

# Somerville High School

Community Forum #2



Symmes Maini & McKee  
Associates

SMMA

March 22, 2016

# Somerville High School

## Tonight's Agenda:

- Introductions & MSBA Process Overview
- History of Construction on the HS Site
- Education Plan & the PDP Report Overview
- Spaces for 21<sup>st</sup> Century Education
- Design Concept Alternatives
- Timeline & Next Steps

Medford

Street

Central

Church St

Hill

Remains of  
Revolutionary  
Breastwork

School

Central

B



# Somerville Free High School - 1852



# The Latin High School - 1872



# Public Library- 1880



# English High School - 1895



# Additions to English High School – est. 1914



# Somerville High School - 1929



# Somerville High School - 1957



# Somerville High School – 1986 to 2015



# Field and Venue Inventory

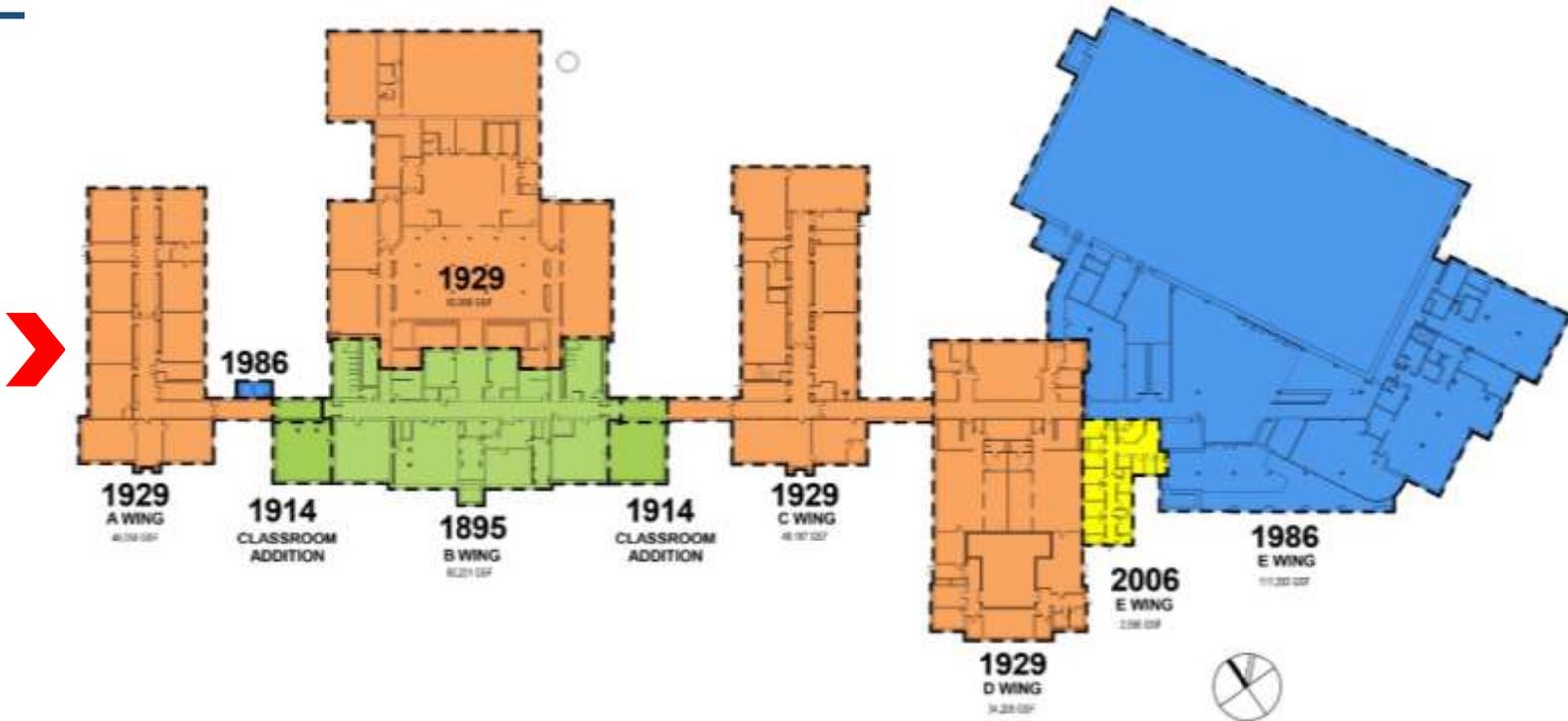


Somerville High School Field House		Blessing of the Bay Boathouse	
Veterans Memorial Hockey Rink		Crew	
Conway Park		Kennedy School	
Fall: Football Practice		J.V. Basketball	
Spring: Little League		Argenziano School Field	
Dilboy Stadium		Girl's Soccer Practice	
Fall: Football		Ultimate Frisbee	
Spring: Track		East Somerville Community School	
Trum Field		Freshman Basketball	
Spring: Baseball & Softball		Soccer Practice	
Foss Park (DCR)		Capuano Early Education center	
Fall: Soccer Practice		Soccer Practice	
Spring: Softball, Ultimate Frisbee		Draw Seven	
		Soccer Field	



## 4. EVALUATION OF EXISTING CONDITIONS

- 4.1 Existing Site Conditions
- 4.2 Existing Building Conditions
- 4.3 Existing Structural System
- 4.4 Existing Fire Protection System
- 4.5 Existing Plumbing System
- 4.6 Mechanical System
- 4.7 Existing Electrical System
- 4.8 Existing Food Service Conditions
- 4.9 Hazardous Materials Report
- 4.10 Traffic Report
- 4.11 Geo-Environmental Report (Phase 1)
- 4.12 Preliminary Geotechnical Report
- 4.13 Site Environmental Noise Analysis
- 4.14 Code Compliance Consideration Report



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CDW CONSULTANTS, INC.  
CIVIL & ENVIRONMENTAL ENGINEERS

### HAZARDOUS MATERIALS SUMMARY REPORT

Somerville High School  
81 Highland Avenue  
Somerville, Massachusetts

Prepared for

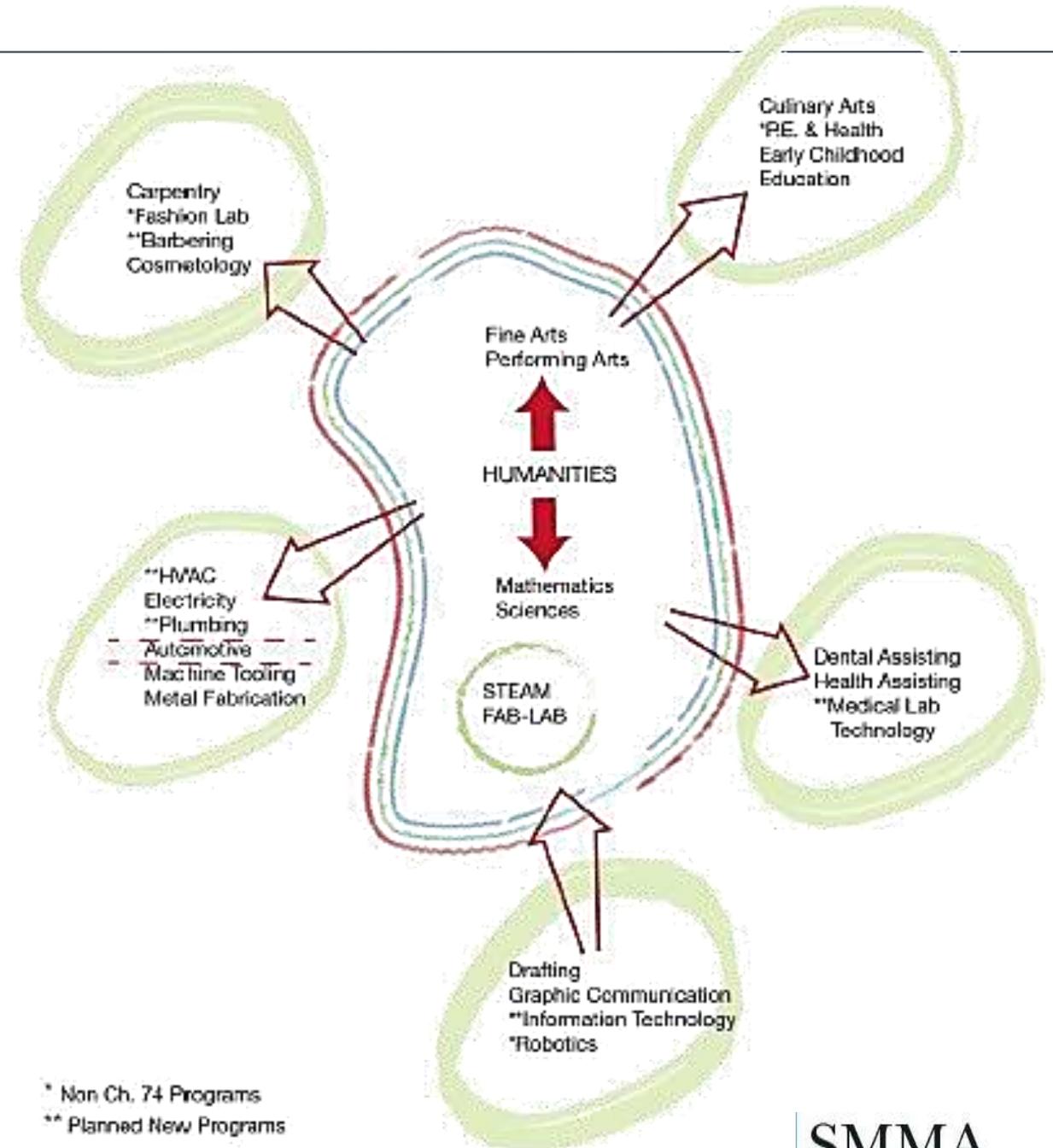
Symmes Maini & McKee  
1000 Massachusetts Avenue  
Cambridge, MA 02138

November 2015

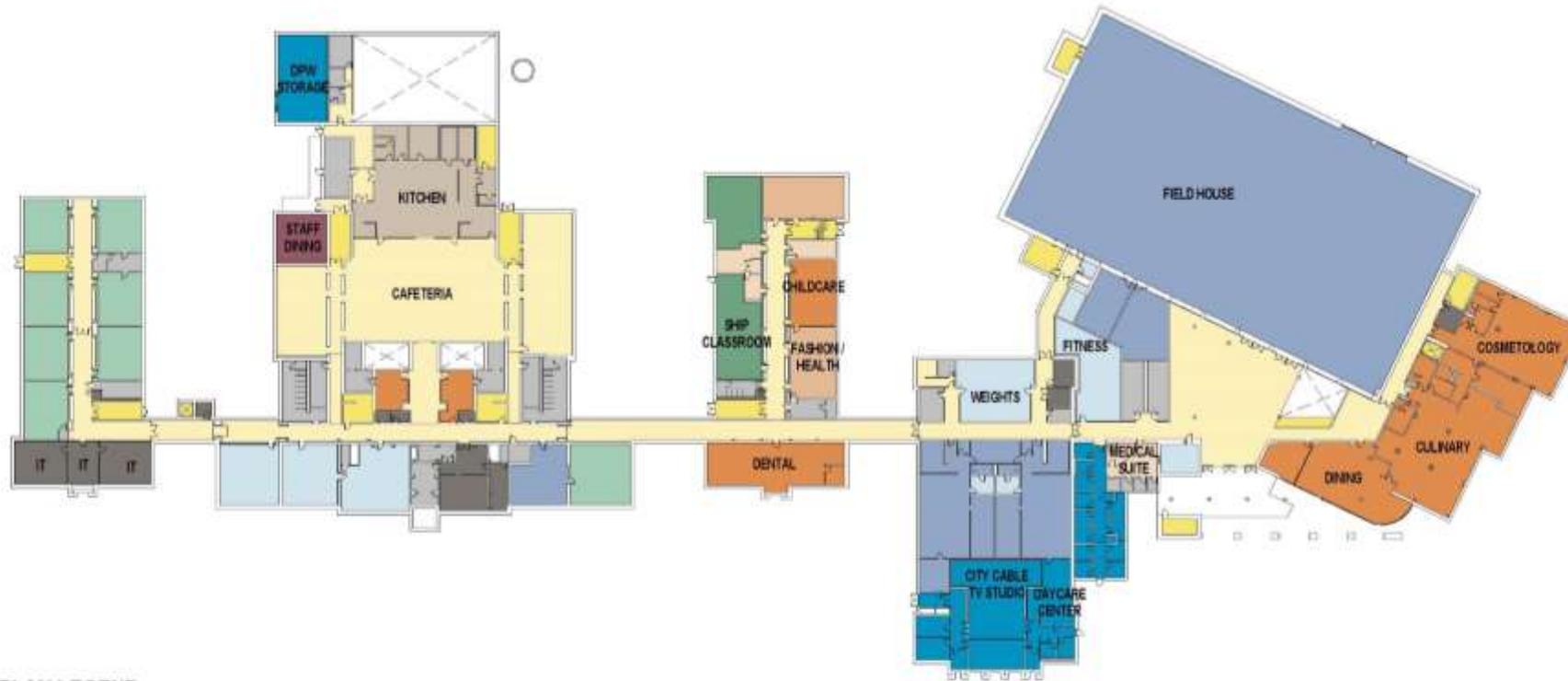
CDW Project # 1491.0

## 2. EDUCATIONAL PROGRAM DIAGRAM

- 2.11 Performing Arts Programs
- 2.12 Physical Education Programs
- 2.13 Special Education Programs
- 2.14 Vocations and Technology Programs
- 2.15 Narrative description of the types of educational activities. 
- 2.16 Transportation Policies
- 2.17 Functional and Spatial Relationships
- 2.18 Security and Visual Access Requirements



# Existing High School – 1<sup>st</sup> Floor Program Plan



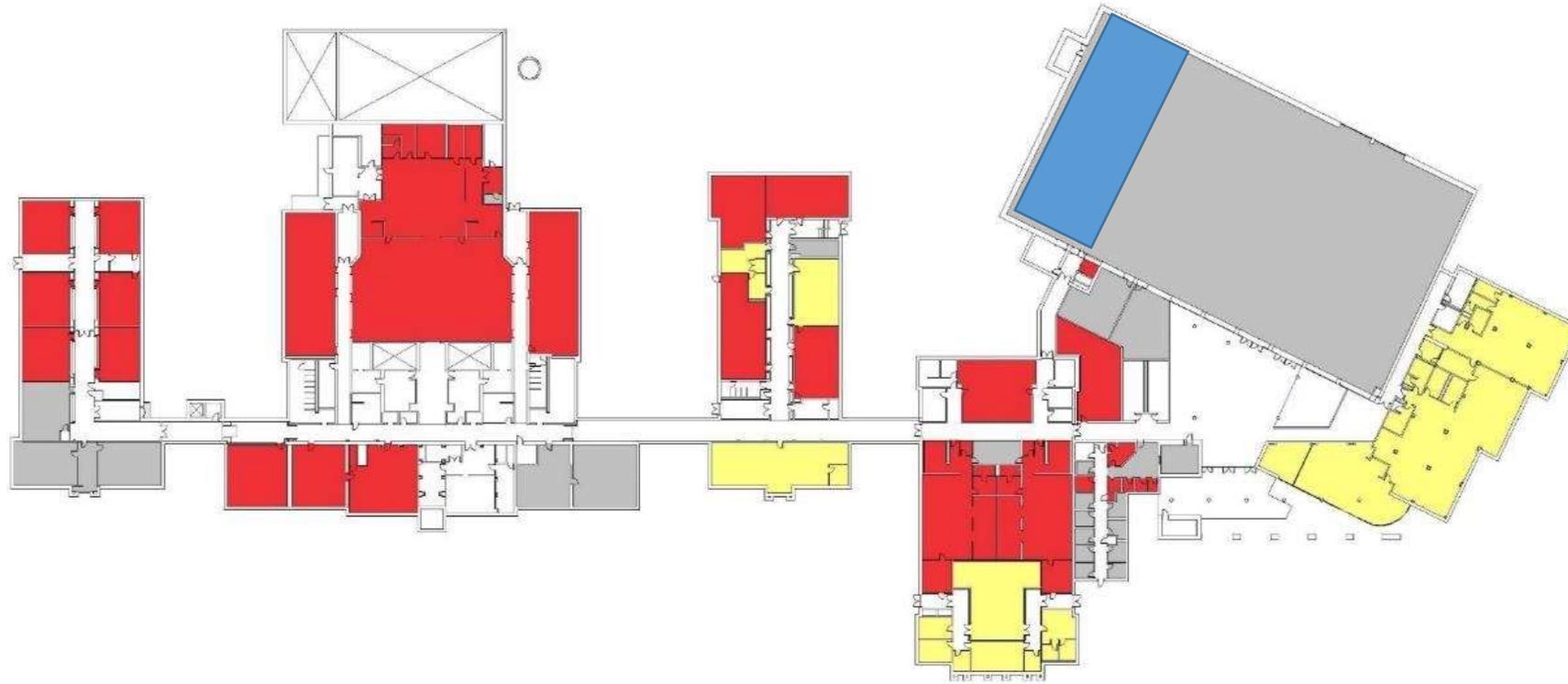
## PROGRAM PLAN LEGEND

 ADMINISTRATION / GUIDANCE / STUDENT SERVICES / NURSE	 HEALTH & FITNESS
 BUILDING EQUIPMENT	 KITCHEN / SERVERY
 CAFETERIA & CIRCULATION	 PHYSICAL EDUCATION & SPORT SUPPORT
 CHAPTER 74	 SPECIAL EDUCATION
 CLASSROOM & GENERAL EDUCATION SUPPORT	 TEACHER PLANNING & SUPPORT
 COMMUNITY USE	 VERTICAL CIRCULATION
 CUSTODIAL / MAINTENANCE / STORAGE	 VOCATIONAL & TECHNOLOGY

Somerville High School GSF	
LEVEL	AREA
SHOP LEVEL	45900 SF
1ST FLOOR	125420 SF
2ND FLOOR	89960 SF
3RD FLOOR	64080 SF
4TH FLOOR	44220 SF
TOTAL GSF	369570 SF

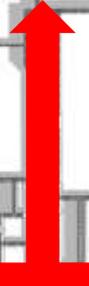
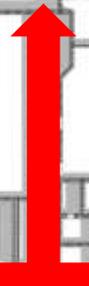
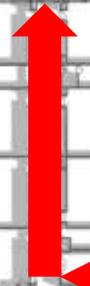
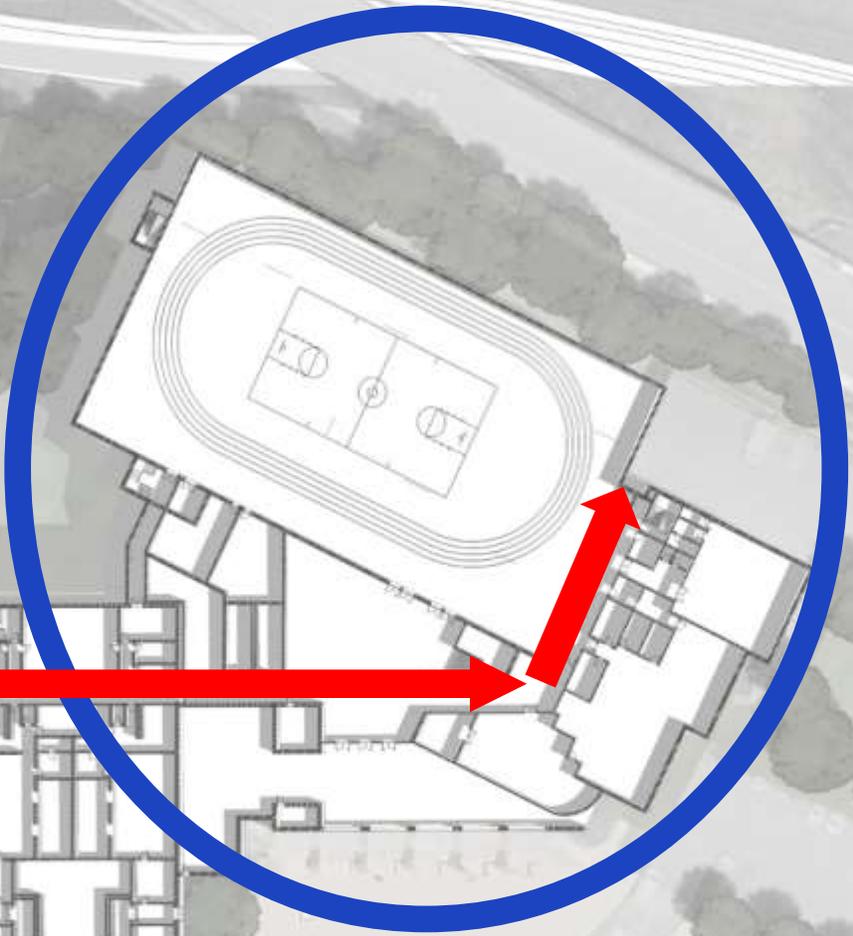
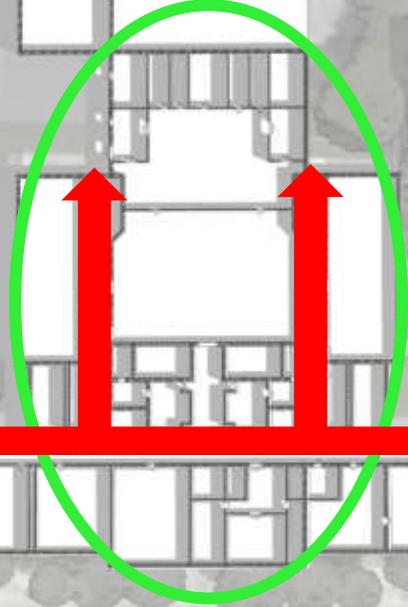
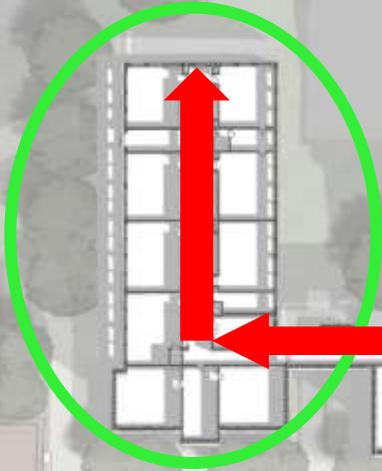
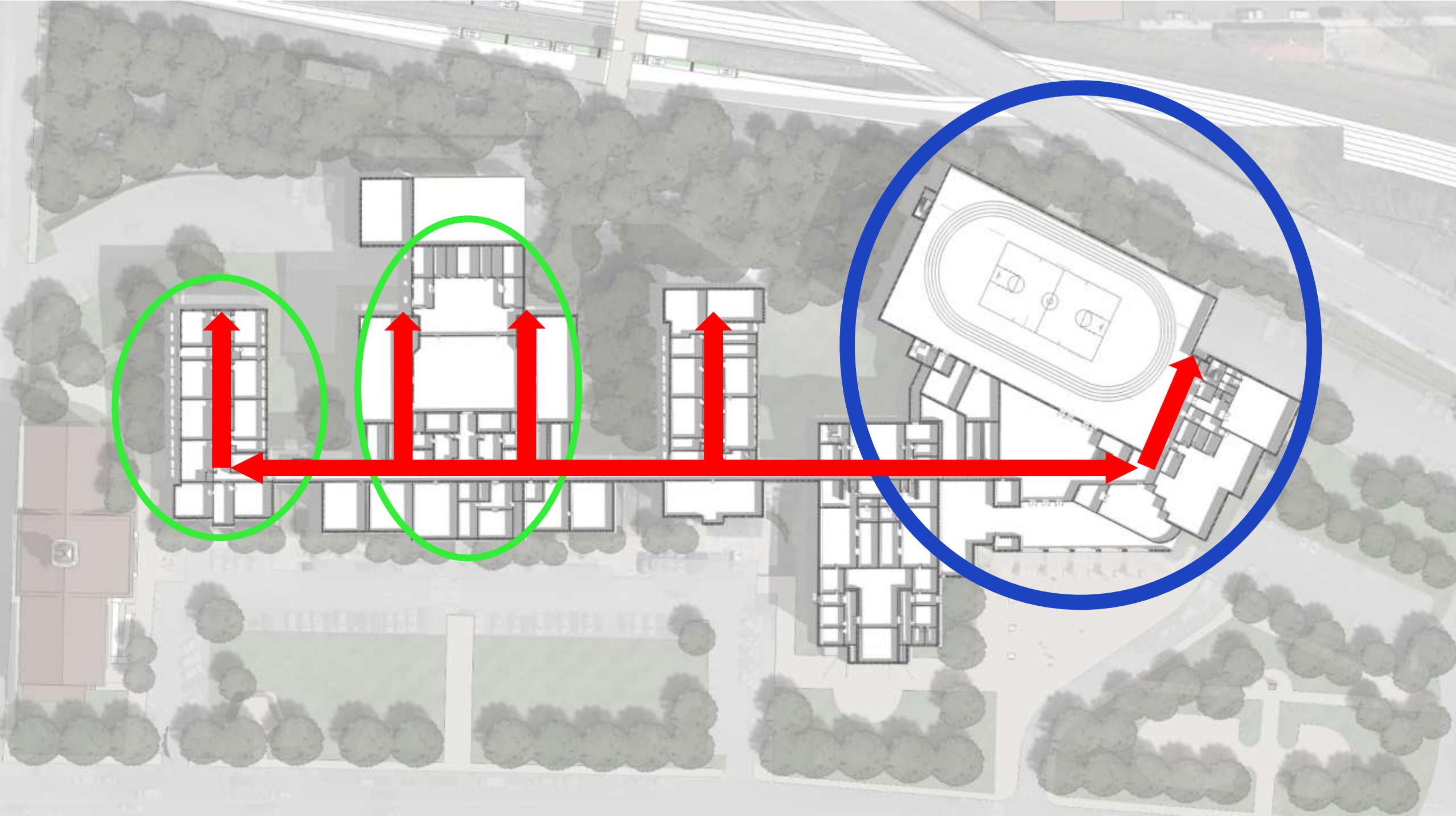


# Existing High School – MSBA Program Deficiency Plan



- Square Footage Meets MSBA Requirements
- Not Within a Typical MSBA High School Program
- 10% or More < MSBA Space Standards
- Not Part of MSBA Program

Somerville High School GSF	
LEVEL	AREA
SHOP LEVEL	50470 SF
RED PLANS	
1ST FLOOR	129100 SF
2ND FLOOR	90200 SF
3RD FLOOR	63710 SF
4TH FLOOR	55030 SF
TOTAL GSF	388520 SF

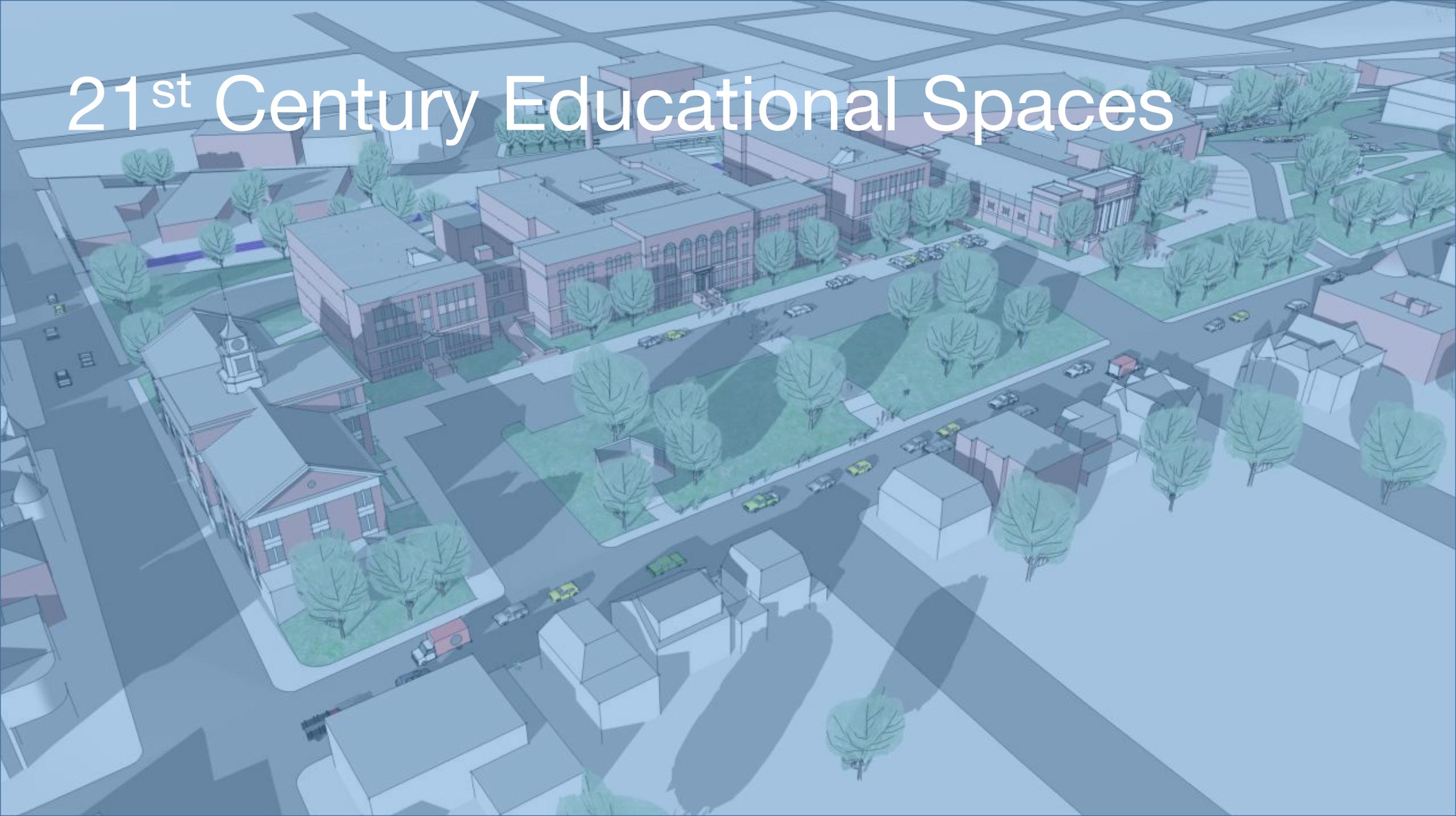


Project Tours:

# QUINCY COMPREHENSIVE HS



# 21<sup>st</sup> Century Educational Spaces



# 21<sup>st</sup> Century Teaching & Learning

## The 6 Rs

Reading      Rigor  
Writing      Relevance  
Arithmetic   Relationship

## The 4 Cs

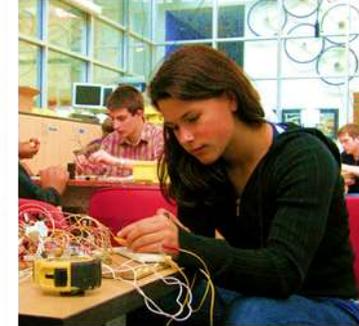
- Critical Thinking
- Communication
- Collaboration
- Creativity

*plus Citizenship*

## Head & Hand

## Growth Mindset

- Student-Centered
- Interdisciplinary
- Technology-Infused
- Community Connected
- Problem- and Project-Based
- Process and Product Oriented



# Educational Delivery

*Where are you now? Where do you want to be?*

Past / Present?

Goals

Teacher-Centric



Student-Centric

Passive Learning



Active Learning

Classrooms



Flexible Learning  
Environments

Conventional  
Technology



1:1 Technology  
Environments

Individual



Collaborative

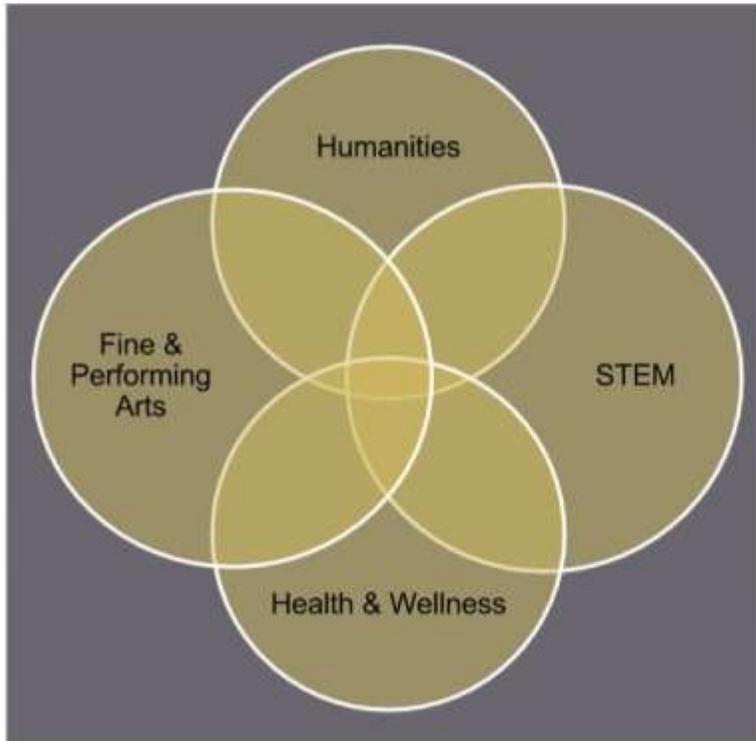
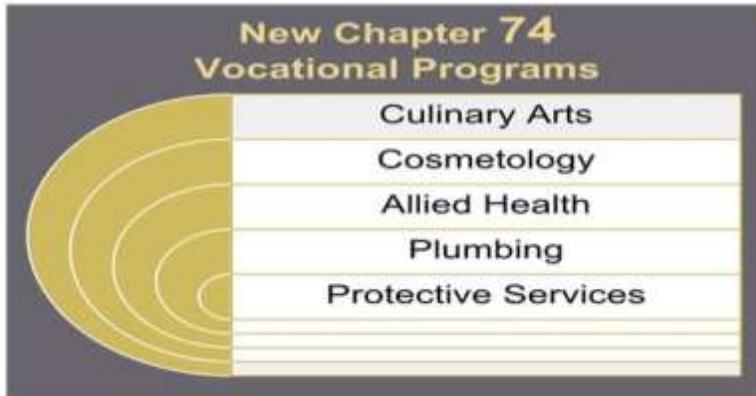
Subject-Based



Project-Based



# 21<sup>st</sup> Century Teaching & Learning



- Student-Centered
- Interdisciplinary
- Technology-Infused
- Community Connected
- Problem- and Project-Based
- Process and Product Oriented



# Somerville STEM Pathways

## STEM Pathways



**Biotechnology**



**Pre-Engineering**



**Manufacturing Technologies**



**Telecommunications and Fiber Optics**



**Robotics**



**Green and Renewable Energy  
Technologies**



HIGH  
SCHOOL

# *Transparency: Hands on Engaging Programs*

**Comprehensive High School:  
Visible & Personalized Learning**

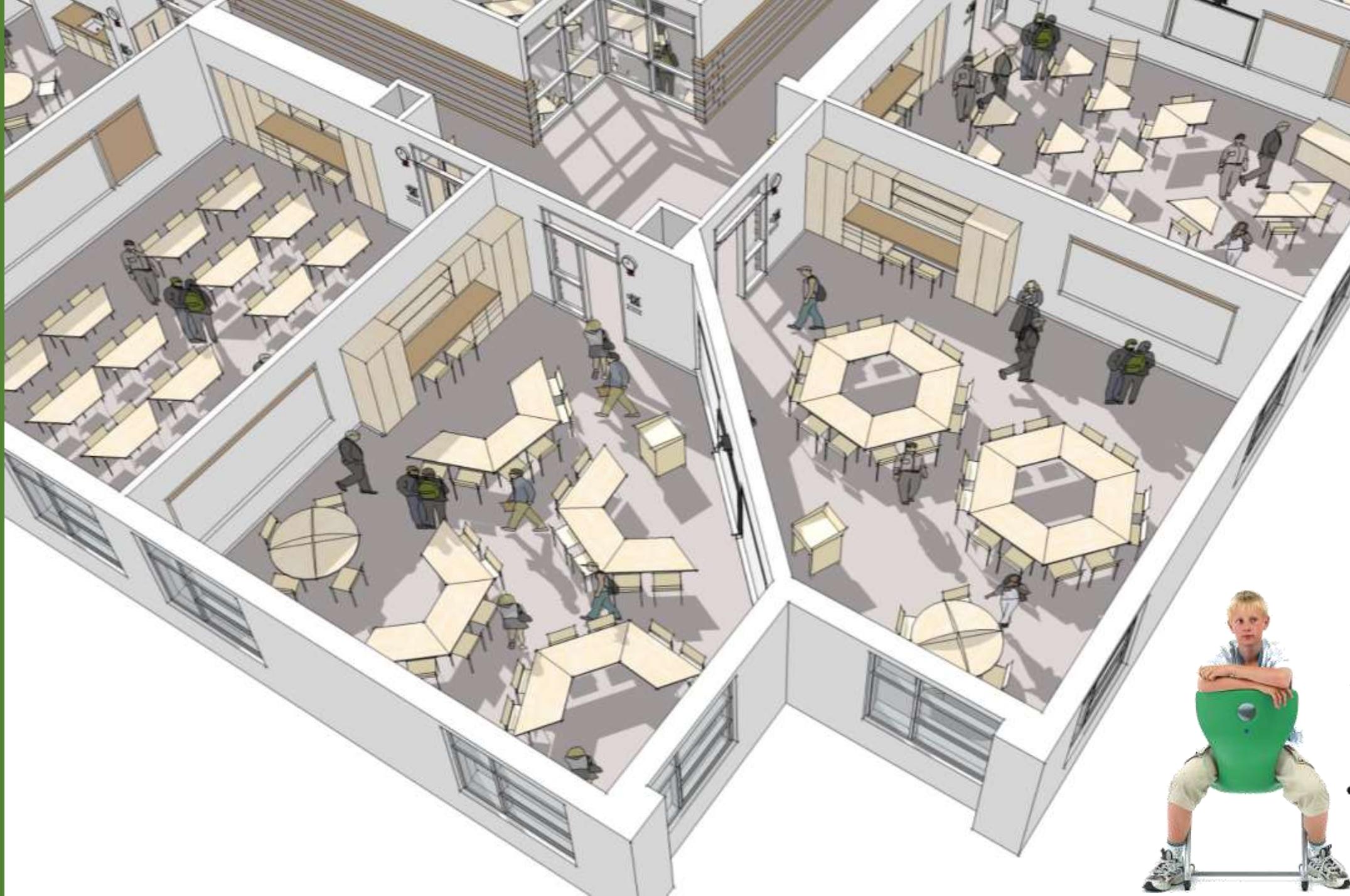
Maker Spaces

Maker School

Student Agency



HIGH  
SCHOOL



HIGH  
SCHOOL

900 – 950 square feet  
Flexible furniture and environment  
Capable of 1:1 Technology environment  
Student Centric



*Academic Classrooms:*

Design Partnership/Perkins Eastman

# *Sciences*

HIGH  
SCHOOL



# *Informal Gathering*

HIGH  
SCHOOL



HIGH  
SCHOOL

# *Student Dining / Cafeteria / Student Commons*



HIGH  
SCHOOL

# *Student Dining / Servery*



Healthy and Inviting Options

HIGH  
SCHOOL



*Media Center  
Learning Commons*

HIGH  
SCHOOL

# *Media Center Learning Commons*



# Auditoria and Arts



50% of student population or 750 max  
Multipurpose:  
Drama, Band, Choral & Orchestral

HIGH  
SCHOOL

# *Lecture Hall*



# Fine Arts Academy

*The Art of STEAM*



HIGH  
SCHOOL

# *Enrichment: Music*



1,500 SF  
Acoustically isolated  
Acoustically appropriate



HIGH  
SCHOOL

# *Enrichment: Art*

1,200 SF  
Multipurpose  
Appropriately daylit



HIGH  
SCHOOL

# *Special Education Life Skills*



HIGH  
SCHOOL

# *Gymnasium:*

12,000 – 18,000 SF  
Multipurpose  
Appropriately daylight



HIGH  
SCHOOL

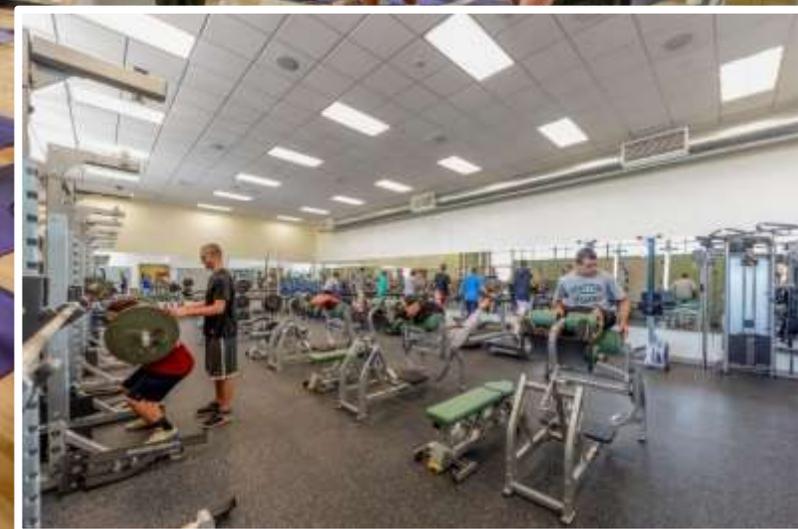
# *Gymnasium: Climbing Wall*



12,000 square feet  
Community Resource

HIGH  
SCHOOL

# *Alternative PE*



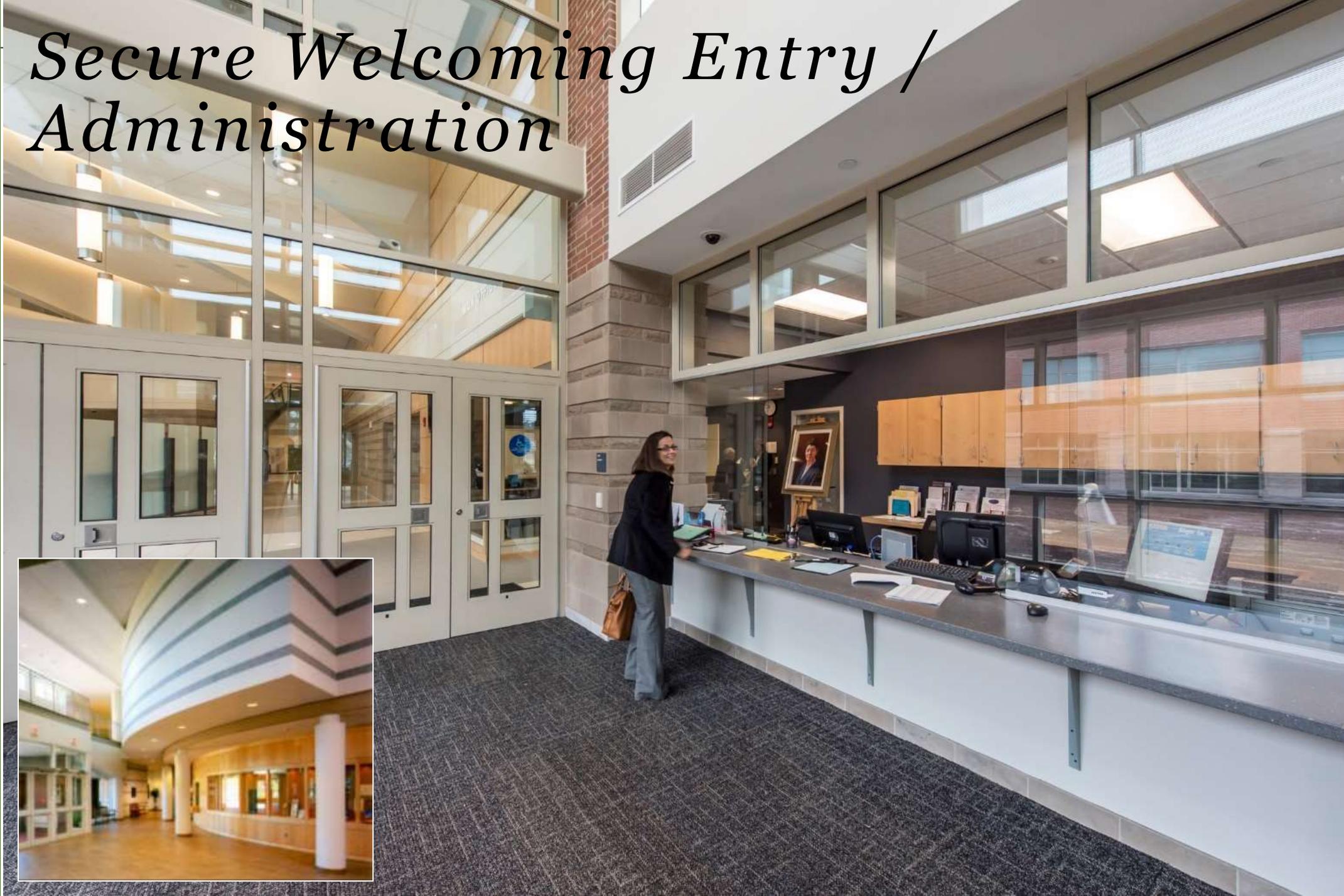
HIGH  
SCHOOL

# *Teacher Planning / Collaboration*



HIGH  
SCHOOL

# *Secure Welcoming Entry / Administration*





HIGH  
SCHOOL



*Outdoor Learning  
Environments:*

An aerial architectural rendering of a city street scene. The scene features a central street with several cars and a yellow taxi. On the left, there is a large, multi-story building with a prominent portico and a small tower. To the right, there are smaller buildings and a parking lot. The scene is populated with numerous green trees and a clear sky. The overall style is a clean, modern architectural visualization.

# PDP/PSR Alternatives Criteria and Preferred Schematic Design Selection Planning

# Somerville High School

## Existing Circulation



# Somerville High School

## Historic Assets



# Somerville High School

“Valuable” High Quality Facades



# Somerville High School

Cost Effective High School Assets



# Somerville High School

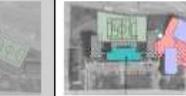
“Poor Quality” High School Assets



# Construction Alternates

Somerville High School  
Somerville Public Schools  
ALTERNATIVES CRITERIA MATRIX

## Preliminary Design Program [PDP] Alternatives

CRITERIA	Alt 0 Repairs & Code Compliance Only	Alt 1 Interior Full Renovation Only	Alt 2 New Auditorium Add/Reno	Alt 3 Renovated Auditorium Add/Reno	Alt 4 Concourse Plan Add/Reno	Alt 4A Campus Plan Add/Reno	Alt 4B East Side of Hill Infill Plan Add/Reno	Alt 5 New Const. at Existing HS Site	Alt 6 New Const at DPW Site / Franey Road
									
Students	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590
Total Gross Area (Square Feet)	360,000	360,000	376,285	392,575	394,575	394,575	376,285	364,290	364,290
Total Approximate Project Cost (Millions)	\$74	\$232	\$247	\$254	\$268	\$268	\$277	\$279	\$297
Approximate Construction Start	Apr-2018	Apr-2018	Apr-2018	Apr-2018	Apr-2018	Apr-2018	Apr-2018	Apr-2018	Apr-2020
Approximate Construction Duration	24 months	36 months	36 months	36 months	36 months	36 months	36 months	36 months	60 months

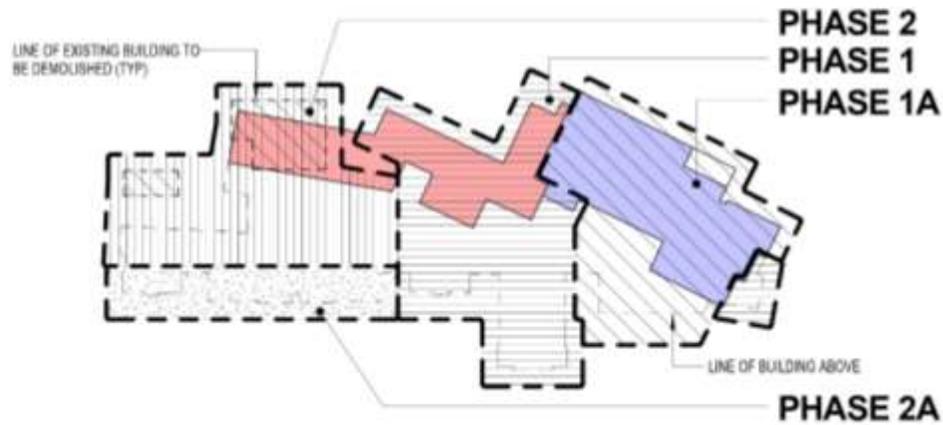
# Construction Alternates



## CONSTRUCTION LEGEND

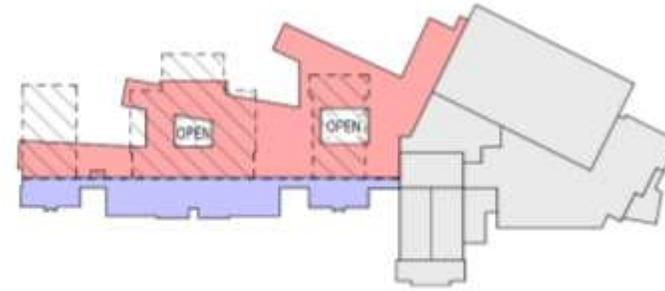
ADD RENO ROOF

1 LEVEL 1  
SCALE: 1" = 160'-0"

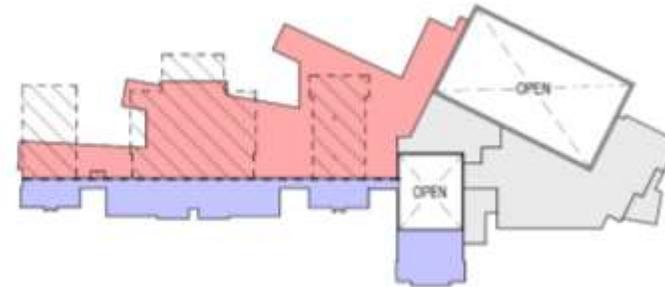


L LOWER LEVEL  
SCALE: 1" = 160'-0"

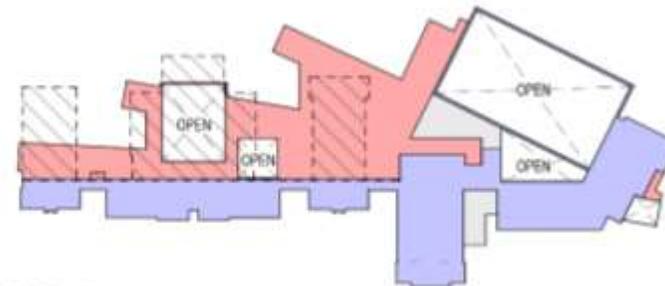
4 LEVEL 4  
SCALE: 1" = 160'-0"



3 LEVEL 3  
SCALE: 1" = 160'-0"



2 LEVEL 2  
SCALE: 1" = 160'-0"



## Ait 2

Alternative 2 – Addition /  
Renovation

Renovate 1986 CTE  
Wing & Southern  
Portions of 1895/1929  
Classrooms

New Auditorium &  
Cafeteria

Phased Construction



# Construction Alternates

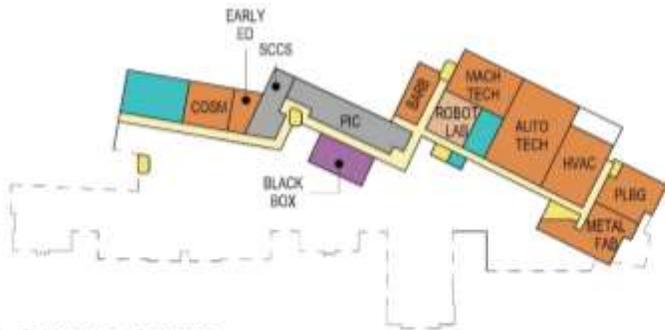


## PROGRAM AREAS

<span style="display:inline-block; width:10px; height:10px; background-color:orange; border:1px solid black;"></span> ADMIN	<span style="display:inline-block; width:10px; height:10px; background-color:yellow; border:1px solid black;"></span> CIRCULATION	<span style="display:inline-block; width:10px; height:10px; background-color:lightblue; border:1px solid black;"></span> NWFC	<span style="display:inline-block; width:10px; height:10px; background-color:green; border:1px solid black;"></span> SPED
<span style="display:inline-block; width:10px; height:10px; background-color:purple; border:1px solid black;"></span> ARTS	<span style="display:inline-block; width:10px; height:10px; background-color:lightgreen; border:1px solid black;"></span> CR	<span style="display:inline-block; width:10px; height:10px; background-color:grey; border:1px solid black;"></span> OFF-SITE AUXILIARY	<span style="display:inline-block; width:10px; height:10px; background-color:yellow; border:1px solid black;"></span> STAIR/ELEV
<span style="display:inline-block; width:10px; height:10px; background-color:blue; border:1px solid black;"></span> AUDITORIUM/DRAMA	<span style="display:inline-block; width:10px; height:10px; background-color:blue; border:1px solid black;"></span> HEALTH/PE	<span style="display:inline-block; width:10px; height:10px; background-color:white; border:1px solid black;"></span> ROOF	<span style="display:inline-block; width:10px; height:10px; background-color:teal; border:1px solid black;"></span> SUPPORT
<span style="display:inline-block; width:10px; height:10px; background-color:orange; border:1px solid black;"></span> CH 74	<span style="display:inline-block; width:10px; height:10px; background-color:red; border:1px solid black;"></span> MEDIA CENTER	<span style="display:inline-block; width:10px; height:10px; background-color:olive; border:1px solid black;"></span> SCIENCE	<span style="display:inline-block; width:10px; height:10px; background-color:orange; border:1px solid black;"></span> TECH

## 1 LEVEL 1

SCALE: 1" = 160'-0"

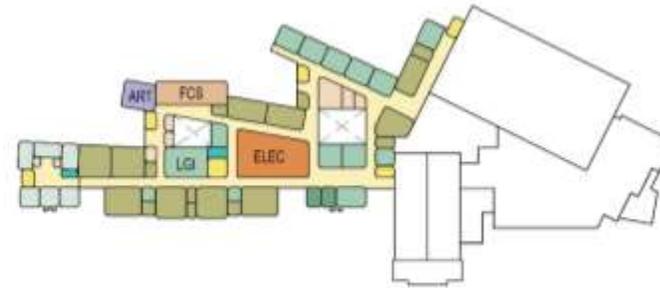


## L LOWER LEVEL

SCALE: 1" = 160'-0"

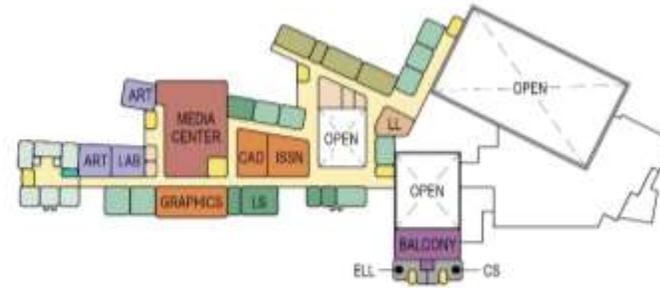
## 4 LEVEL 4

SCALE: 1" = 160'-0"



## 3 LEVEL 3

SCALE: 1" = 160'-0"



## 2 LEVEL 2

SCALE: 1" = 160'-0"



# Ait 2

## Alternative 2 – Addition / Renovation

Renovate 1986 CTE Wing & Southern Portions of 1895/1929 Classrooms

New Auditorium & Cafeteria

Phased Construction



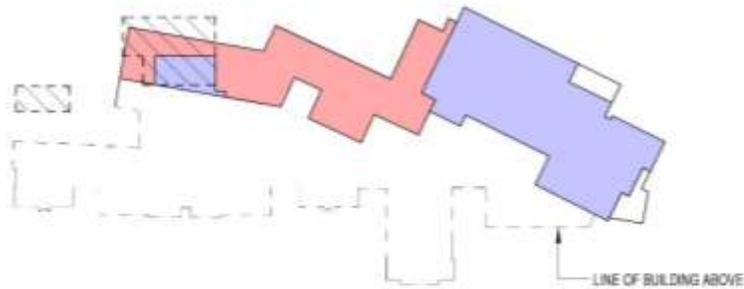
# Construction Alternates



## CONSTRUCTION LEGEND

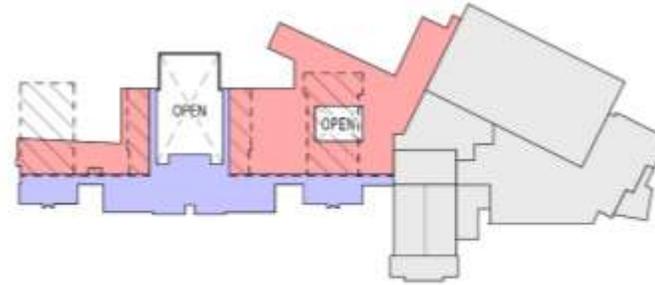
ADD RENO ROOF

1 LEVEL 1  
SCALE: 1" = 160'-0"



L LOWER LEVEL  
SCALE: 1" = 160'-0"

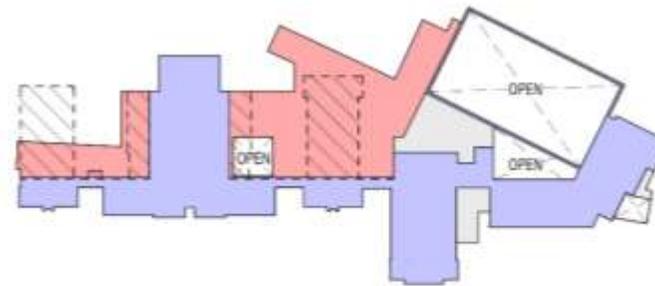
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SCALE: 1" = 160'-0"



3 LEVEL 3  
SCALE: 1" = 160'-0"



2 LEVEL 2  
SCALE: 1" = 160'-0"



## Ait 3

Alternative 3 – Addition / Renovation

Renovate 1986 CTE Wing & Southern Portions of 1895/1929 Classrooms

Renovate Auditorium

New Cafeteria

Phased Construction



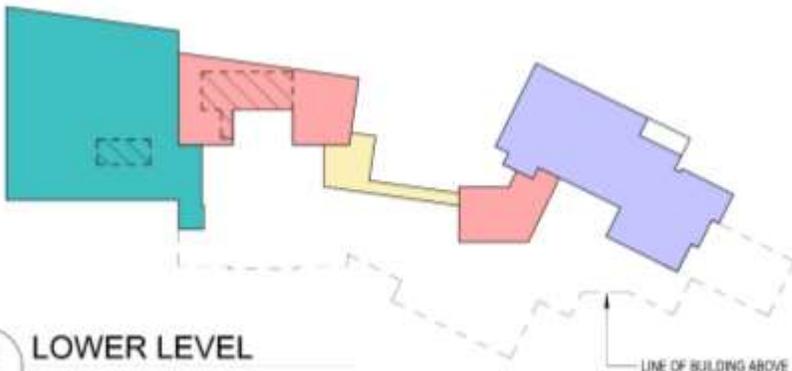
# Construction Alternates



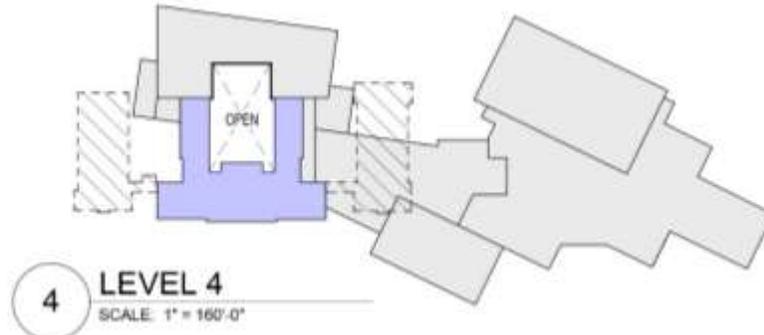
## CONSTRUCTION LEGEND

■ ADD   
 ■ FIELD   
 ■ MAIN STREET   
 ■ PARKING   
 ■ RENO   
 ■ ROOF

1 LEVEL 1  
SCALE: 1" = 160'-0"



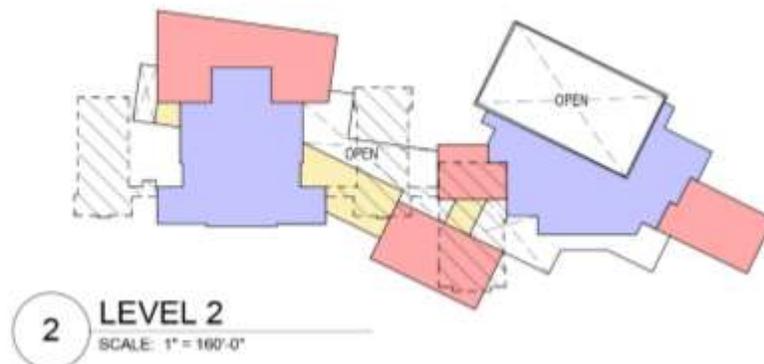
5 LOWER LEVEL  
SCALE: 1" = 160'-0"



4 LEVEL 4  
SCALE: 1" = 160'-0"



3 LEVEL 3  
SCALE: 1" = 160'-0"



2 LEVEL 2  
SCALE: 1" = 160'-0"

## Ait 4

Alternative 4 – Addition / Renovation

### Concourse Approach

Enclosed / Open Central Circulation and Activity Space – Incorporates Cafeteria

Renovate 1986 CTE Wing & 1895/1929 B Wing

Renovate Auditorium

Phased Construction



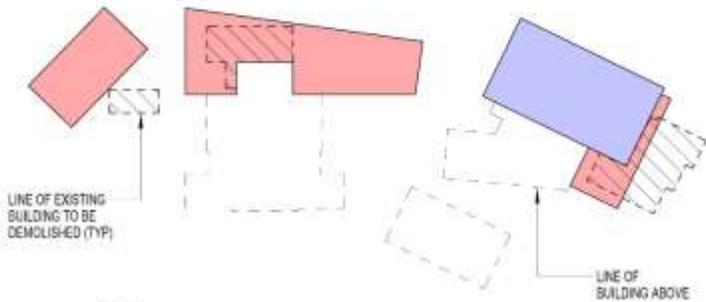
# Construction Alternates



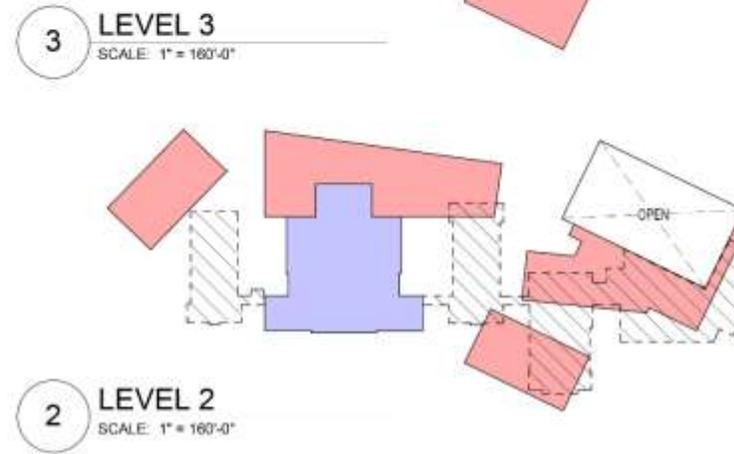
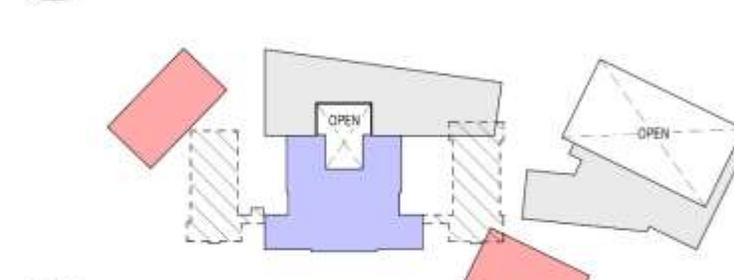
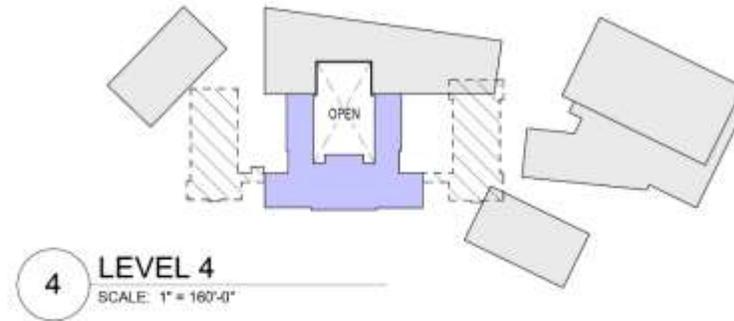
## CONSTRUCTION LEGEND

ADD      FIELD      RENO      ROOF

### 1 LEVEL 1 SCALE: 1" = 160'-0"



### L LOWER LEVEL SCALE: 1" = 160'-0"



## Alt 4a

Alternative 4a – Addition / Renovation

### Campus Approach

Renovate 1986  
Gymnasium & 1895  
Building

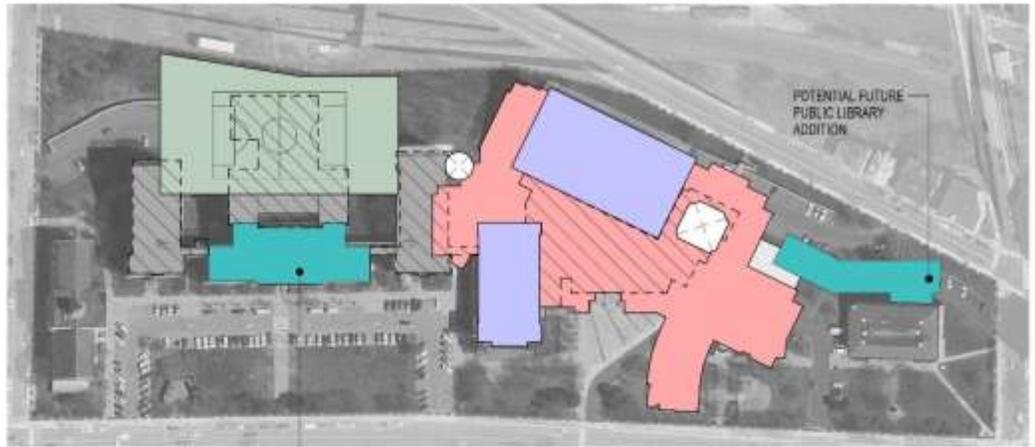
Renovate Auditorium  
New Cafeteria

New Disconnected  
Buildings

Phased Construction



# Construction Alternates

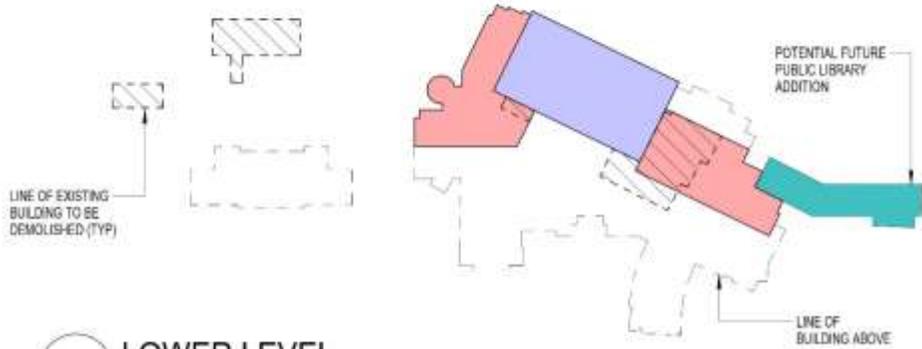


POTENTIAL FUTURE RE-USE OF 1895 STRUCTURE FOR CITY OFFICES (TYP. FOR FOUR FLOORS)

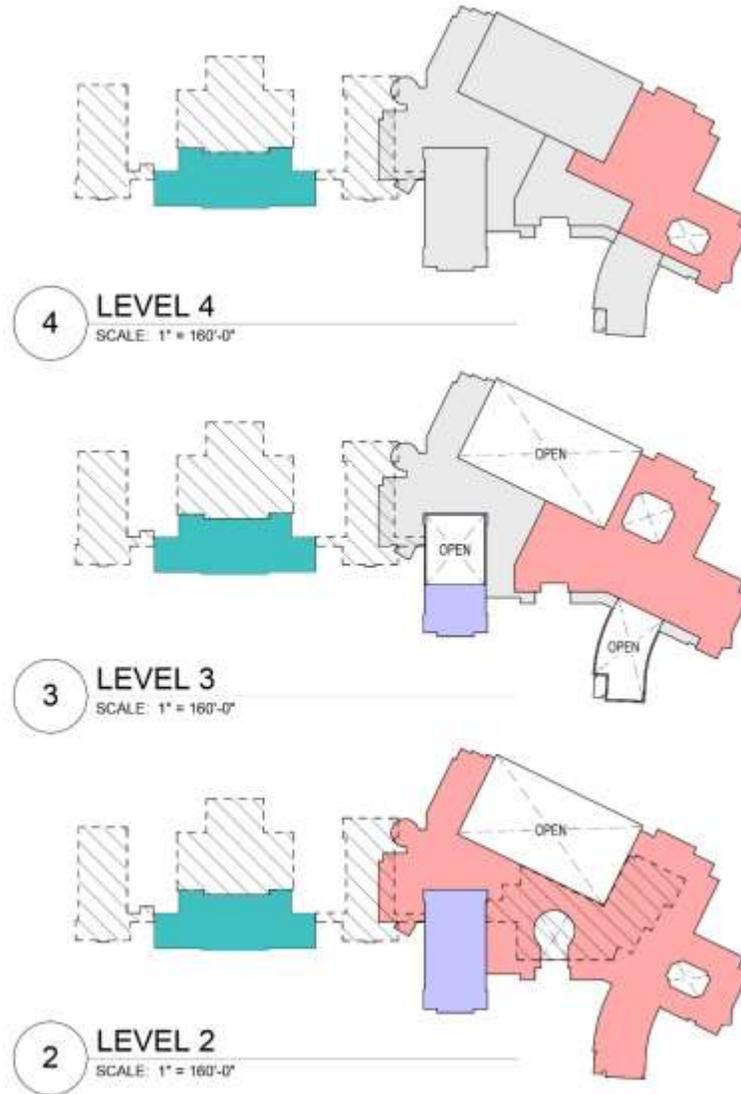
### CONSTRUCTION LEGEND

ADD FIELD FUTURE RENO ROOF

### 1 LEVEL 1 SCALE: 1" = 160'-0"



### L LOWER LEVEL SCALE: 1" = 160'-0"



## Alt 4b

Alternative 4b – Addition / Renovation

### Build HS to East Site

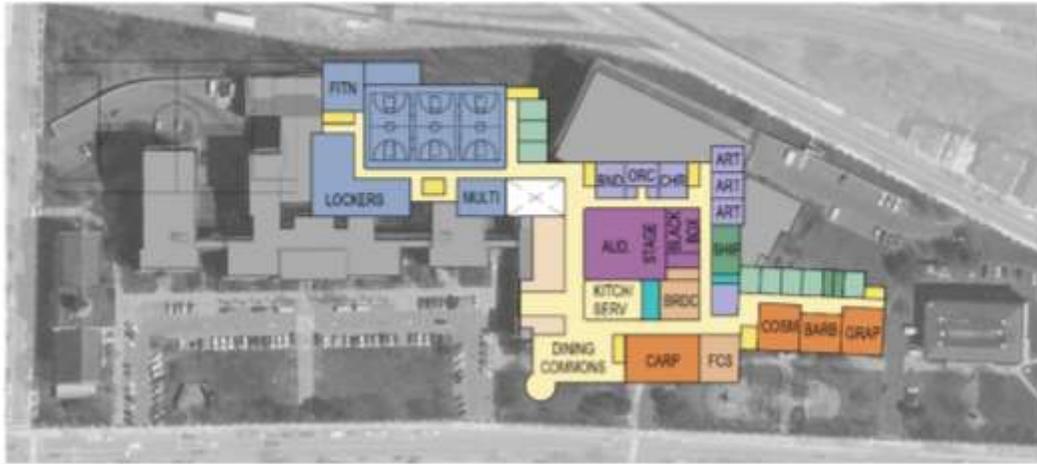
Enclosed / Open Central Circulation and Activity Space – Incorporates Cafeteria

Renovate 1986 Field House & CTE Spaces below Wing & D Wing (1929 War Memorial)

Phased Construction



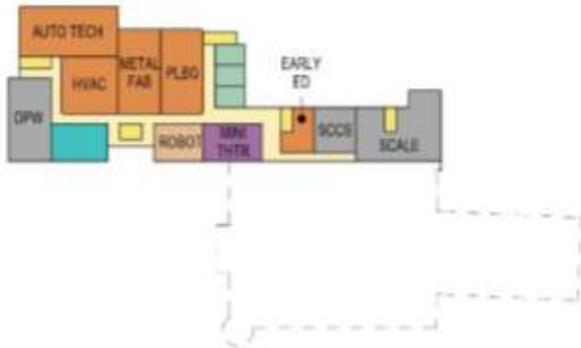
# Construction Alternates



## PROGRAM AREAS

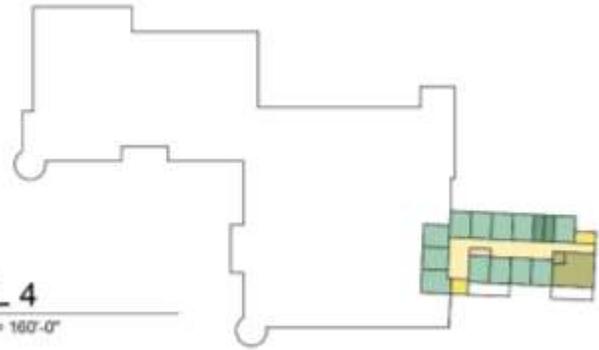
ADMIN	CH 74	HEALTH/PE	OFF-SITE AUXILIARY	STAIR/ELEV
ARTS	CIRCULATION	MEDIA CENTER	SCIENCE	SUPPORT
AUDITORIUM/DRAMA	CR	NWFC	SPED	TECH

**1** LEVEL 1  
SCALE: 1" = 160'-0"



**L** LOWER LEVEL  
SCALE: 1" = 160'-0"

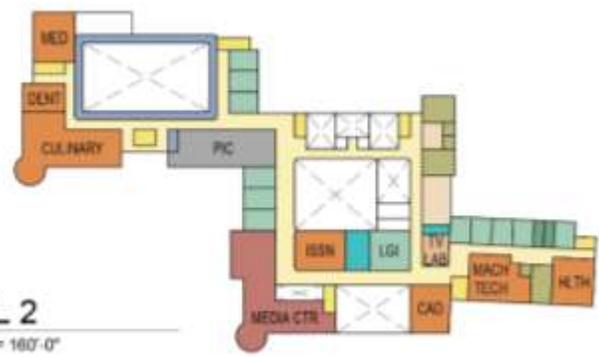
**4** LEVEL 4  
SCALE: 1" = 160'-0"



**3** LEVEL 3  
SCALE: 1" = 160'-0"



**2** LEVEL 2  
SCALE: 1" = 160'-0"



## Ait 5

Alternative 5 – New Construction

Demolish Existing High School and Build Completely New on the Existing High School Site

Phased Construction



# Project Schedule



# Updated Project Schedule

January 2014  
SHS Submits  
Statement of  
Interest to MSBA

March 2015  
Owner's Project  
Manager (PMA)  
Selected

July 2015  
Designer  
(SMMA)  
Selected

January 2017  
MSBA Board Vote  
for SHS Schematic  
Design Submission  
(Module 5)

Fall 2021  
Full Occupancy of  
New High School

MSBA  
MODULES



November 2014  
SHS Accepted  
into MSBA  
Feasibility Study

Today

June 2016  
Submission of  
Feasibility Study  
to MSBA

March 2018 (est.)  
Start of  
Construction  
(All new model)

# Somerville High School

## Frequently Asked Questions:

Q: Where can I obtain more information about the project?

A: A project web site has been established for the project, and will be continuously updated with project information. The web site address is:

<http://www.somervillema.gov/highschool/>



Thank you!