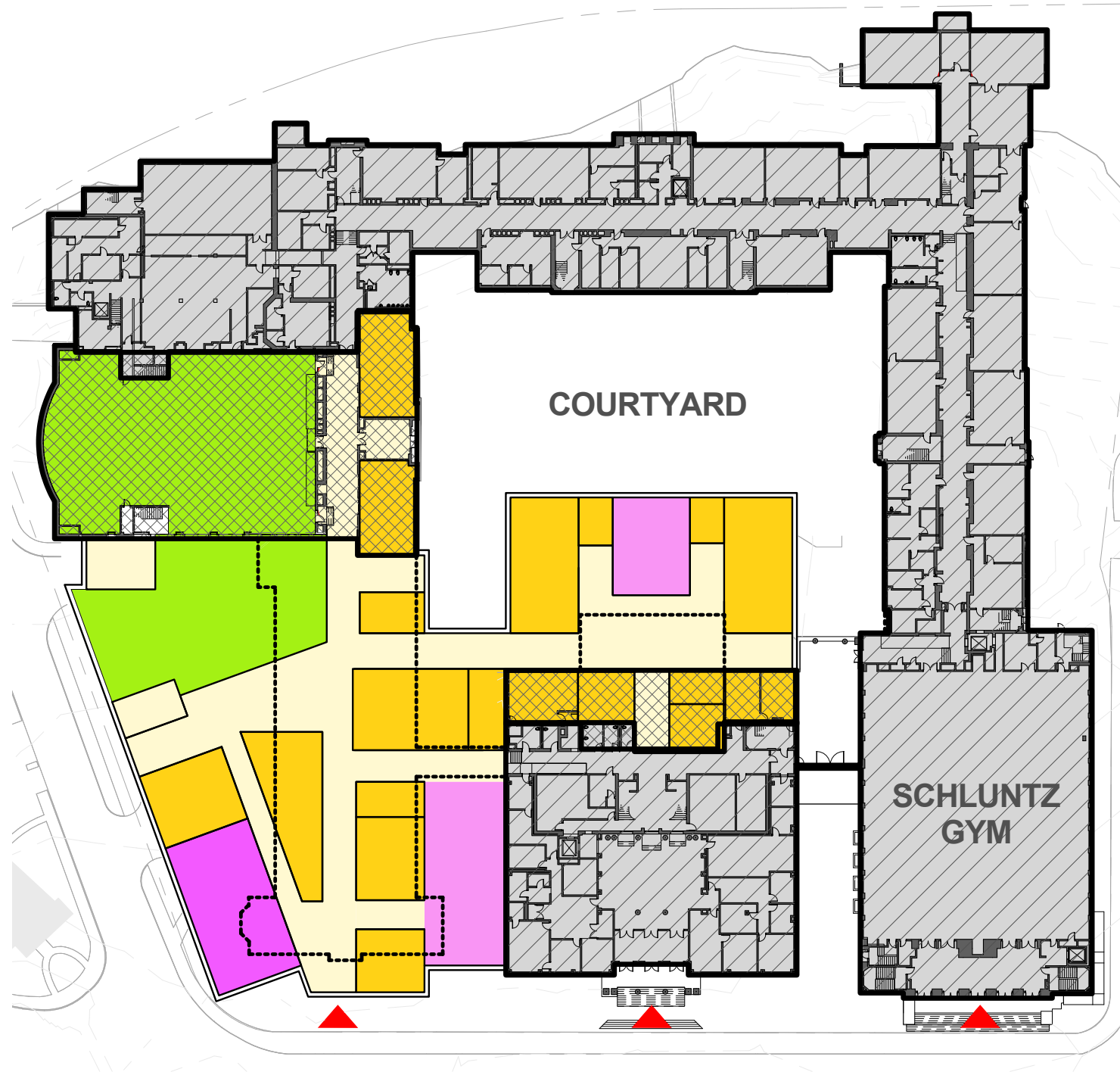
CIRCULATION
  CORE ACADEMICS
  SCIENCE
  COLLABORATIVE
  LIBRARY
  CULINARY ARTS
  DINING COMMONS
  PERFORMANCE

EXTENT OF DEMOLITION
  EXISTING - NO WORK
  RENOVATION

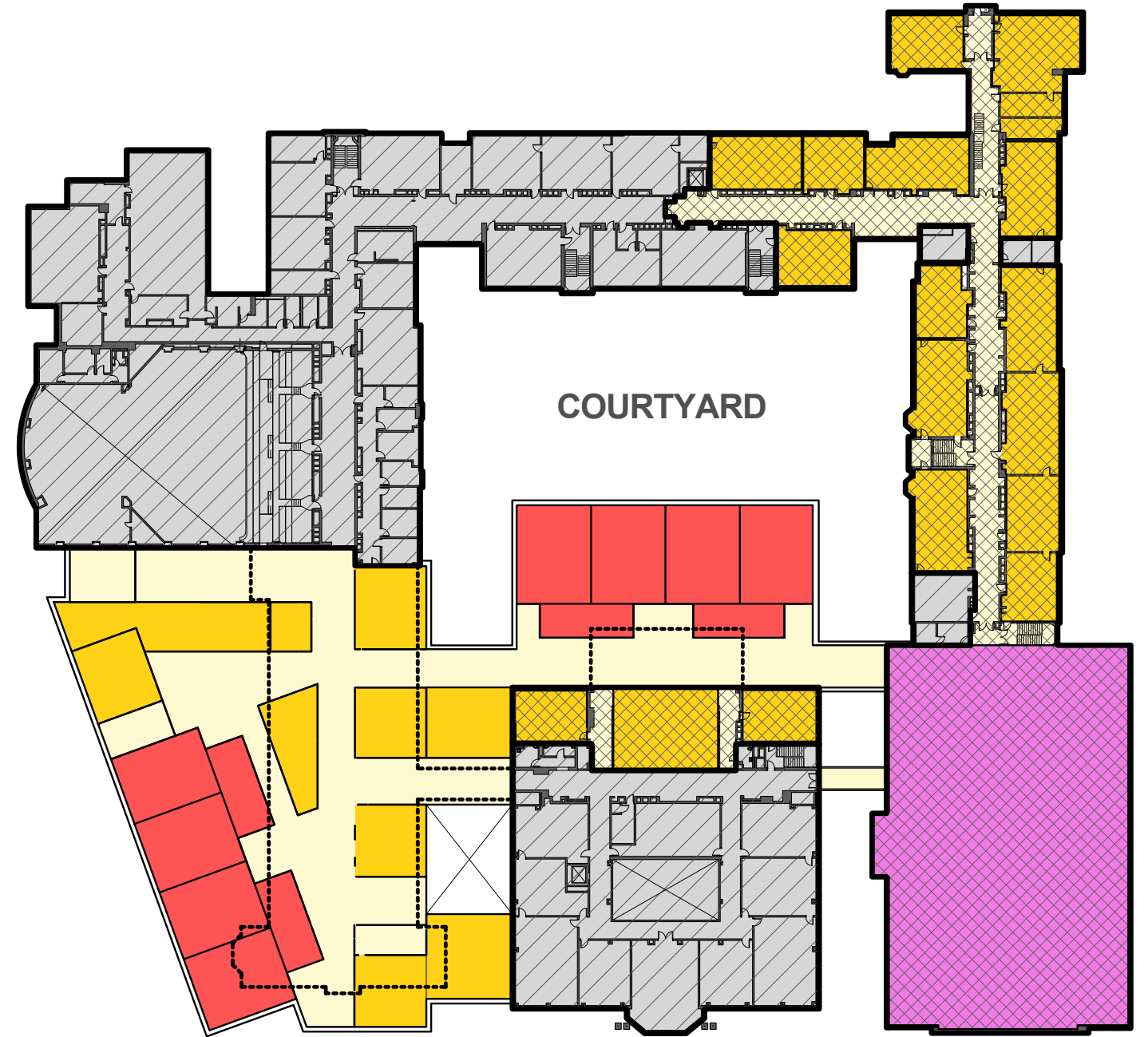


# OPTION 1

## Enrollment Accommodation



1st Floor Plan



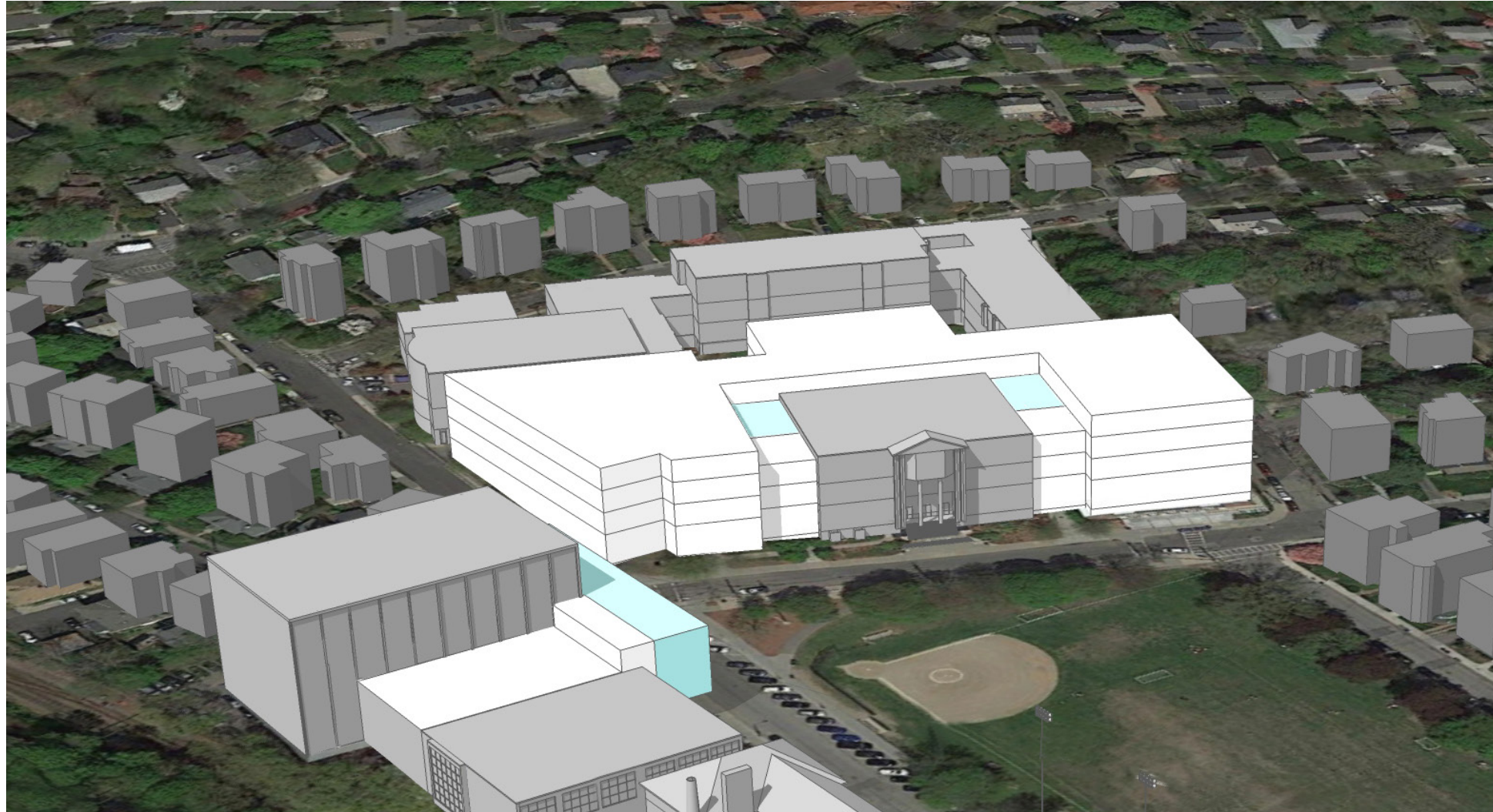
3rd Floor Plan



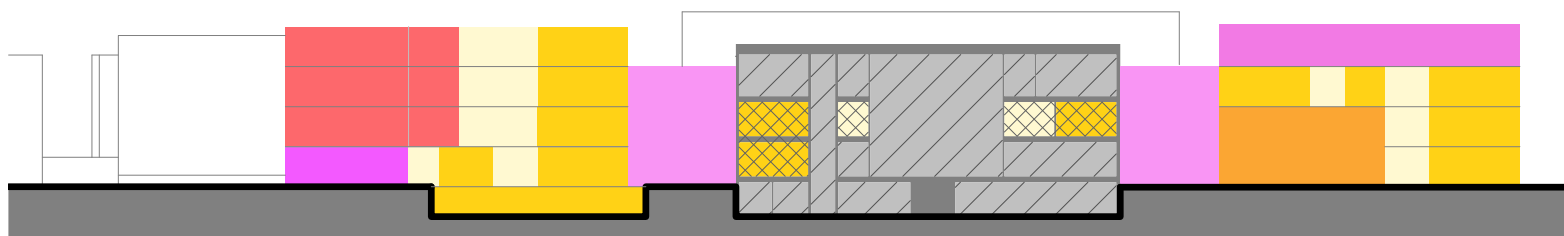


# OPTION 2

## MA State High School Standards



Massing



Section

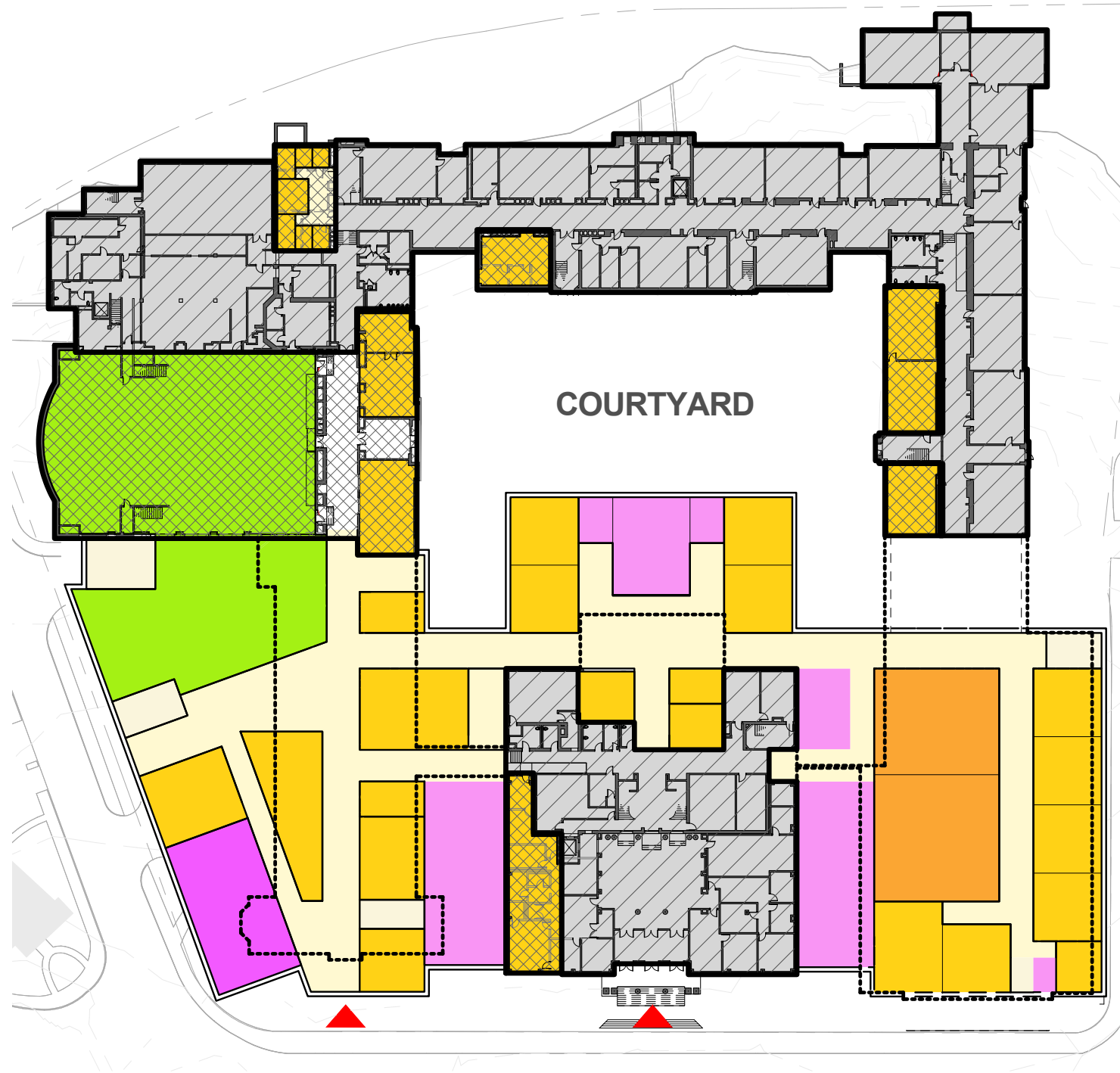
CIRCULATION CORE ACADEMICS SCIENCE COLLABORATIVE LIBRARY CULINARY ARTS DINING COMMONS PERFORMANCE

..... EXTENT OF DEMOLITION    ▨ EXISTING - NO WORK    ▩ RENOVATION

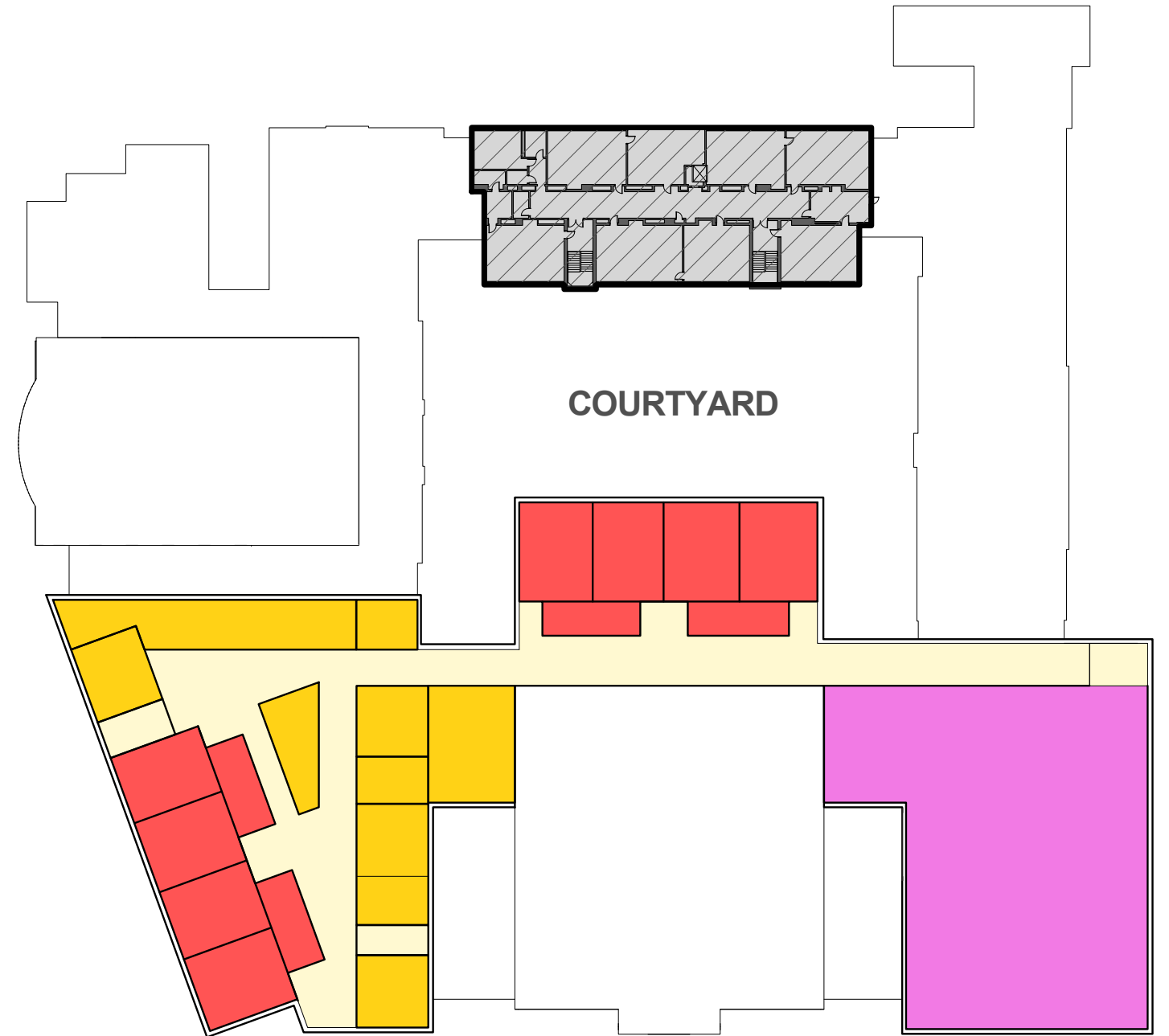


# OPTION 2

## MA State High School Standards



1st Floor Plan



4th Floor Plan



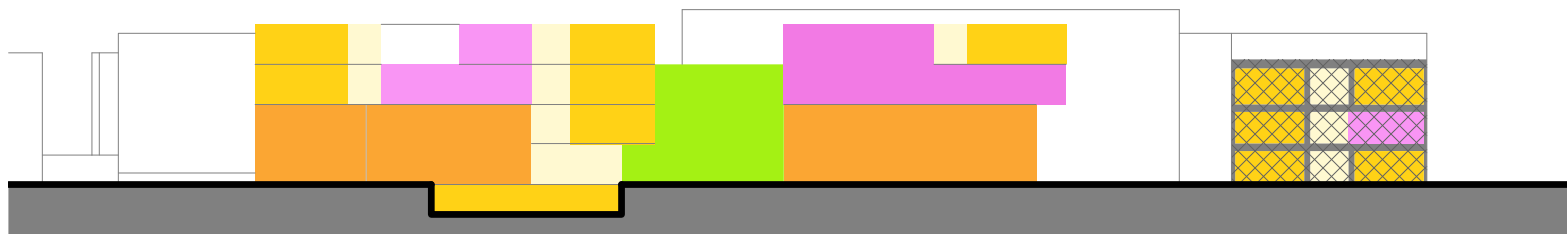


# OPTION 3

## Brookline High School Education Plan



Massing 3 With Tappan Gym



Section 3

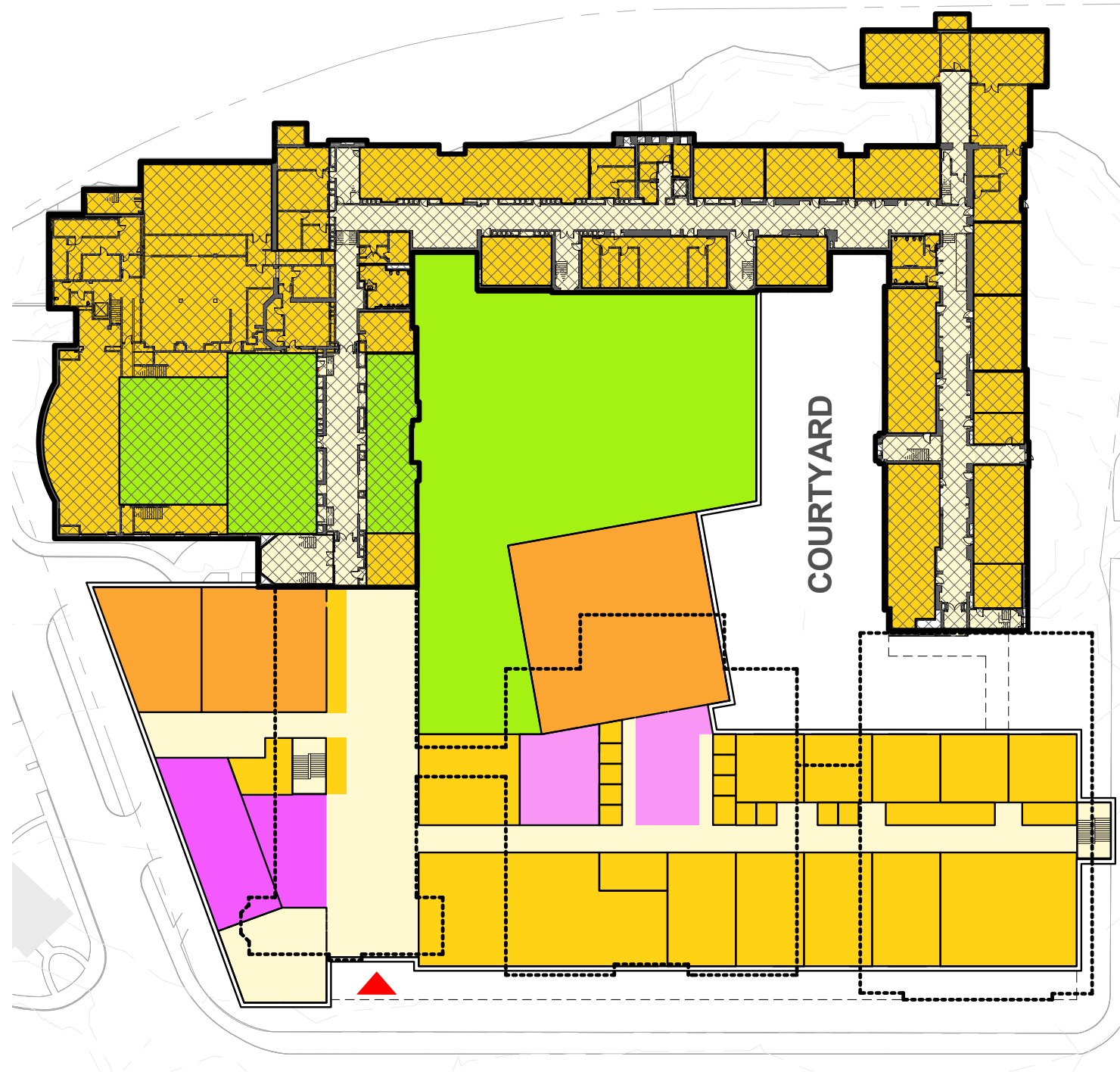
CIRCULATION CORE ACADEMICS SCIENCE COLLABORATIVE LIBRARY CULINARY ARTS DINING COMMONS PERFORMANCE

..... EXTENT OF DEMOLITION    ▨ EXISTING - NO WORK    ▩ RENOVATION

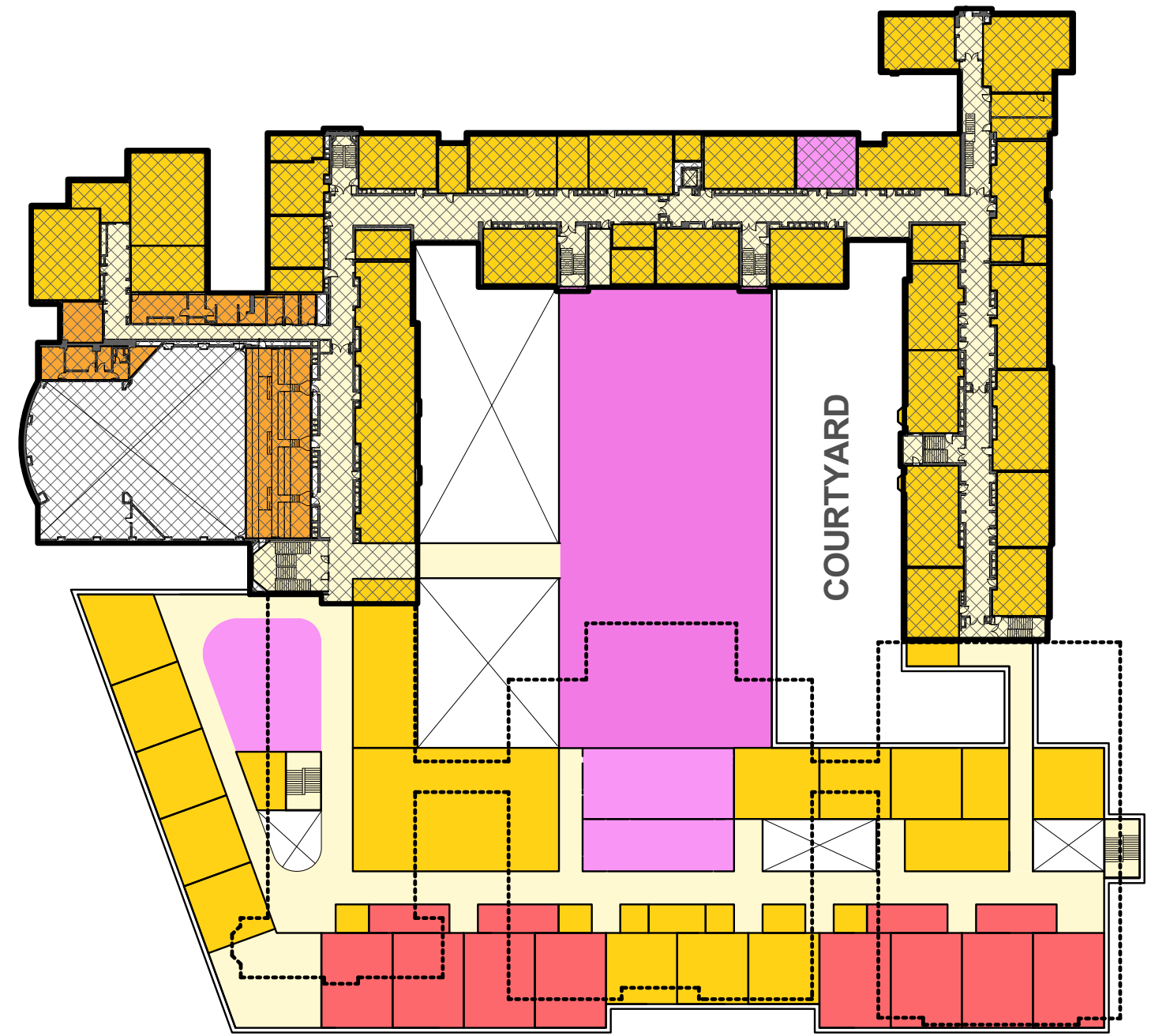


# OPTION 3

## Brookline High School Education Plan



1st Floor Plan



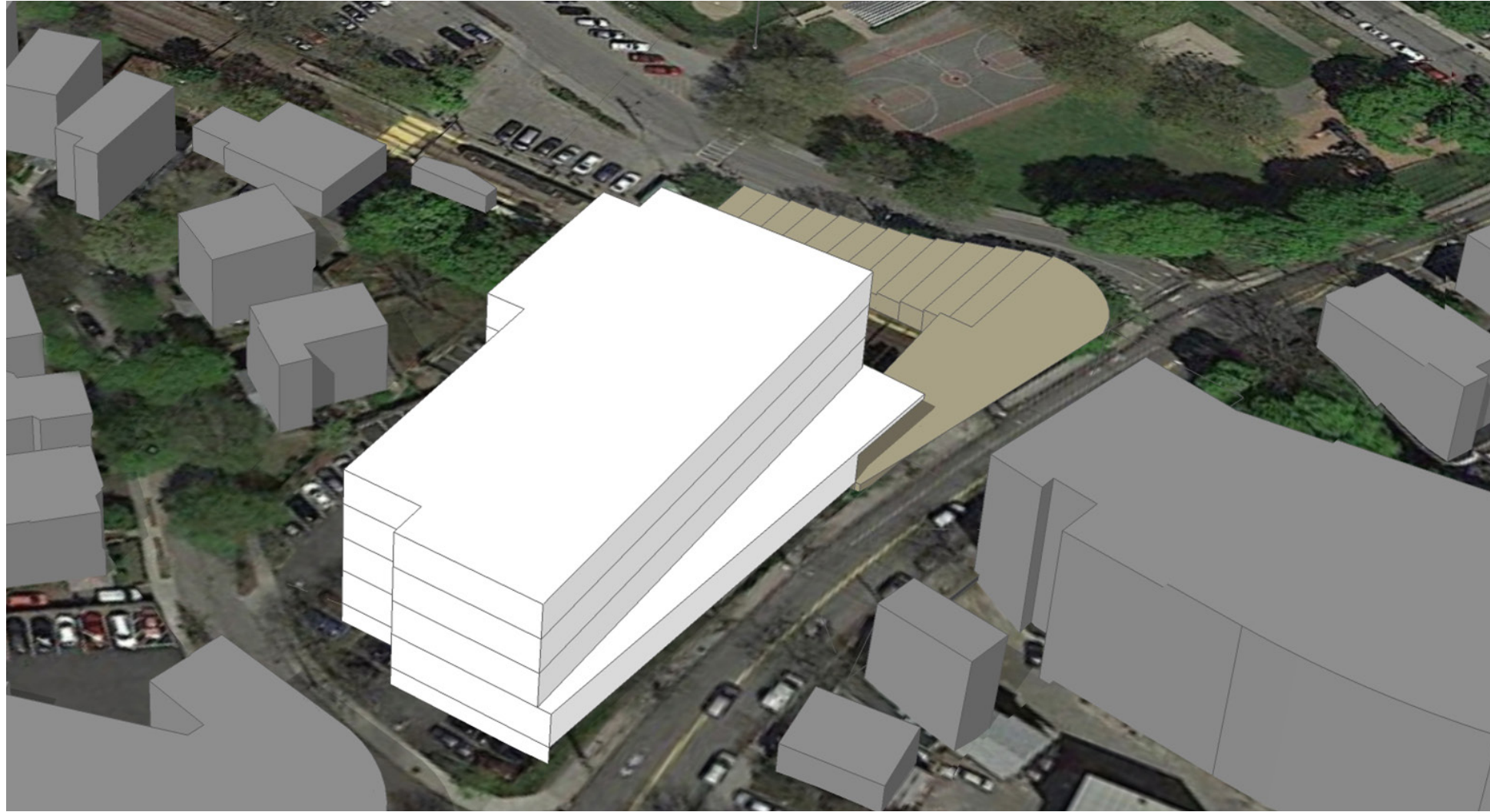
3rd Floor Plan



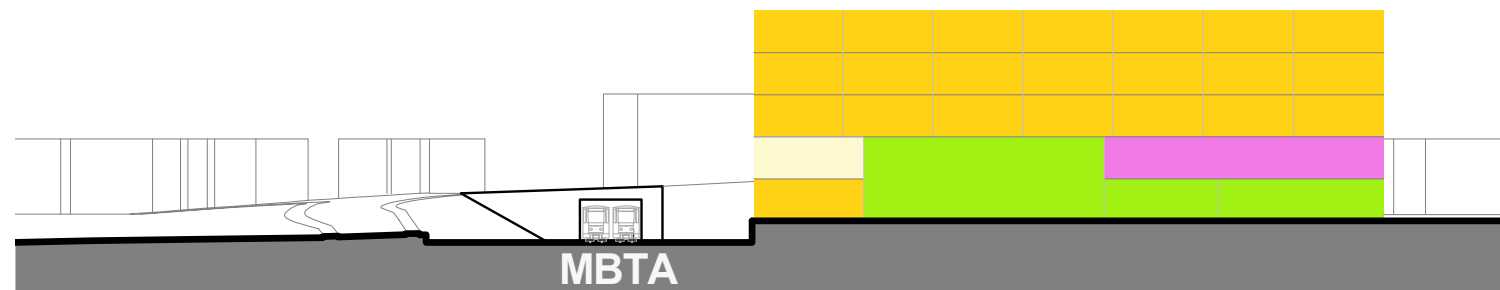


# OPTION 4A & 4B

## New Cypress Building



Massing 4A & 4B



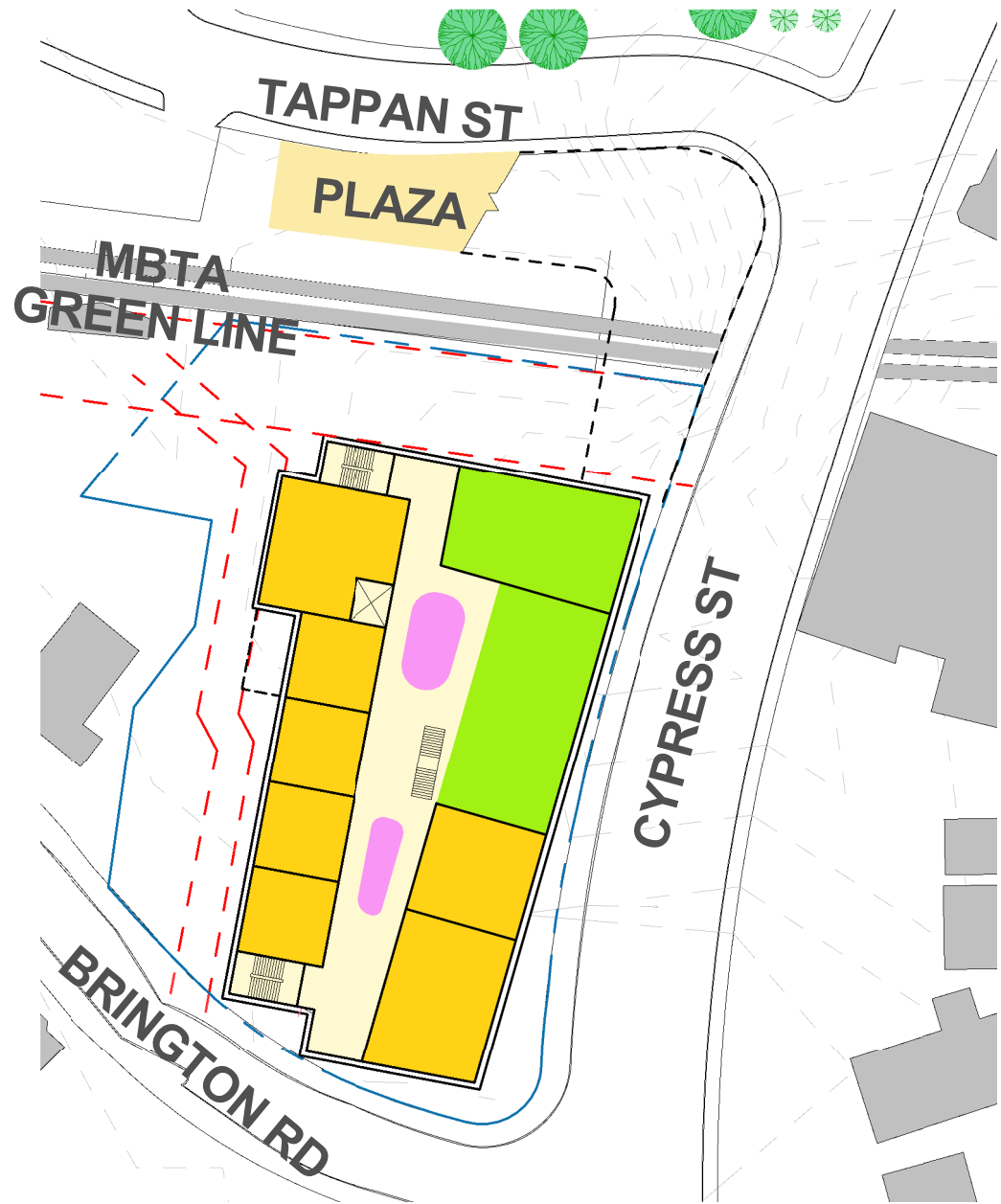
Section 4A & 4B

- CIRCULATION
- CORE ACADEMICS
- SCIENCE
- COLLABORATIVE
- LIBRARY
- CULINARY ARTS
- DINING COMMONS
- PERFORMANCE
- EXTENT OF DEMOLITION
- EXISTING - NO WORK
- RENOVATION

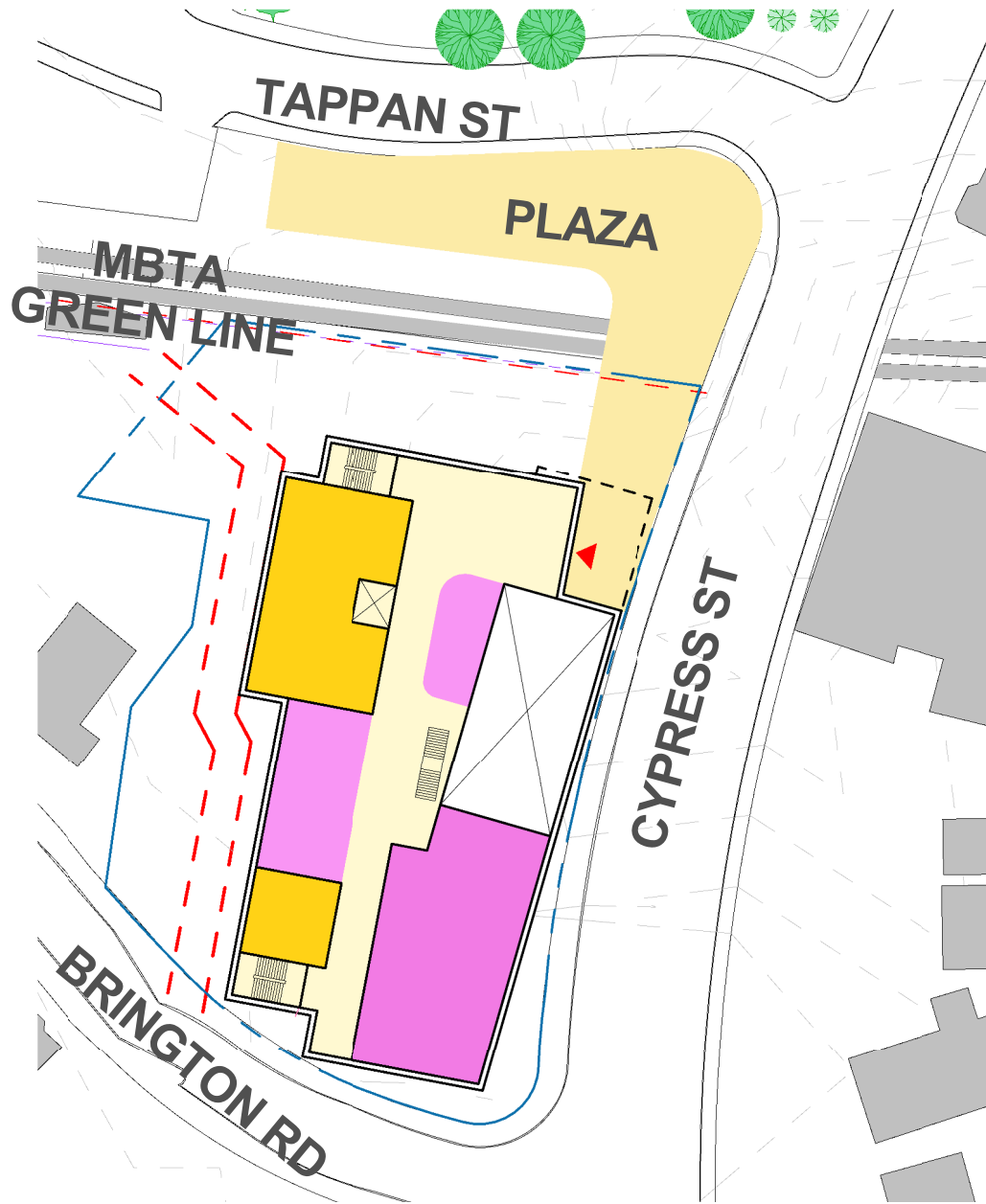


# OPTION 4A & 4B

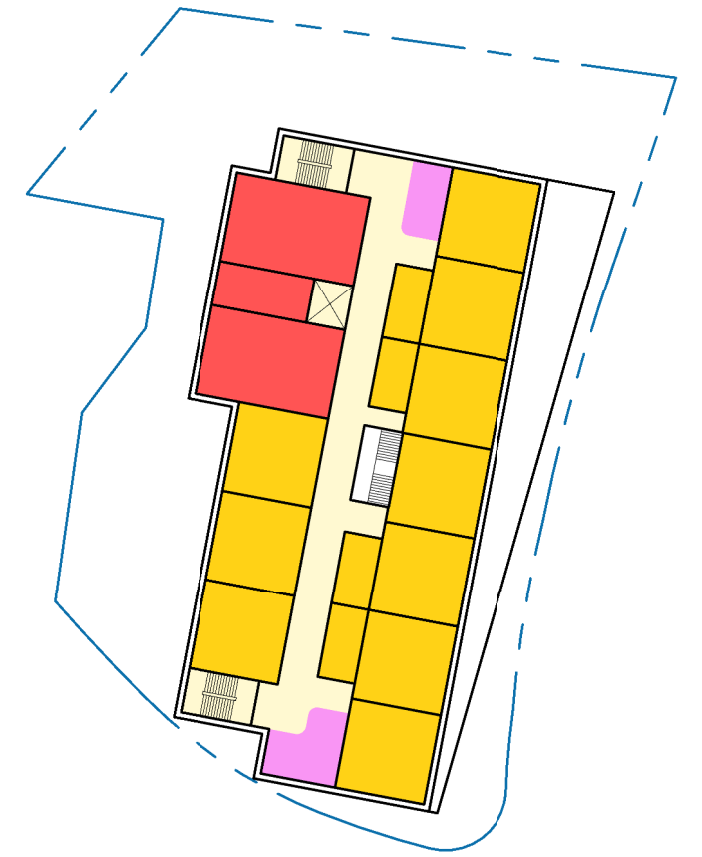
## New Cypress Building



Ground Level Plan



1st Floor Plan



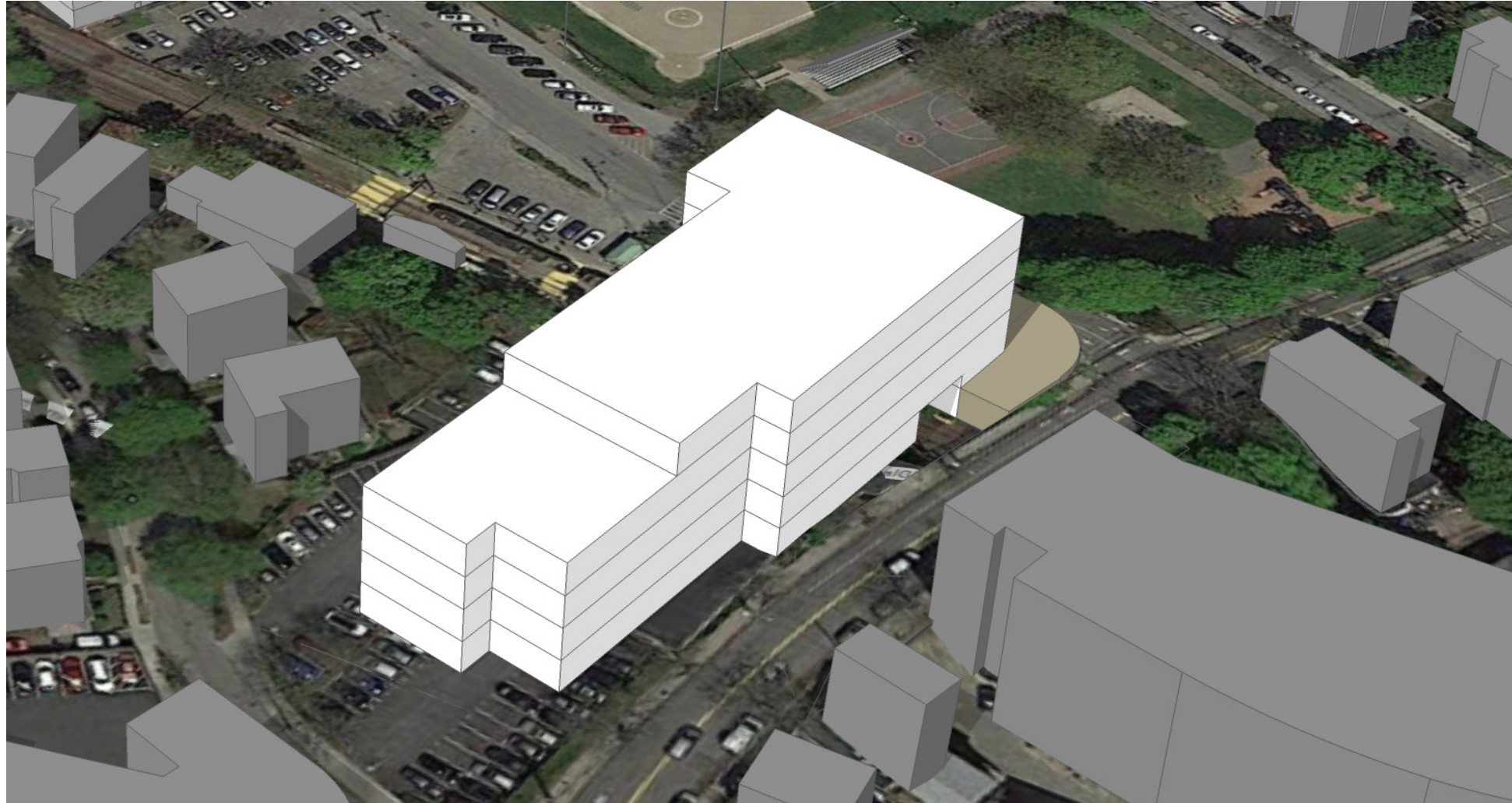
2nd - 4th Floor Plan

CIRCULATION
  CORE ACADEMICS
  SCIENCE
  COLLABORATIVE
  LIBRARY
  CULINARY ARTS
  DINING COMMONS
  PERFORMANCE
  EXTENT OF DEMOLITION
  EXISTING - NO WORK
  RENOVATION

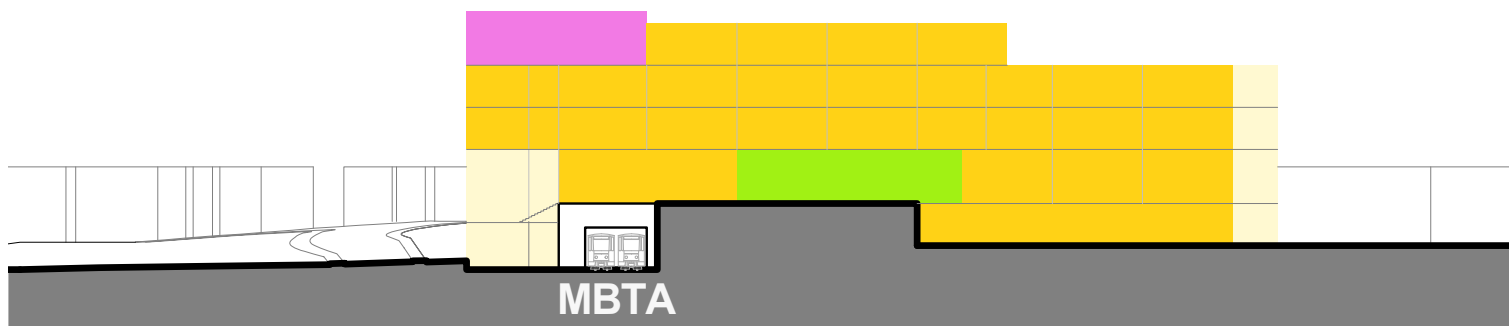




# OPTION 4C & 4D: New Cypress Building over the MBTA



Massing 4C & 4D

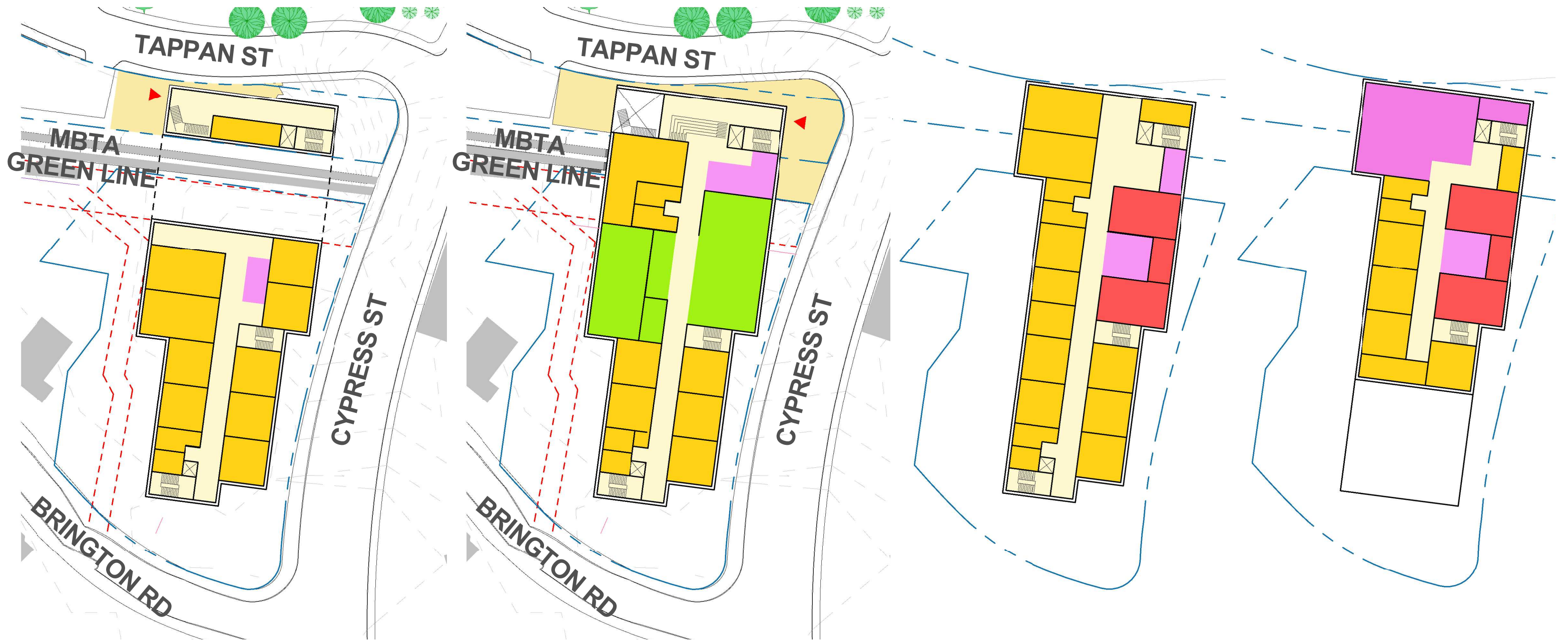


Section 4C & 4D

- CIRCULATION
- CORE ACADEMICS
- SCIENCE
- COLLABORATIVE
- LIBRARY
- CULINARY ARTS
- DINING COMMONS
- PERFORMANCE
- EXTENT OF DEMOLITION
- EXISTING - NO WORK
- RENOVATION



# OPTION 4C & 4D: New Cypress Building over the MBTA

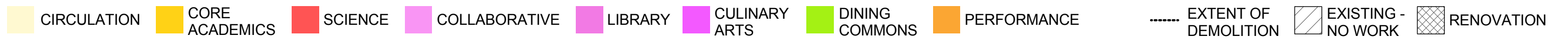


Ground Floor Plan

1st Floor Plan

2nd - 3rd Floor Plan

4th Floor Plan



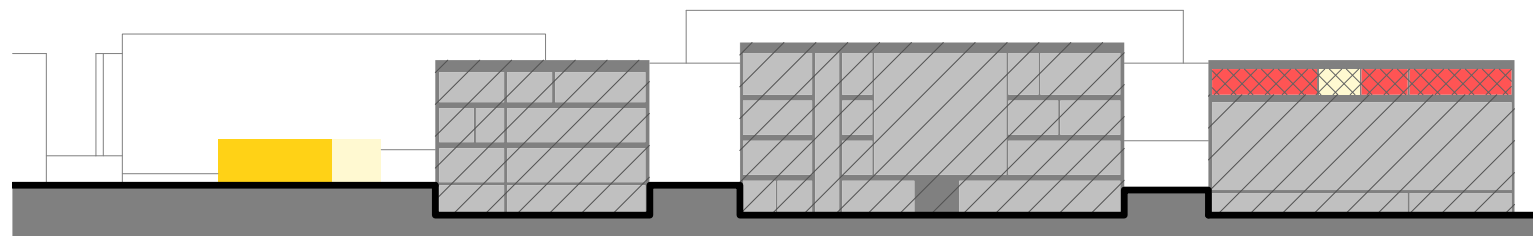


# OPTION 4A & 4C

## Brookline High School New 5-Classroom Addition & Renovate Existing Science



Massing 4A & 4C



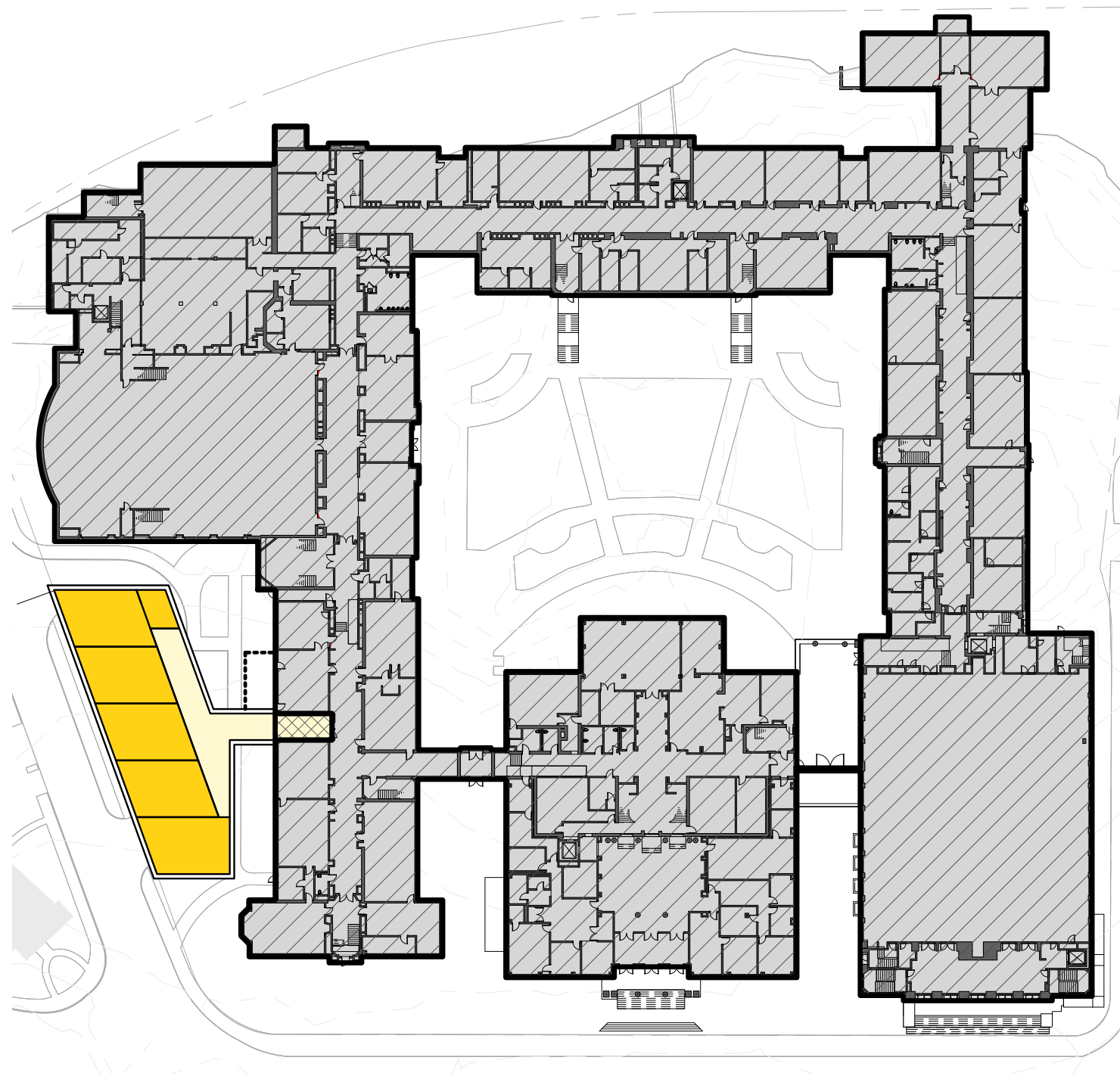
Section 4A & 4C

- CIRCULATION
- CORE ACADEMICS
- SCIENCE
- COLLABORATIVE
- LIBRARY
- CULINARY ARTS
- DINING COMMONS
- PERFORMANCE
- EXTENT OF DEMOLITION
- EXISTING - NO WORK
- RENOVATION

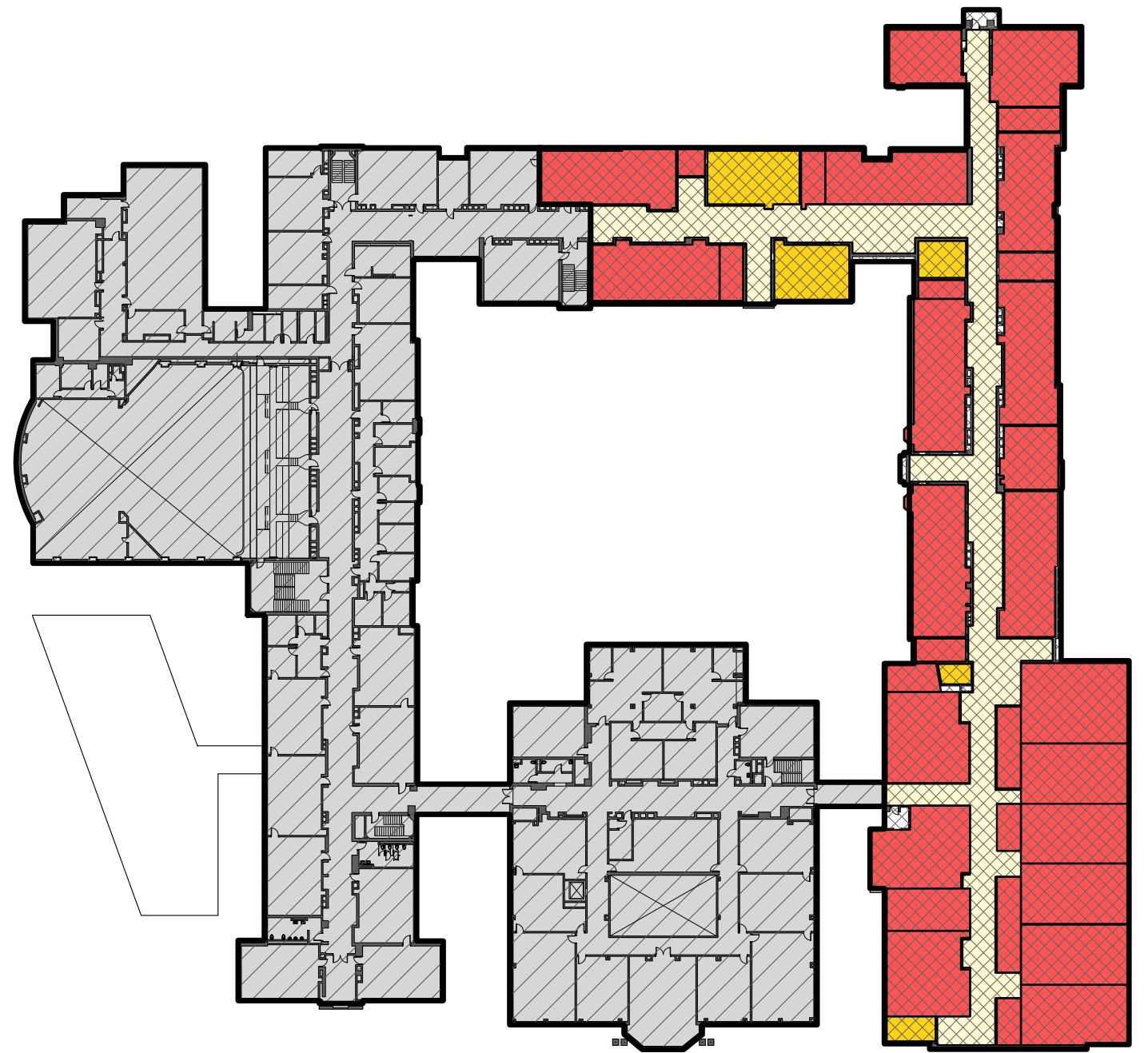


# OPTION 4A & 4C

## Brookline High School New 5-Classroom Addition & Renovate Existing Science



1st Floor Plan



3rd Floor Plan



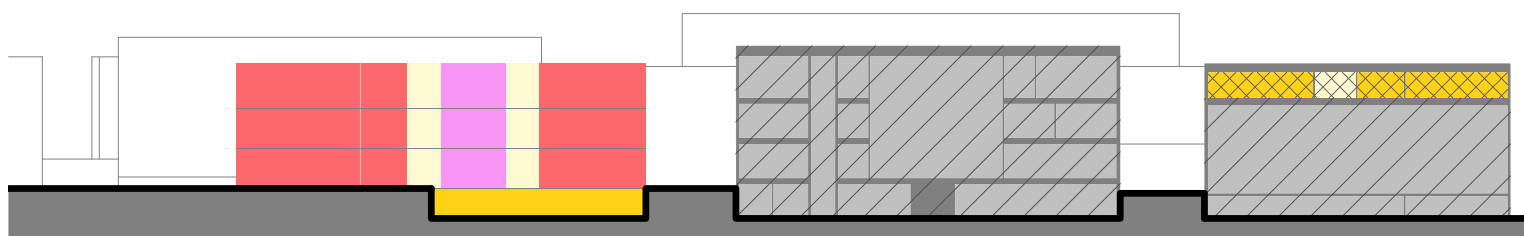


# OPTION 4B & 4D

Brookline High School New Science at Roberts Wing & Renovate 3rd Floor as Core Academics



Massing 4B & 4D



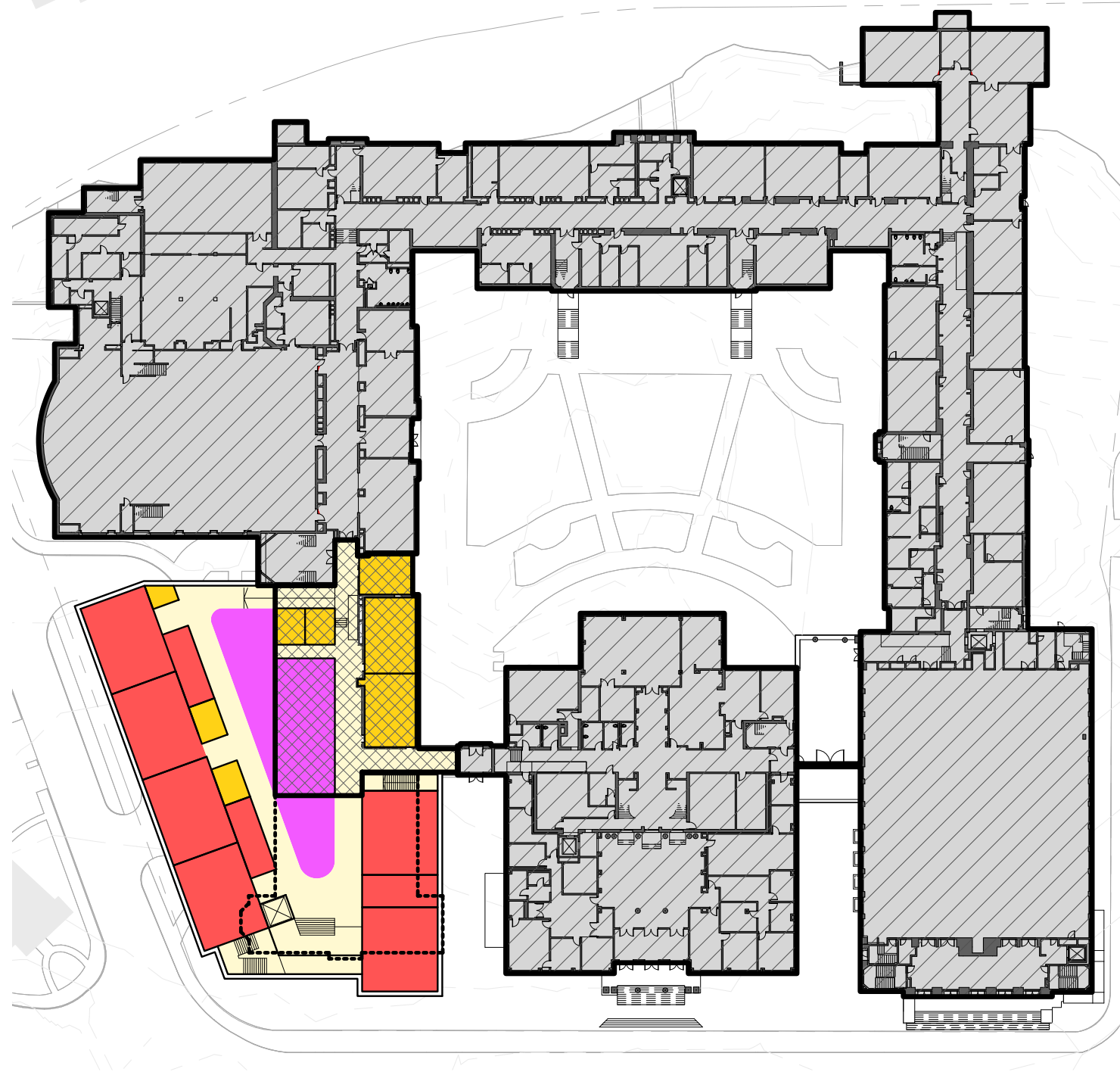
Section 4B & 4D

CIRCULATION CORE ACADEMICS SCIENCE COLLABORATIVE LIBRARY CULINARY ARTS DINING COMMONS PERFORMANCE EXTENT OF DEMOLITION EXISTING - NO WORK RENOVATION

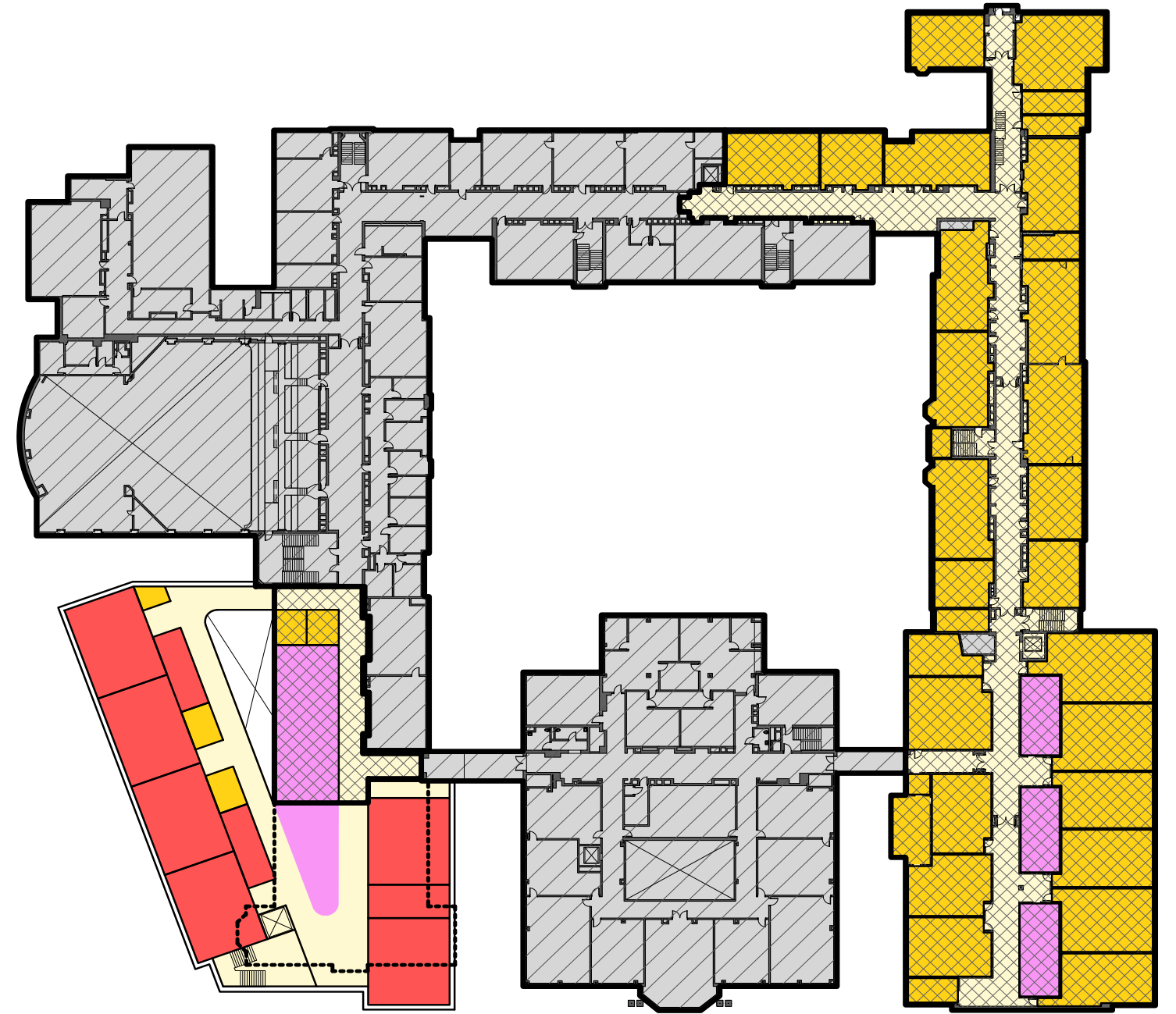


# OPTION 4B & 4D

Brookline High School New Science at Roberts Wing & Renovate 3rd Floor as Core Academics



1st Floor Plan



3rd Floor Plan

CIRCULATION
  CORE ACADEMICS
  SCIENCE
  COLLABORATIVE
  LIBRARY
  CULINARY ARTS
  DINING COMMONS
  PERFORMANCE
  EXTENT OF DEMOLITION
  EXISTING - NO WORK
  RENOVATION

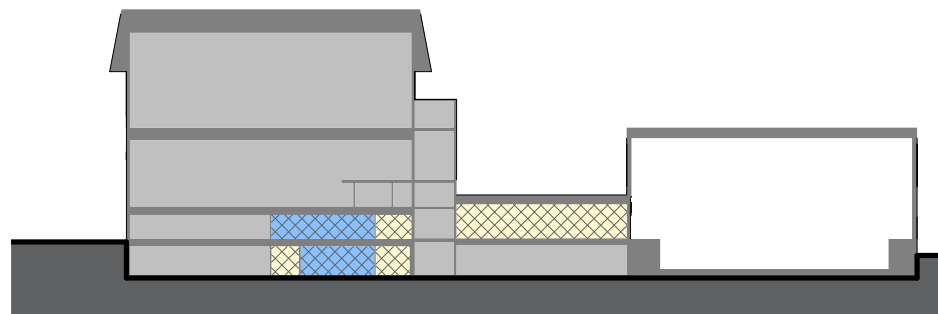


# OPTIONAL PROJECT - with Option 1 or Option 4



## 1. Tappan Gym - Minimal Renovations



Tappan Gym Massing



Tappan Gym Section

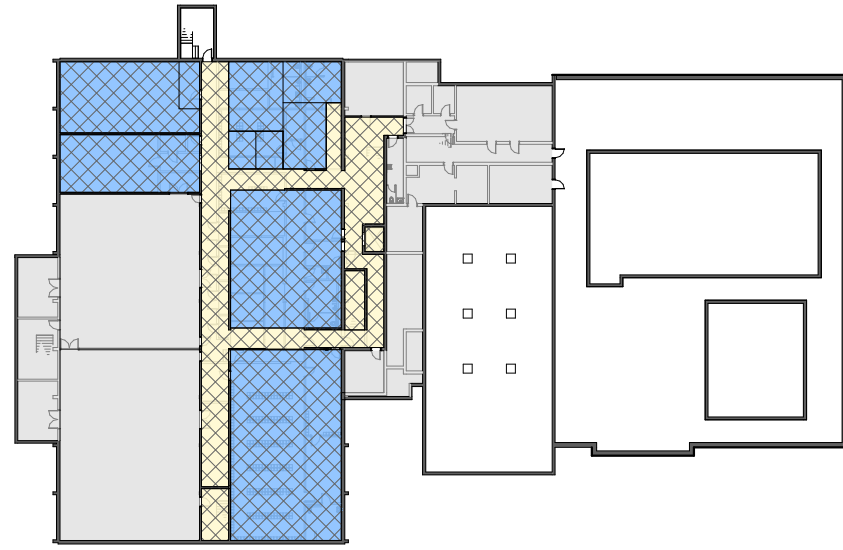
 CIRCULATION  HEALTH AND PHYSICAL EDUCATION

 EXTENT OF DEMOLITION  EXISTING - NO WORK  RENOVATION

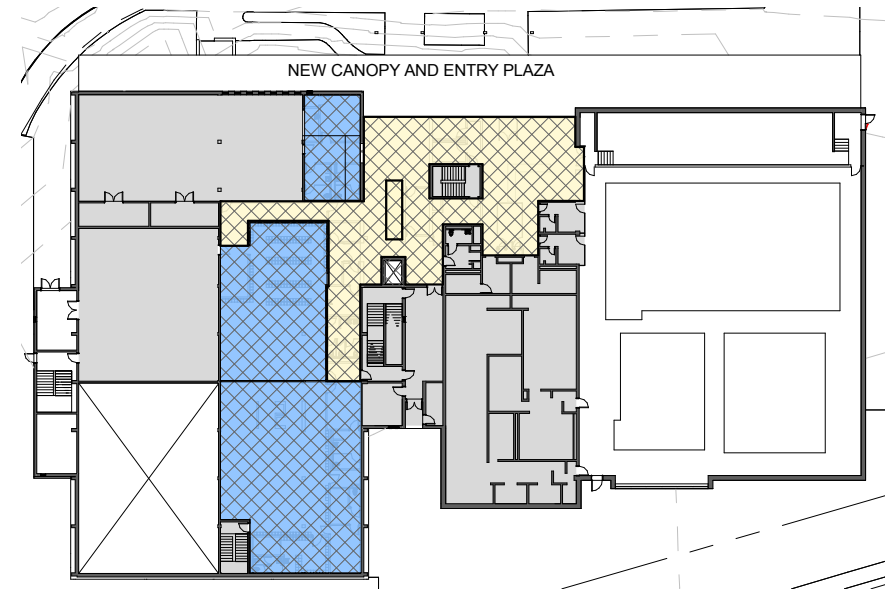


# OPTIONAL PROJECT - with Option 1 or Option 4

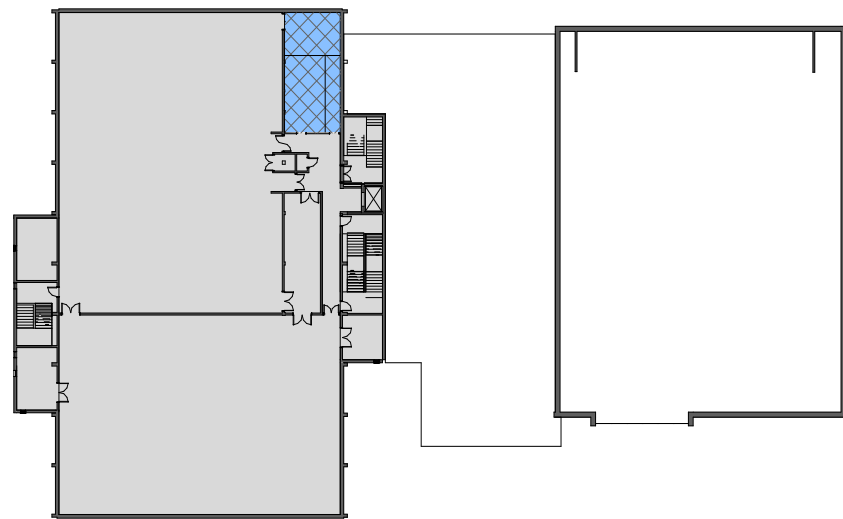
## 1. Tappan Gym - Minimal Renovations



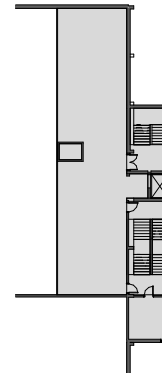
Basement



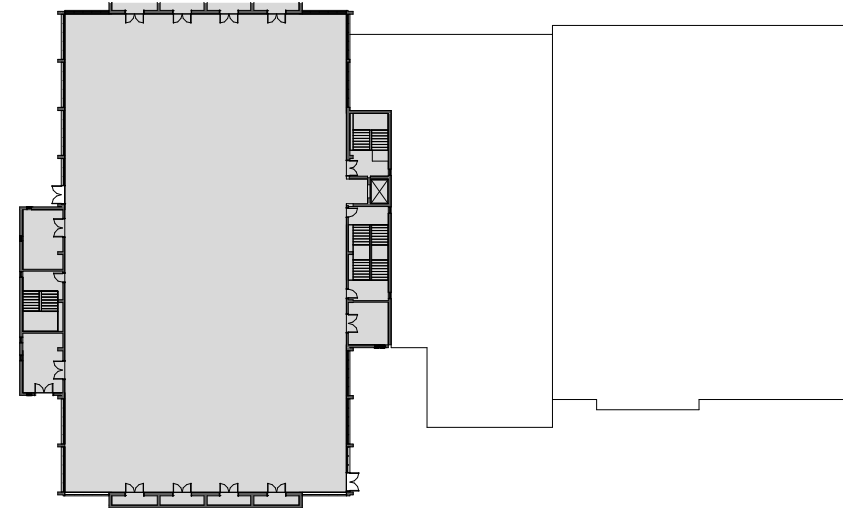
First Floor





Second Floor



Mezzanine



Third Floor

 CIRCULATION  HEALTH AND PHYSICAL EDUCATION

 EXTENT OF DEMOLITION  EXISTING - NO WORK  RENOVATION

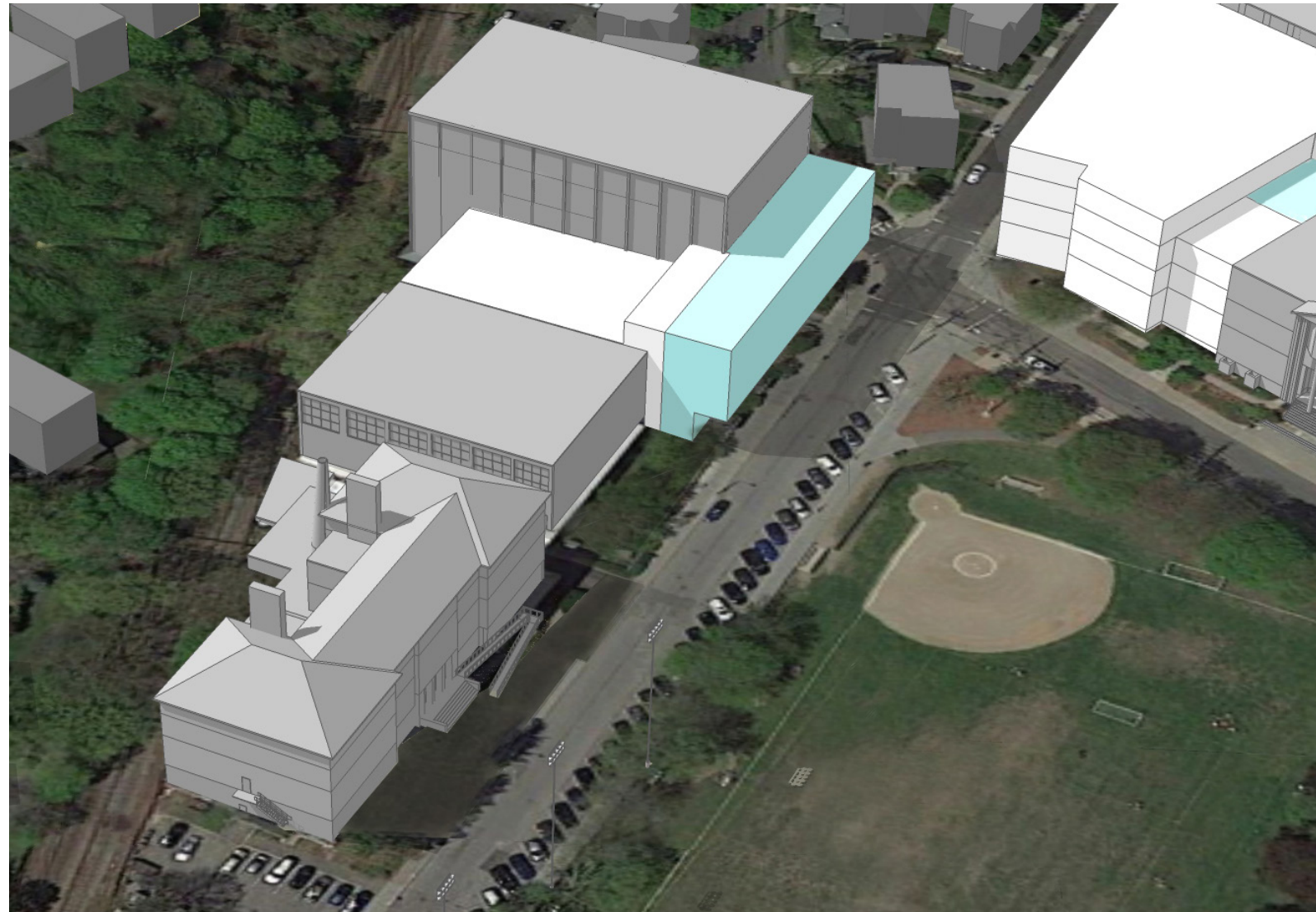




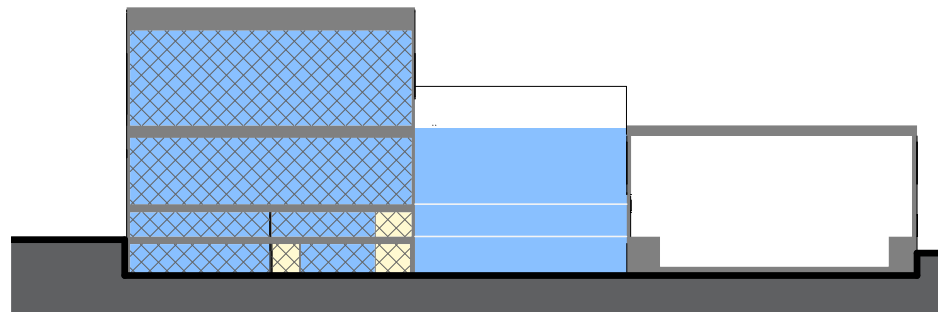
# OPTION 2

MA State High School Standards



2. Tappan Gym - Moderate Expansion with Competition & Practice Gym



Tappan Gym Massing



Tappan Gym Section

 CIRCULATION  HEALTH AND PHYSICAL EDUCATION

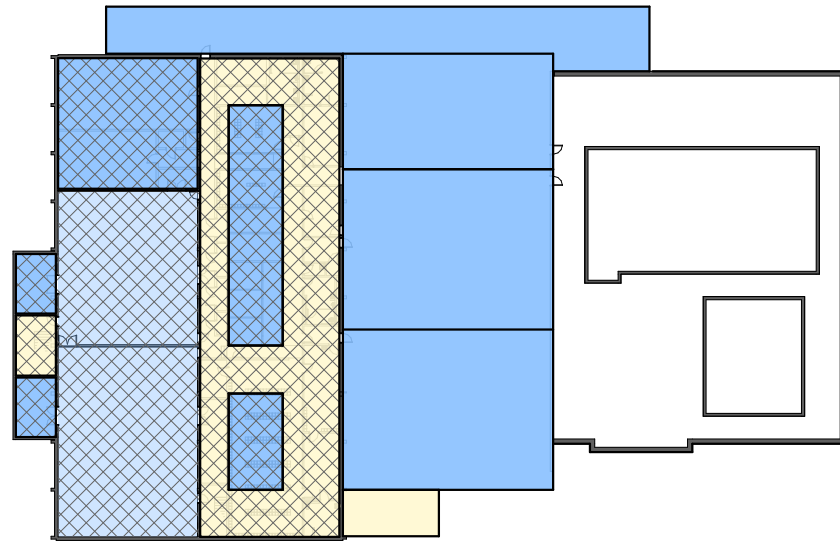
 EXTENT OF DEMOLITION  EXISTING - NO WORK  RENOVATION



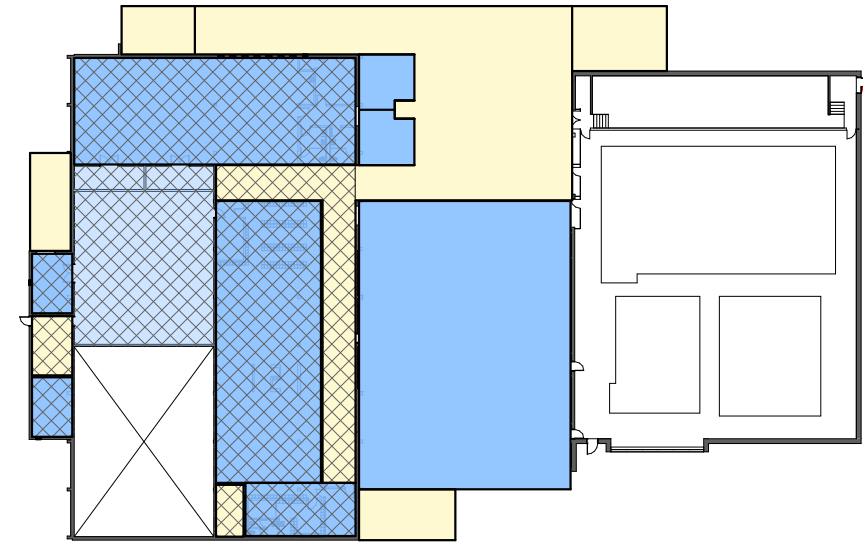
# OPTION 2

## MA State High School Standards

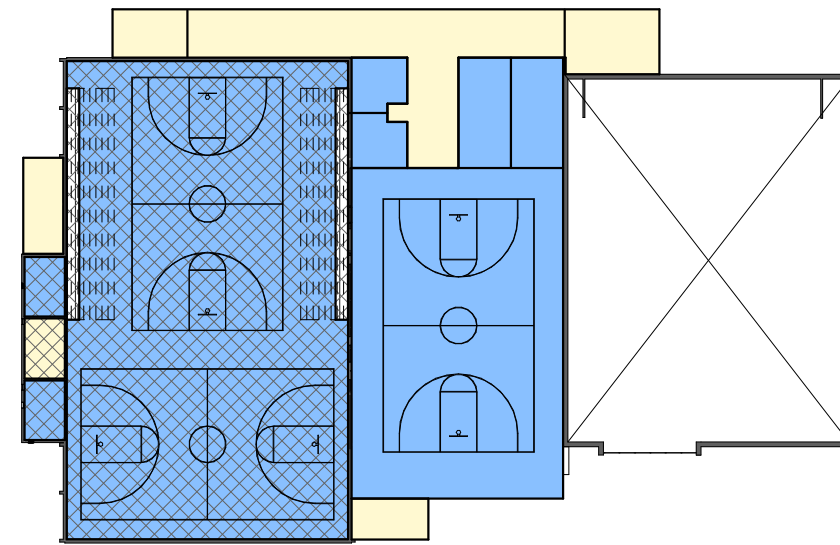
### 2. Tappan Gym - Moderate Expansion with Competition & Practice Gym



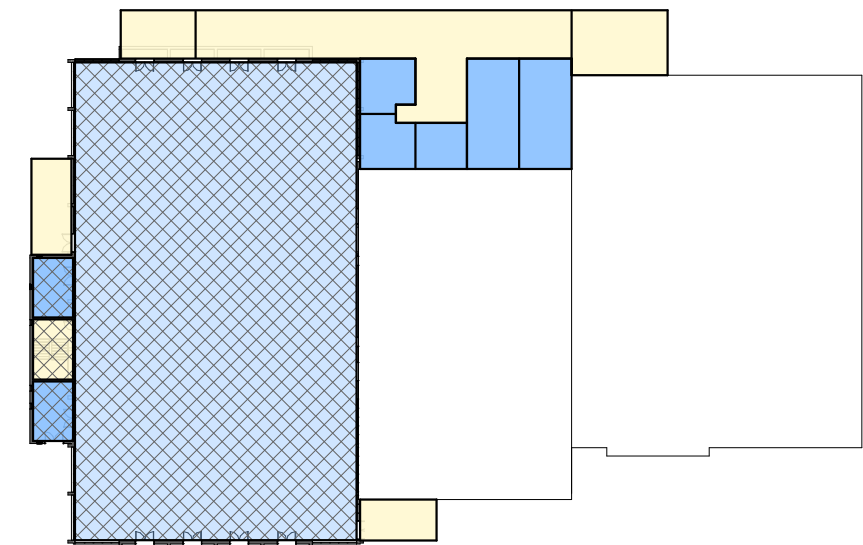
Basement



First Floor



Second Floor



Third Floor

CIRCULATION HEALTH AND PHYSICAL EDUCATION

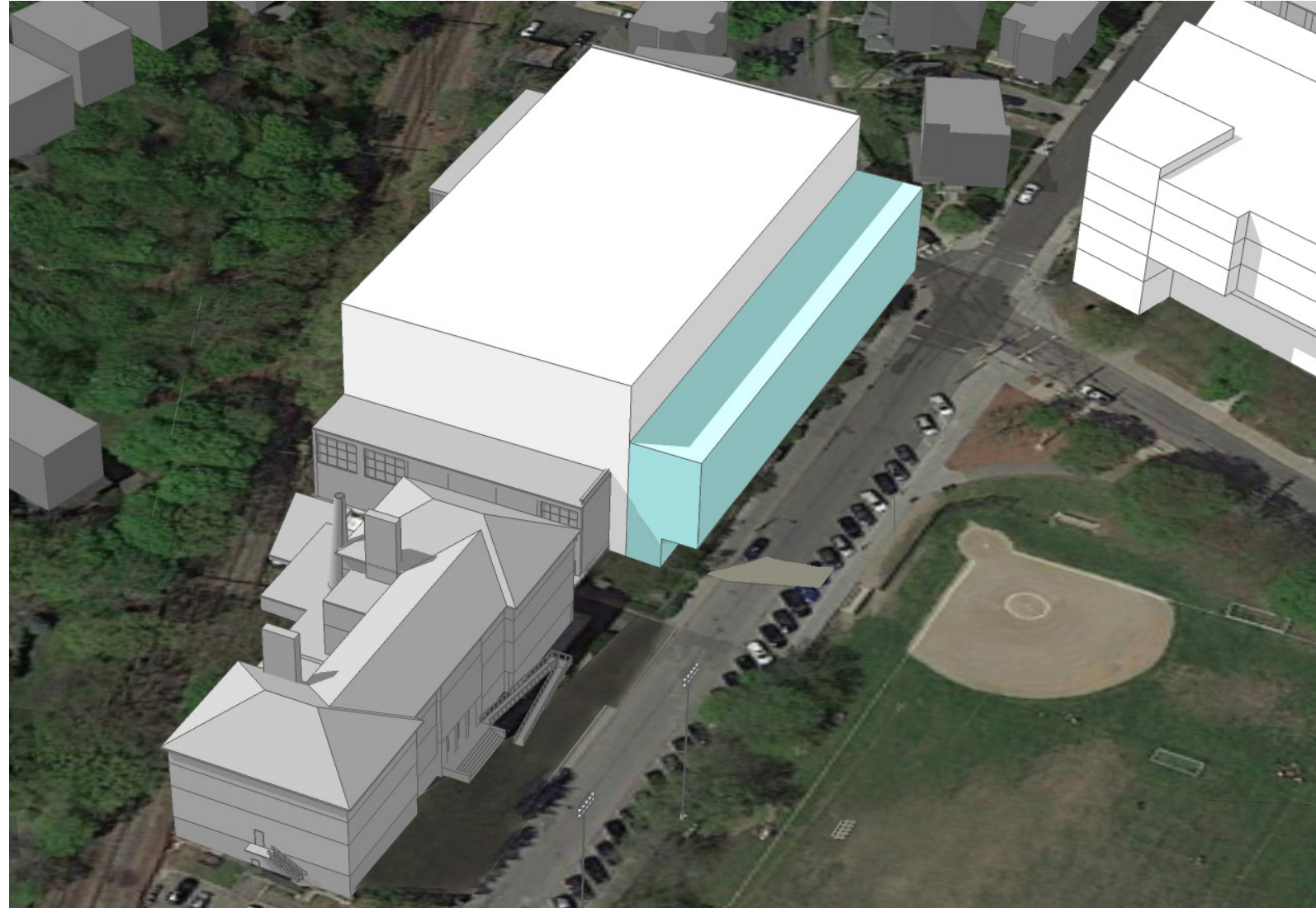
EXTENT OF DEMOLITION EXISTING - NO WORK RENOVATION



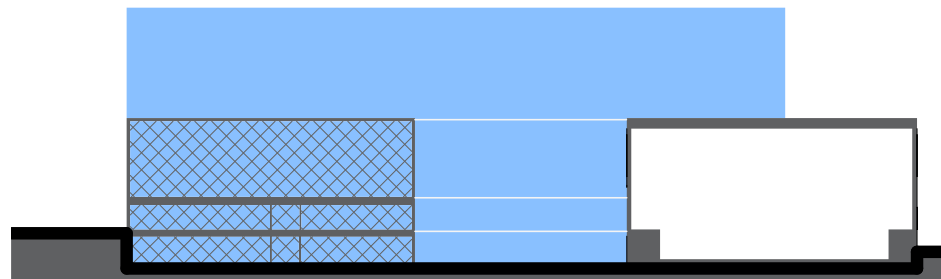
# OPTION 3

## Brookline High School Education Plan



### 3. Tappan Gym - Education Plan with Field House



Tappan Gym Massing



Tappan Gym Section

 CIRCULATION  HEALTH AND PHYSICAL EDUCATION

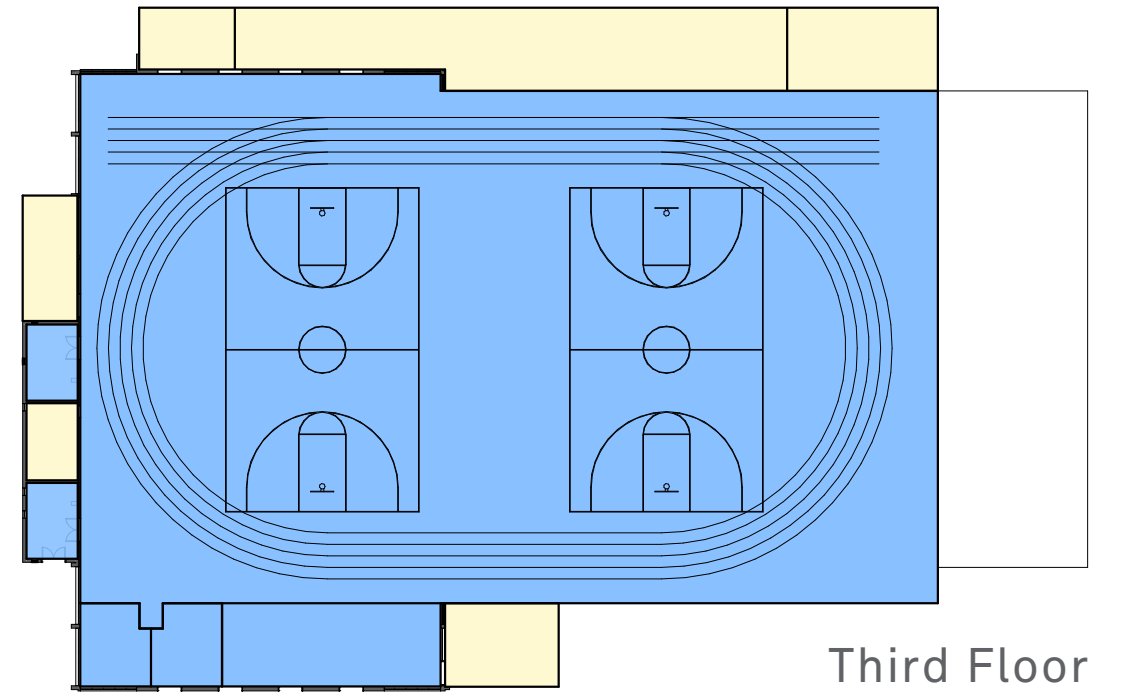
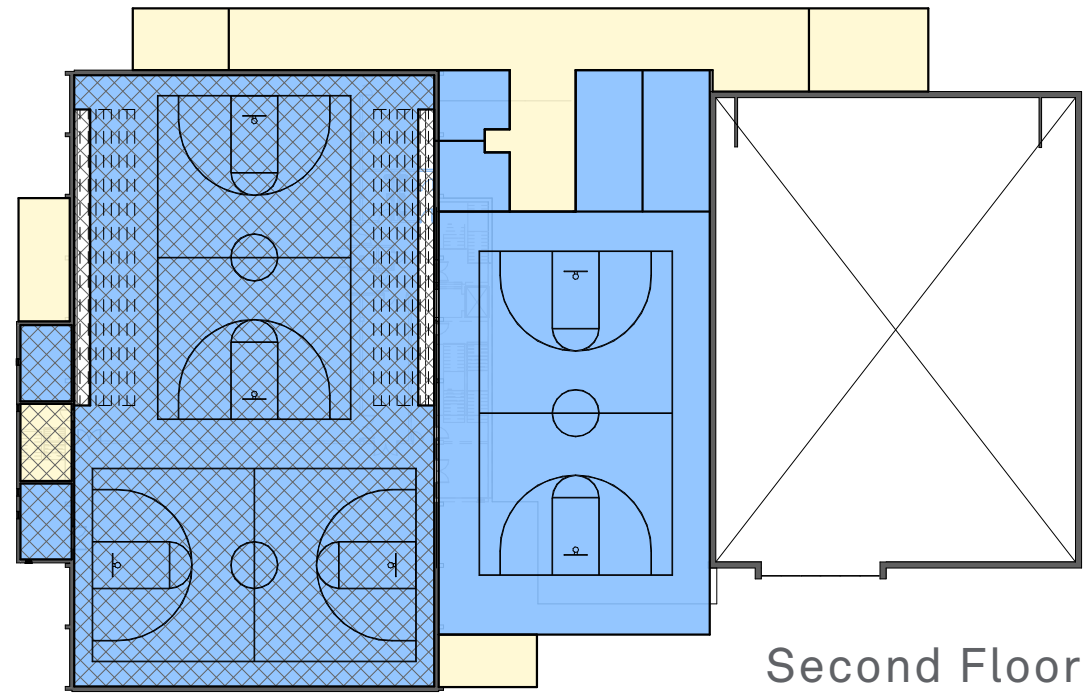
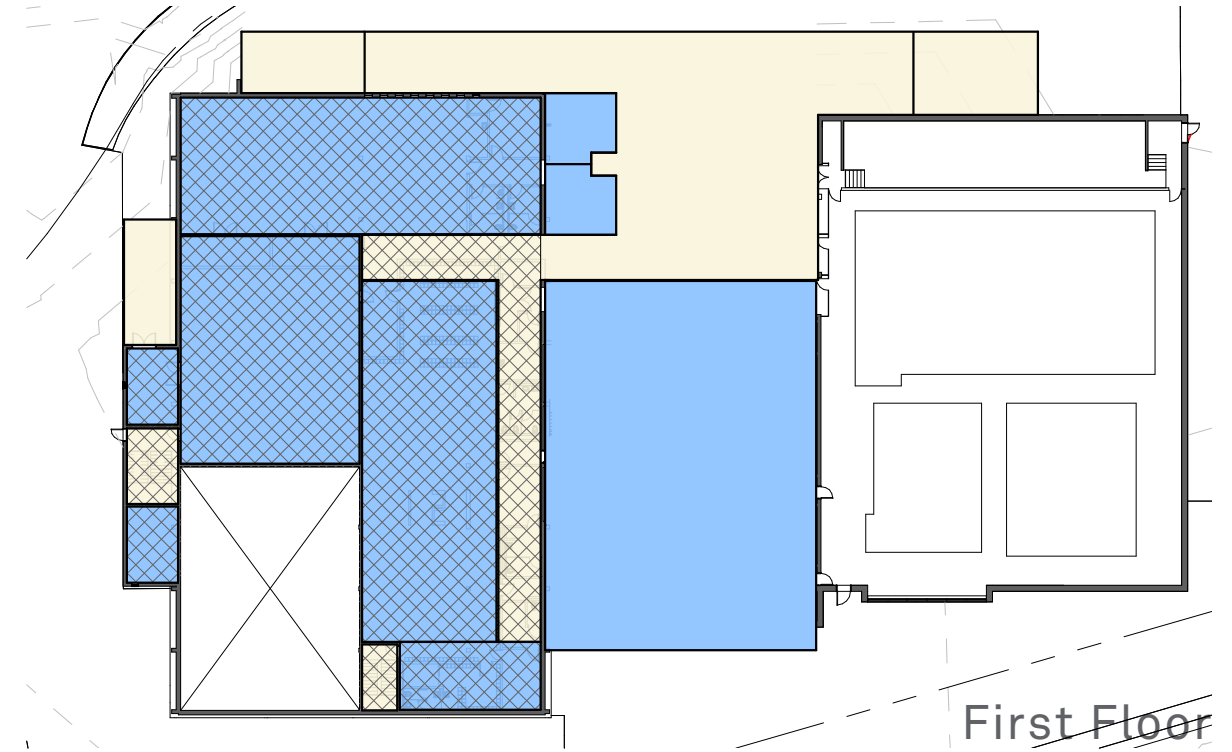
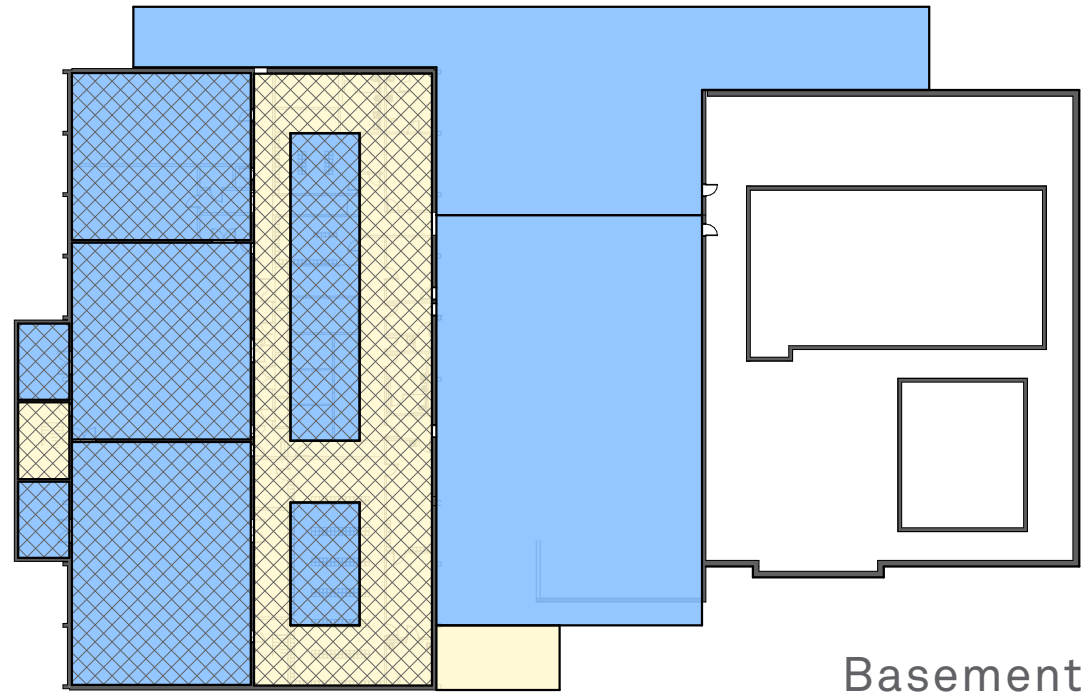
 EXTENT OF DEMOLITION  EXISTING - NO WORK  RENOVATION



# OPTION 3

## Brookline High School Education Plan

### 3. Tappan Gym - Education Plan with Field House



CIRCULATION HEALTH AND PHYSICAL EDUCATION

EXTENT OF DEMOLITION EXISTING - NO WORK RENOVATION



# Program Priorities

	Option 1	Option 2	Option 3	Option 4	Option 4	Option 4
	Enrollment Accommodation	MA State High School Standards	Brookline BHS Education Plan	Stand-alone Cypress Building	Main Building Renovate Science	Main Building New STEM Wing
<b>Core Academics</b>						
<b>Classrooms</b>						
Existing	62	38	40		65	56
New Classrooms	30	57 New	58	26 New	5	14
<b>Science Classrooms</b>						
New Science	24	24 New	24 New	6 New		18 New
Renovate Science					18	
<b>Special Education</b>						
Learning Centers	8	12	13	6 New	Existing to Remain	Existing to Remain
OT/PT	1 New	1 New	1 New	1 New		



# Program Priorities

	Option 1	Option 2	Option 3	Option 4	Option 4	Option 4
	Enrollment Accommodation	MA State High School Standards	Brookline BHS Education Plan	Stand-alone Cypress Building	Main BHS Renovate Science	Main BHS New STEM Wing
<b>Collaborative Learning</b>						
Small Group Rooms		16 New	34 New	1 New		
Maker-Spaces	1 New	2 New	4 New	1 New	Existing to Remain	2 New
Collab.Learning Common	Existing to Remain	4 New	11 New	5 New	MLK Room to Remain	2 New
<b>Library</b>	Relocate Reno/Expand	New & Expanded	New & Expanded	1 New Satellite	Existing to Remain	Existing to Remain
<b>Cafeteria</b>	Reno/Expand Existing	Reno/Expand Existing	New & Expanded	1 New Satellite	Existing to Remain	Existing to Remain
<b>Career Ed. Technology</b>	New Culinary Arts at BHS	New Culinary Arts at BHS	New Culinary Arts at BHS	Culinary Arts at BHS	Existing to Remain	New Culinary Arts at BHS
<b>OPTIONAL Project</b>	Existing UAB to Remain	Renovations at UAB	Renovations & Expand at UAB	Existing UAB to Remain	Existing UAB to Remain	Existing UAB to Remain



# Program Priorities

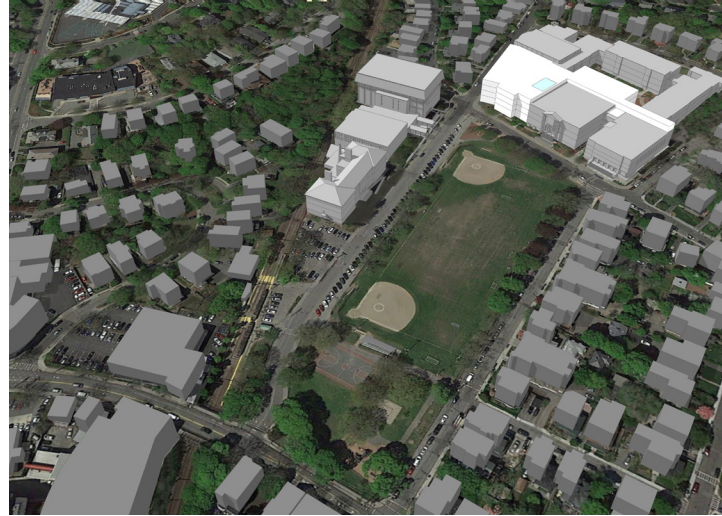
	Option 1	Option 2	Option 3	Option 4	Option 4	Option 4
	Enrollment Accommodation	MA State High School Standards	Brookline BHS Education Plan	Stand-alone Cypress Building	Main BHS Renovate Science	Main BHS New STEM Wing
<b>Performing/ Visual Arts</b>						
Music & Perform Space	New Black Box	New Black Box and White Box	New Black Box, White Box and 400 seat Theater	1 New	Existing to Remain	Existing to Remain
Ensemble & Music Practice	New Chorus	New Band and Chorus	New Expanded Band & Chorus	3 New		
Arts Studios	New at BHS	New at BHS	New at BHS	1 New	Existing to Remain	Existing to Remain
<b>OPTIONAL Project</b>	Existing UAB to Remain	Renovations at UAB	Renovations & Expand at UAB	and at UAB to Remain	Existing UAB to Remain	Existing UAB to Remain
<b>Physical Ed. Facilities</b>						
Schluntz Gym (Competition)	Existing to Remain	Replace at Tappan	Replace at Tappan	Existing to Remain	Existing to Remain	Existing to Remain
Health/Fitness	Existing to Remain	2. Tappan Moderate Renovation	3. Tappan Renovation Expansion with Field House & Competition Gym	2 New Health Classrooms	Existing to Remain	Existing to Remain
Tappan Facility	Existing to Remain	Expansion with Competition Gym		Existing to Remain	Existing to Remain	Existing to Remain
<b>OPTIONAL Project</b>	1. Renovate Tappan Gym			1. Renovate Tappan Gym		



# Option 1, 2 & 3

## Summary and Cost

### Option 1



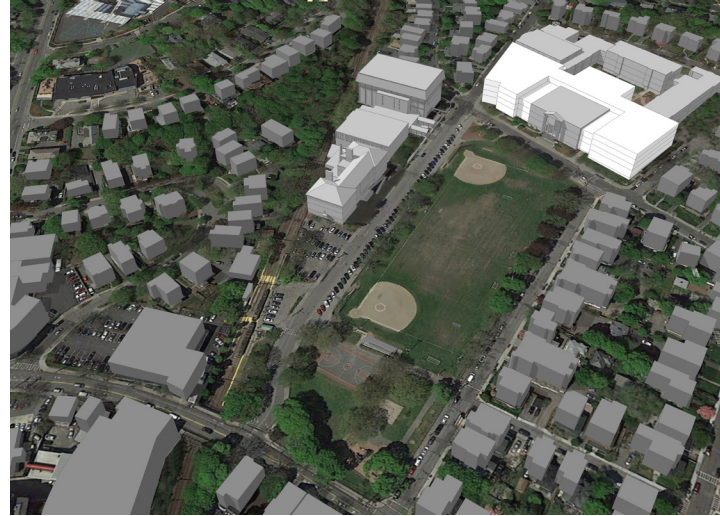
Existing to Remain at BHS  
**294,310 sf**

New Construction at BHS  
**165,000 sf**

---

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

### Option 2



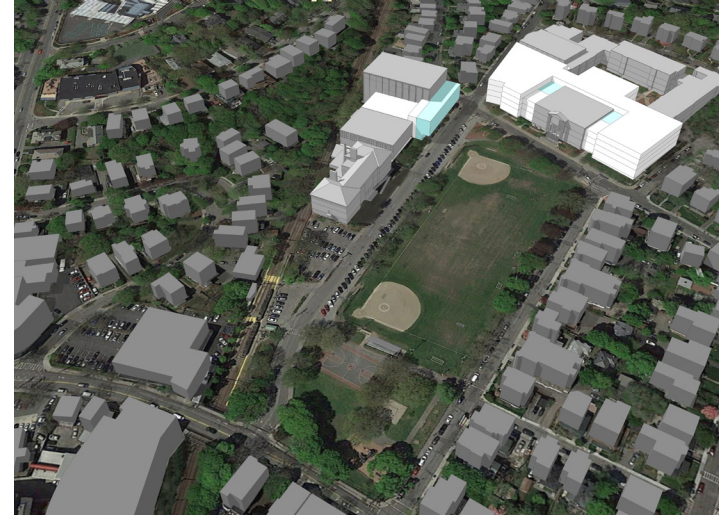
Existing to Remain at BHS  
**242,280 sf**

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

---

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

### Option 2 with Tappan



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

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

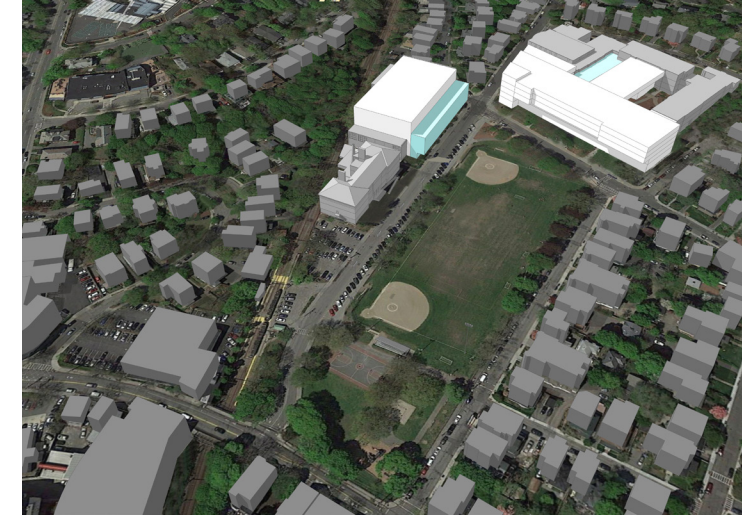
Renovation at Tappan Gym  
**60,330 sf**

New Construction at Tappan Gym  
**49,300 sf**

---

Project Cost  
**\$271,178,244**

### Option 3



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

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

Renovation at Tappan Gym  
**60,130 sf**

New Construction at Tappan Gym  
**64,050 sf**

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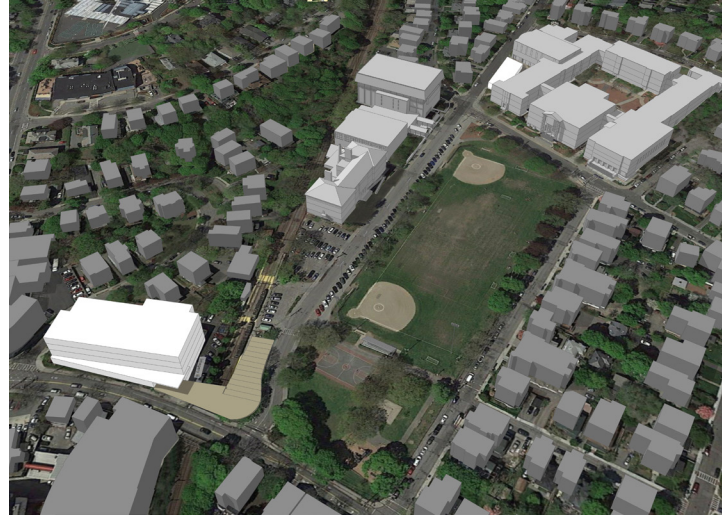
Project Cost  
**\$348,352,647**



# Option 4

## Summary and Cost

### Option 4A



Renovate Existing BHS Science  
35,500 sf

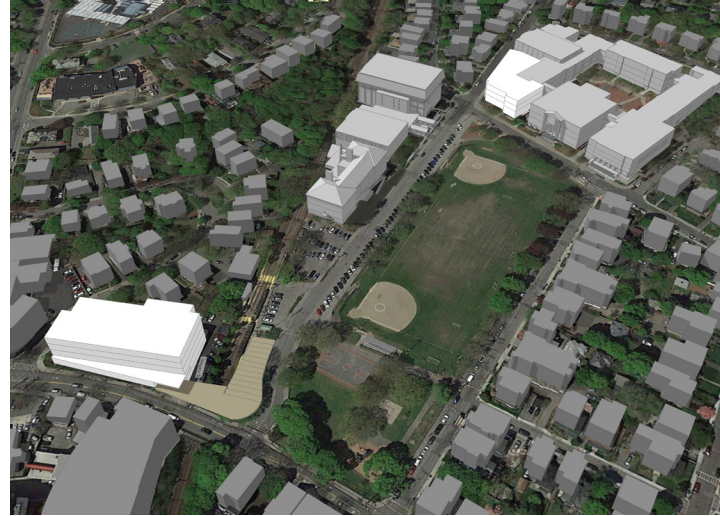
New Construction at BHS  
7,500 sf

New Construction Cypress Building  
109,810 sf

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Project Cost  
**\$105,342,903**

### Option 4B



Renovate Existing BHS Science into Classrooms  
36,500 sf

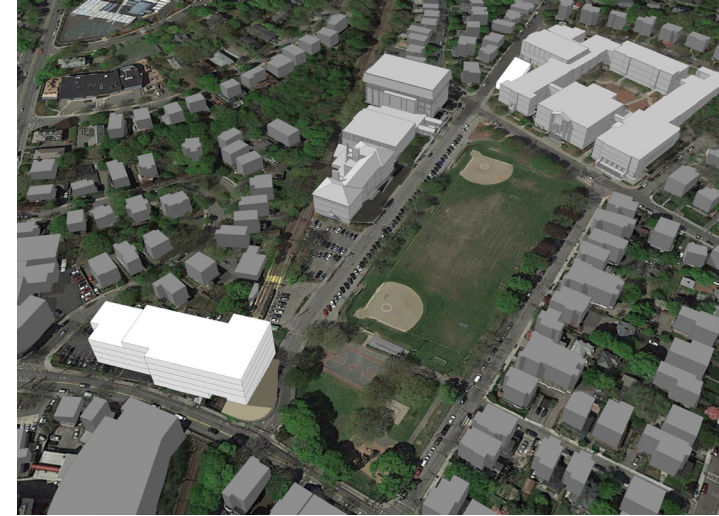
New Construction at BHS  
44,100 sf

New Construction Cypress Building  
109,810 sf

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Project Cost  
**\$131,117,378**

### Option 4C



Renovate Existing BHS Science  
35,500 sf

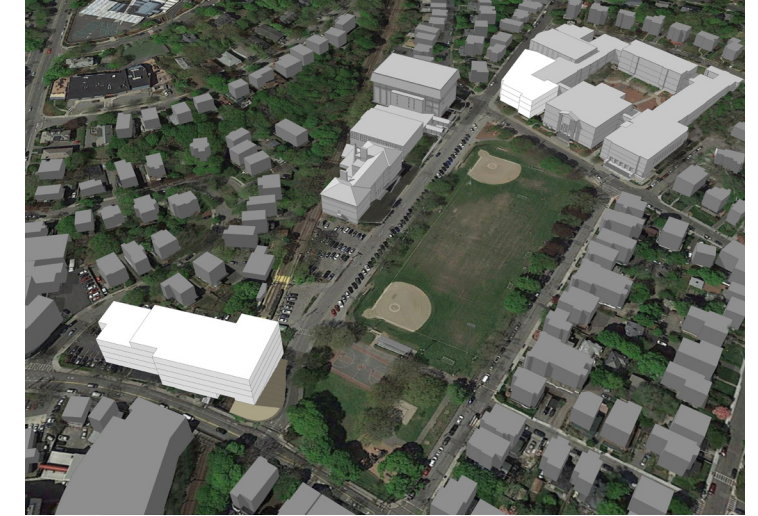
New Construction at BHS  
7,500 sf

New Construction Cypress Building over the MBTA  
112,700 sf

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Project Cost  
**\$110,838,332**

### Option 4D



Renovate Existing BHS Science into Classrooms  
36,500 sf

New Construction at BHS  
50,400 sf

New Construction Cypress Building over the MBTA  
112,700 sf

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Project Cost  
**\$136,612,807**



# OPTIONAL PROJECTS

## Tappan Gym Upgrades

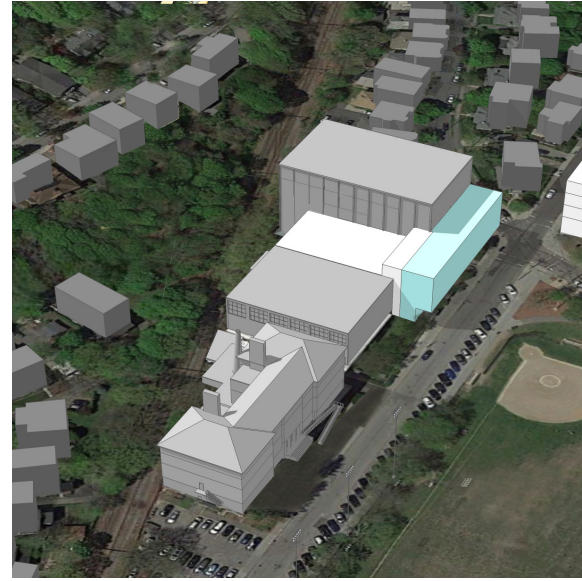
### 1. Minimal Renovations



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Project Cost  
**\$13,290,000**

### 2. Moderate Expansion with Competition & Practice Gym



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Project Cost  
**\$62,266,000**

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

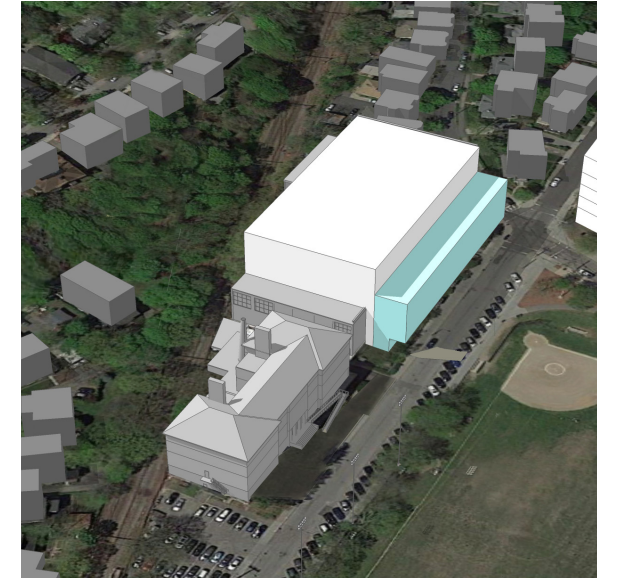
### 2.1 Min.Moderate Expansion with Practice Gym only



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Project Cost  
**\$52,706,000**

### 3. Education Plan with Field House



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Project Cost  
**\$74,000,000**

Note: Option 3. Tappan Education Plan with Field House is included in the program, planning, and costs for the BHS OPTION 3. Education Plan



# OPTIONAL PROJECTS

## Cypress Park Field & Playground

### 1. Field & Playground Renovation



Project Cost  
\$13,335,500

### 2. Field & Playground Renovation with Greenough St. Re-alignment



Project Cost  
\$14,638,500

## Underground Parking

### 1. Typical Plan for Parking below Cypress Park



Project Cost  
 1-Level 100 cars = \$21,051,500  
 2-Levels 200 cars = \$33,769,600  
 3-Levels 300 cars = \$46,806,000



Site Section: Underground Parking Structure Below Cypress Park - Field @ +/- 100 Cars per Level



