



# SMS

SOMERSET MIDDLE SCHOOL

**SMS Community Forum #9**  
**Ai3 Architects, LLC**  
**CGA Project Management**



May 6, 2021





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## School Committee

**Robert Gaw**  
**Shauna Geary, Vice Chair**  
**Christopher Godet**  
**Victor Machado, Jr.**  
**Michael McDonald, Chair**



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## School Building Committee

<b>Michael Botelho</b>	Resident & Former School Committee Member
<b>Richard Brown</b>	Town Administrator
<b>Kathleen Byers</b>	Middle School Teacher
<b>Dr. Pauline Camara</b>	Middle School Principal
<b>Carlos Campos</b>	Supervisor of Buildings and Grounds
<b>Chris Godet</b>	Chairman of School Committee
<b>Elizabeth Haskell</b>	Director of Curriculum and Assessment
<b>Robert Lima</b>	Resident & Former Water Department Superintendent
<b>Victor Machado, Jr.</b>	Chairman of Building Committee & School Committee Member
<b>Steven Medeiros</b>	Resident & Project Architect
<b>Nicole Mello</b>	Middle School Content Coordinator
<b>Cassey Monte</b>	Middle School Special Education Coordinator
<b>Nick Raffa</b>	Member at Large
<b>Kevin Scanlon</b>	Resident & Licensed Massachusetts Construction Supervisor
<b>Ira Schaefer</b>	Middle School Assistant Principal
<b>Jeffrey Schoonover</b>	Vice Chairman of Building Committee & Superintendent of Schools
<b>Ronald Tarro</b>	Director of Business and Finances
<b>James Teixeira</b>	Advisory and Finance Committee Member

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## Board of Selectmen

**Lorne Lawless, Chair**  
**Allen Smith**

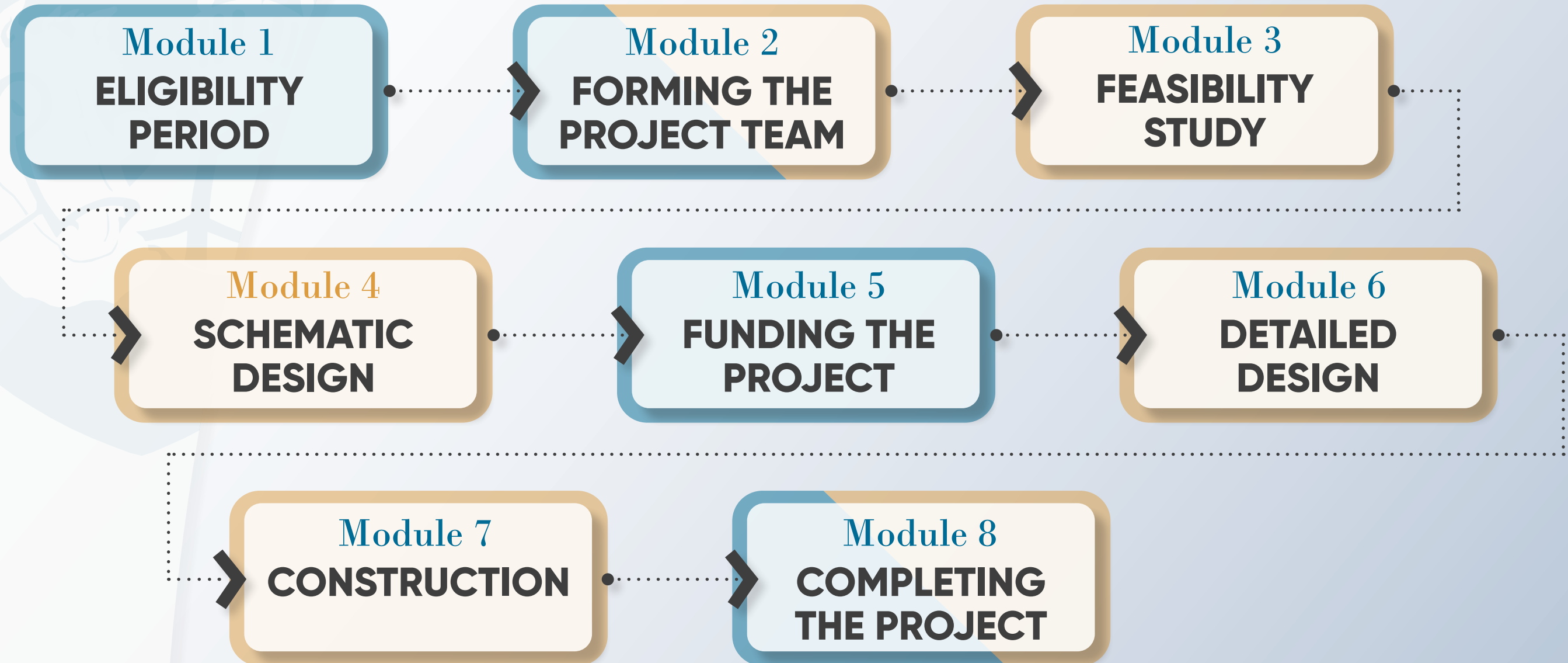


Massachusetts School Building Authority  
*Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities*

*Districts*

*Construction Professionals*

## MSBA Building Process



Over the past 20 months

Over 15,500 Collective Hours

The Town of Somerset and its professional team has been completing a comprehensive Feasibility Study & Schematic Design with VERY SPECIFIC guidance from the Massachusetts School Building Authority (MSBA).

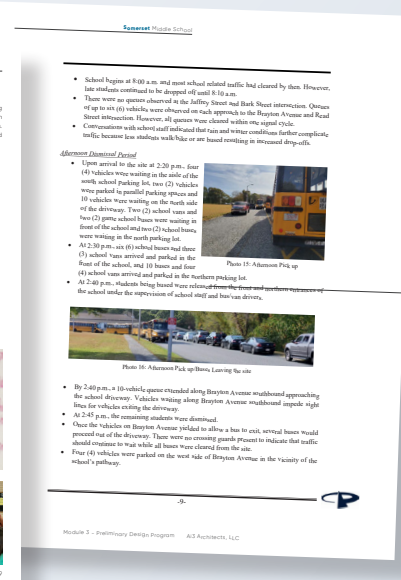
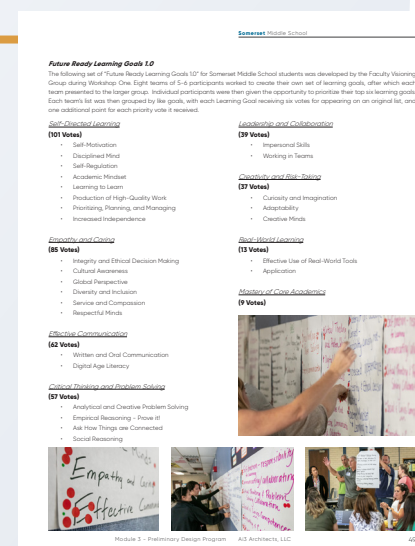
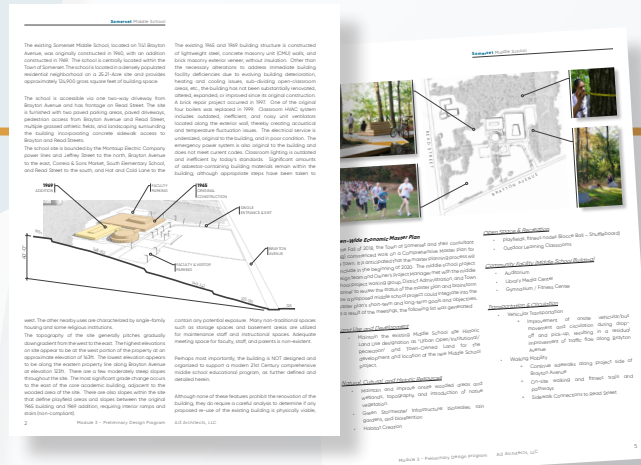
Analysis, investigation, reporting, planning, meetings, design, discussion, and educational visioning & brainstorming discussions.

# Over 1,600 Pages of Reports & Documentation

- Haz-Mat Inspection & Report
- Phase 1 Environmental Assessment
- Plumbing Evaluation
- Fire Protection Evaluation
- Electrical Evaluation
- Heating & Ventilation Evaluation
- Technology Systems Evaluation
- Structural Evaluation

- Educational Program Analysis
- Educational Visioning Program
- Building Evaluation
  - Accessibility Review
  - Energy Code Review
  - Building Code Review
  - Historical Analysis
  - Department of Elementary & Secondary Education (DESE) Review
- Space Summary Spreadsheets

- Site Evaluation
- Existing Conditions Site Survey
- Phase I: Traffic Study Impact Analysis
- Geotechnical Investigations
- Site Utility Review
- Permitting Review
- Comparison Matrix
- Sustainable Design Review



2016

2017/2018

2019

2020

2021

J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D

**SOI #1**

Statement of Interest

*March 16, 2016*

**Base Repair improvements**

(window/door replacement & HVAC/boiler replacement) at the existing Middle School.

**REJECTED**

**RESUBMITTED SOI**

Statement of Interest

*October 31, 2018*

- Accepted into the Core Program
- Invited into Feasibility Study & Schematic Design modules

**APPROVED**

**Feasibility Study**

- Existing conditions assessments
- Site analysis & investigation
- Educational visioning and programming with staff, administration, and students
- Conceptual cost projections

**24** different options evaluated

**Schematic Design**

Single Project Solution

*April 27, 2020*

- School Committee
- School Building Committee
- Board of Selectmen

**UNANIMOUS APPROVAL**

**6-8 New Construction**

**Independent Cost Estimates**

**PM&C**



**Town's Financial Advisor / Tax Impact Analysis**



**Estimated Total Project Cost**

**\$85 Million**

**Estimated Town Share**

**\$52 Million**

**83**

*SOIs submitted in 2017*

**15**

*SOIs invited into MSBA Program (Eligibility Period)*

**18%**

*of annual Core Program entrants were accepted*



# BOILER ROOM/BUILDING SYSTEMS

*Building systems have outlived their service life, are very inefficient, and in poor condition. Existing building constructed prior to the existence of building codes – numerous code related deficiencies.*

# BUILDING PROGRAM DEFICIENCIES

*Open concept classrooms*

*Undersized typical/science classrooms*

*Inadequate SPED Program space*

*Undersized Student Dining & Library Media Center*

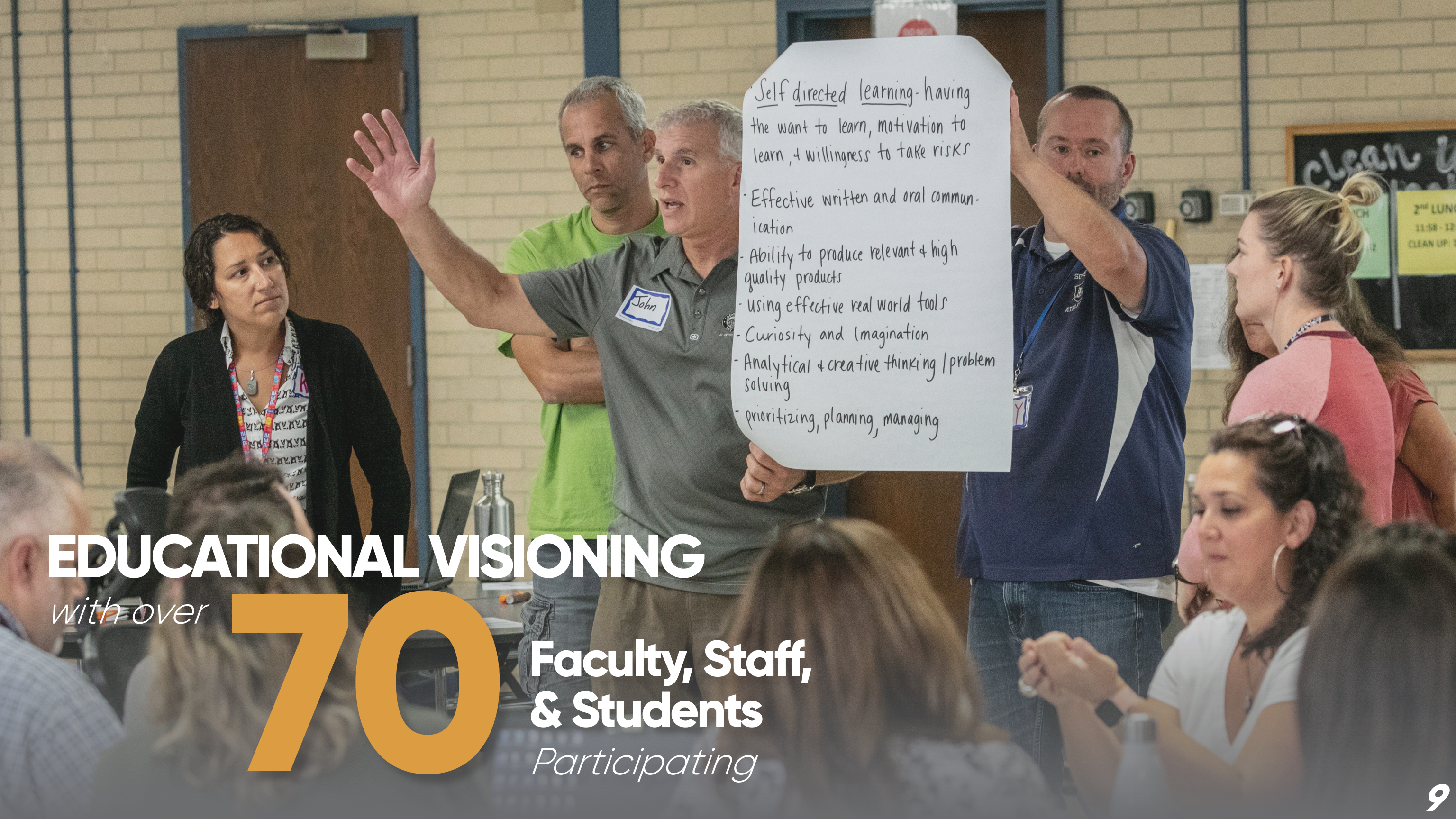




## CLASSROOM DEFICIENCIES

*Lack of modern-day technology  
Poor indoor air/environmental quality  
Antiquated, inefficient unit ventilators  
Poor artificial daylighting & lack of natural daylighting  
Lack of voice amplifying system & proper acoustics  
Lack of storage & teaching stations*





Self directed learning- having the want to learn, motivation to learn, & willingness to take risks

- Effective written and oral communication
- Ability to produce relevant & high quality products
- Using effective real world tools
- Curiosity and Imagination
- Analytical & creative thinking / problem solving
- prioritizing, planning, managing

# EDUCATIONAL VISIONING

*with over*

# 70

## Faculty, Staff, & Students

*Participating*

A group of people in a meeting room, with a large orange number 52 overlaid on the image. The background shows several people engaged in discussion around a table. A man in a dark suit is standing in the background, looking down. A woman in a white floral shirt is leaning over the table, talking to others. A woman with glasses and a white flower in her hair is also visible. The room has large windows in the background.

52

# EDUCATIONAL PROGRAMMING MEETINGS

*with*

**Faculty, Staff, Content  
Coordinators, & Students**

# 50

**EDUCATIONAL SUB-COMMITTEE**

*Meetings*

# 23

**SCHOOL BUILDING COMMITTEE (SBC) & JOINT SBC,  
SCHOOL COMMITTEE, & BOARD OF SELECTMEN**

*Meetings*



# COMMUNITY FORUMS

9

Cafeteria Expectations  
How to Be a Successful Student in the Cafeteria  
Cafeteria Rules  
Positive Consequences  
Negative Consequences

SOMERSET  
SMS  
MIDDLE SCHOOL

# Cost Conscious Design Approach:

Throughout the Feasibility Study and Schematic Design process, the School Building Committee, School Committee, and Board of Selectmen have been **mindful of the financial impact the project** will have on the Somerset taxpayers, while planning a school that will serve the Town for the next 50+ years. The Committees have explored multiple ways to reduce the cost of the project, all resulting in a lower project cost to taxpayers.

\$\$\$

**Option 4**  
Scheme 10.5

**Building  
Placement**

**Reduced  
& Efficiently  
Organized  
SF Footprint**

**Building  
Materials &  
Constructability**

\$\$

- Selection of Option 4 – Scheme 10.5 (**6-8 New Construction** vs. phased occupied renovation)
- Energy Efficiency Partnerships with local utility programs (NGRID, Liberty Gas); **Energy Efficiency Rebates**
- Proactive Building Maintenance Program (**Additional 1.22% MSBA Reimbursement**)
- Sustainability / Energy Efficient Project (**Additional 2% MSBA Reimbursement**)
  - LEED (Leadership in Energy and Environmental Design) Certification
- Strategic positioning of the new building:
  - Building placement optimizing the existing topography
  - Building organization and orientation based on solar path (**maximize natural daylighting while minimizing operating costs**)
  - **Building placement** to reduce gas, electrical, and water services from Brayton Avenue and Read Street
  - Away from the existing building to reduce potential educational disruption during construction
  - Away from the existing building to reduce occupied construction phasing and construction timeline
- **Simplified and efficient organization** of the new building floor plan
- **Reduced footprint** of the new building (via three-story building)
- Stacked academic floor plan to **simplify building structure and building constructability**
- Minimize roof transitions
- Use of cost effective, long lasting, durable, low maintenance materials (natural stone, brick, cementitious panels, glass fiber reinforced panels (GFRP))

# PM&C Bid Result Tracking | 2020 - 2021

<i>School</i>	<i>Building Size (GSF)</i>	<i>PM&amp;C Estimate</i>	<i>General Contractor Low Bid</i>	<i>% Lower/Higher than Estimate</i>	<i>Bid Date</i>
Watertown <b>Cunniff + Hosmer ES</b>	<b>224,355</b> GSF	<b>\$96,345,371</b>	<b>\$92,355,000</b>	<b>-4.16%</b>	5/06/20
Saugus <b>Belmonte MS</b>	<b>155,598</b> GSF	<b>\$14,732,285</b>	<b>\$13,109,000</b>	<b>-11.02%</b>	7/10/20
Gardner <b>Gardner ES</b>	<b>147,120</b> GSF	<b>\$70,402,699</b>	<b>\$61,550,000</b>	<b>-12.57%</b>	10/25/20
Millbury <b>Shaw ES</b>	<b>90,257</b> GSF	<b>\$48,383,381</b>	<b>\$44,482,548</b>	<b>-8.06%</b>	2/24/21
Easton <b>Easton Early ES</b>	<b>148,422</b> GSF	<b>\$74,188,588</b>	<b>\$63,489,000</b>	<b>-14.42%</b>	2/23/21
South Yarmouth <b>Dennis Yarmouth Intermediate MS</b>	<b>185,766</b> GSF	<b>\$92,982,076</b>	<b>\$83,843,640</b>	<b>-9.83%</b>	3/16/21
Amesbury <b>Amesbury ES</b>	<b>98,195</b> GSF	<b>\$49,700,000</b>	<b>\$49,740,000</b>	<b>0.08%</b>	4/28/21
<b>Average</b>				<b>-8.57%</b>	



# What is the **ESTIMATED COST** of the Proposed Project?

Project Design Phase	100% Schematic Design
Estimated Construction Cost	February 2021 Grades 6-8 124,200 GSF \$69,956,365
Estimated Total Project Cost	\$85,020,490
Estimated Town Share	\$52,420,736

Approximately  
**\$563 / square foot**  
 Construction Cost  
 (Including Add Alt #1  
 PV reinstall)

*Estimates assume a construction start of Summer 2022*

1. Third party cost estimates are not represented as the final construction costs, as the information they are based on are Schematic Design drawings.
2. Estimates assume public bidding under Chapter 149 (Design-Bid-Build) of the MGL.
3. Estimated Town Share does not include \$800,000 for the Feasibility Study previously approved by the Town.

# Preliminary Tax Impact Analysis



COST SUMMARY		20 YEAR TERM			
CATEGORY	BASE	\$100,000 Property Value		\$311,000 Property Value (Avg.)	
		Per Year	Per Month	Per Year	Per Month
TOTAL	\$85.0M	\$121	\$10	\$375	\$31
FSA	\$800K <sup>1</sup>				
MSBA	\$31.8M				
TOWN	\$52.4M				
COST SUMMARY		25 YEAR TERM			
CATEGORY	BASE	\$100,000 Property Value		\$311,000 Property Value (Avg.)	
		Per Year	Per Month	Per Year	Per Month
TOTAL	\$85.0M	\$107	\$9	\$332	\$28
FSA	\$800K <sup>1</sup>				
MSBA	\$31.8M				
TOWN	\$52.4M				
COST SUMMARY		30 YEAR TERM			
CATEGORY	BASE	\$100,000 Property Value		\$311,000 Property Value (Avg.)	
		Per Year	Per Month	Per Year	Per Month
TOTAL	\$85.0M	\$98	\$8	\$304	\$25
FSA	\$800K <sup>1</sup>				
MSBA	\$31.8M				
TOWN	\$52.4M				

<sup>1</sup> Feasibility study was paid with cash appropriation.

**Assumptions:**

- \* Amounts listed are approximate. Final values may change.
- \* Estimated Interest rates range from (3%-4%) and are subject to change.
- \* Tax rate impact assumes no growth in assessed value over the life of the bonds.
- \* Tax rate impact assumes the residential to commercial/industrial/personal property tax rate shift will remain constant.
- \* Tax rate impact assumes the average home value will remain constant over the life of the bonds.
- \* Bonds issued on average level debt service basis.
- \* Information was extrapolated from data provided by Hilltop Securities, Inc.



**February 24, 2021**

*School Building Committee, School Committee,  
& Board of Selectmen **Unanimously Approved...***

**April 14, 2021**

*MSBA Board of Directors  
**Unanimously Approved...***

**The construction of a  
NEW 124,200 GSF MIDDLE SCHOOL  
serving grades 6-8, that is:**

- *right-sized*
- *fiscally responsible*
- *educationally appropriate*
- *safe, sound, and sustainable*
- *a community asset*



- New expanded **playfield opportunities**
- Fitness/cross country trails
- **Distributed parking**
- Separated parent & bus drop-off zones
- **Universally accessible site, playfield, & building**
- Additional site entrances for **safety & security**



**East-West Site Section**  
Building FFE

Brayton Ave

Parking

Parent Drop-Off



Read Street

New 6-8 Middle School  
124,200 GSF

South  
Elementary  
School site

Fitness & Cross  
Country trails in  
Existing Wooded  
Area

Multi-use  
Playfield

Amphitheater

Parking

Academic  
Wing

Loading  
Area

Softball Field

Gymnasium/  
Auditorium

Baseball  
Field

Bus drop-off  
zone

Main Entry  
Plaza

Secondary  
Entry Plaza

Parent drop-  
off zone

Parking

Parking

Multi-use  
Playfield

Brayton Avenue

**Clearly identifiable and visible**  
site and building entrance

**Warm, inviting, and secure**  
welcoming entrance

Strategic placement of school  
office and administration with  
clear views to entry plaza



Use of the site topography  
to create **expanded outdoor  
educational and performance  
spaces**

Physical and visual connection  
between outdoor performance  
space and auditorium



Integration of **outdoor educational spaces** for multiple classes

**100% wireless access** coverage in building & outdoor educational spaces

**Outdoor connection** from the academic wing and student dining space



## High Performance Building Envelope

Energy efficient windows, roof, and high R-value insulation that increase energy efficiency, reduce operating costs, and increase student and teacher comfort levels

Re-use of existing 285kW PV array



Strategic orientation of the academic wing to optimize natural daylighting

3-story classroom wing blended nicely into the existing site topography, reducing site construction costs and optimizing natural educational features





Incorporation of **passive & active security** measures

Integration of **interior & exterior surveillance** cameras (CCTV)

Strategically placed SRO office with **clear sightlines to main entry**

Clear separation between visitor and student/faculty interaction



Direct connection to outdoor educational & athletic spaces

Large format digital display across from educational assembly stair

- team meetings
- small group assemblies
- cultural events
- guest speakers
- performance space



Improved acoustics, daylighting,  
ventilation, indoor air quality,  
and views to the exterior (nature)

Multiple teaching/presentation  
stations

Centrally located circulation  
desk and staff work room



**Natural site and building surveillance** – clear visual sightlines and program adjacencies

**Multimedia & editing studio** incorporated into media center

**Integrated teacher collaboration space** on all three floors



create + innovate

Classrooms are **flexible** with **multiple teaching stations**

**21st Century Technology** integrated into every classroom space

**Improved** indoor air quality, environmental quality, mechanical systems, daylighting, acoustics, and voice amplifying system



**Integration of Project Innovation  
Lab and collaboration spaces**

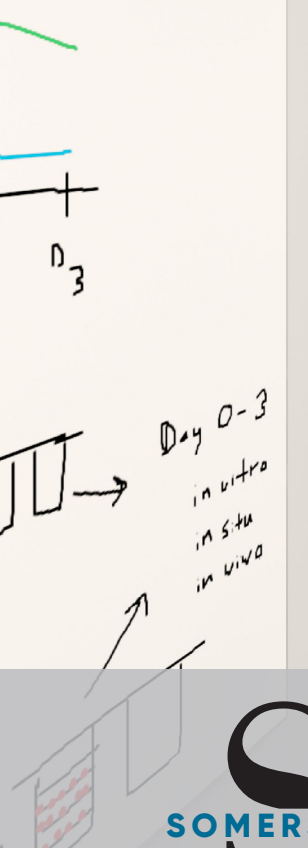
**Flexible spaces** to  
accommodate fluid  
modifications to classrooms

Hands-on projects &  
multidisciplinary collaboration



Integrated and flexible **grade-level project labs** at core of the academic wing  
team meetings  
presentations  
literature circles  
poetry slams  
guest speakers

Multiple locations of **small group breakout spaces** within corridor

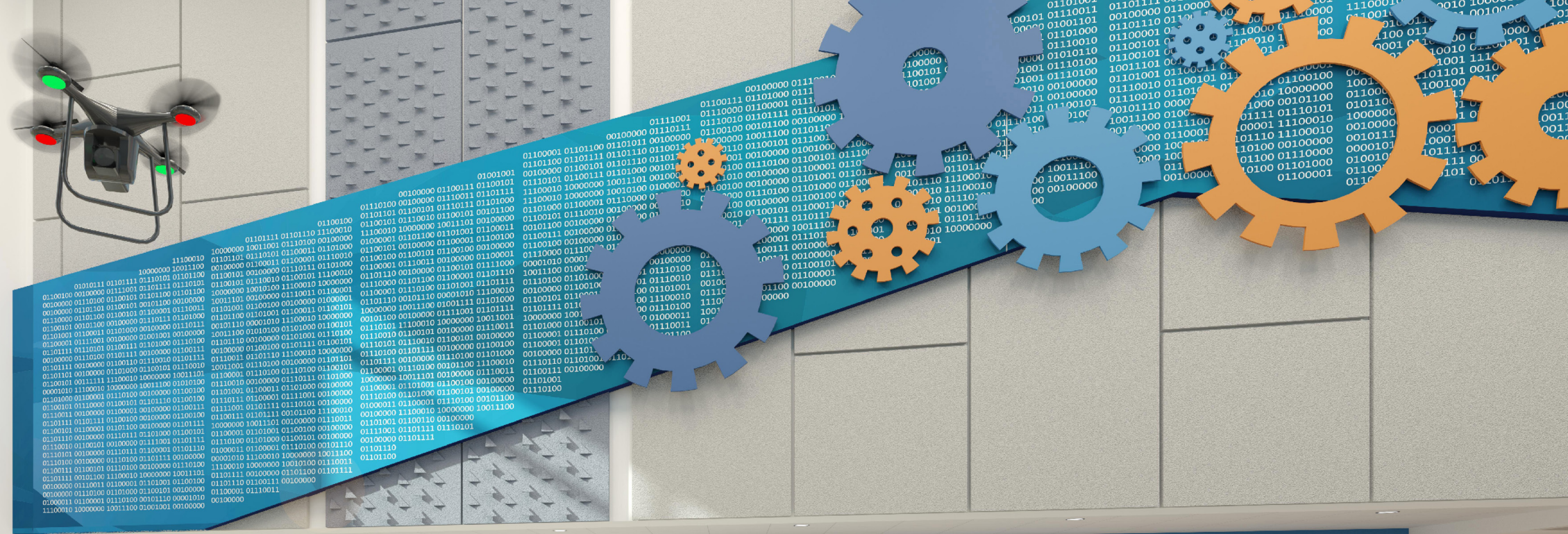


Access to **modern educational technology**

Double height space to **optimize testing area** (drones/robots)

Use of virtual/augmented reality technology

**Physical connection between classrooms** for teacher/class collaboration





**Educational connections to outdoors**

**21st Century educational technologies** incorporated in building

- improved indoor air quality
- high efficiency mechanical systems
- natural and artificial, high efficiency LED lighting
- proper acoustics



**Full-size Gymnasium**

- basketball court
- cross courts
- volleyball courts
- hardwood floors
- seating
- divider curtains

Direct connection to the exterior

Teacher & staff workroom  
centrally located



Flexible art display for both community and student work

Direct connection to the Performing Art, Music, Gymnasium, OT/PT, & Fitness spaces



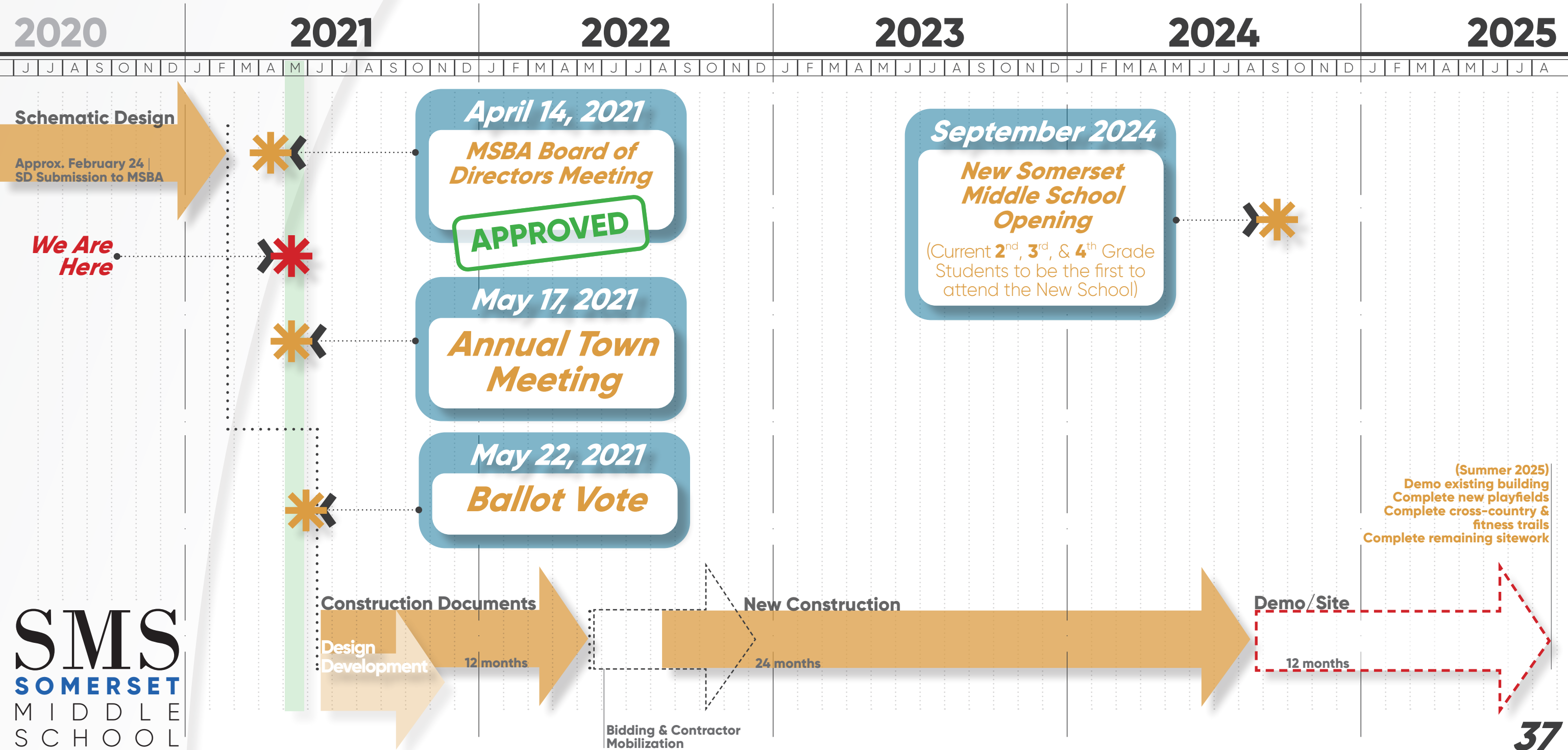
**State-of-the-Art Performance  
Auditorium and Music spaces**

Visible & physical connection to  
the exterior

Integrated theatrical lighting,  
sound, stage curtains, line sets



# SMS | Project Timeline



# Vote #1

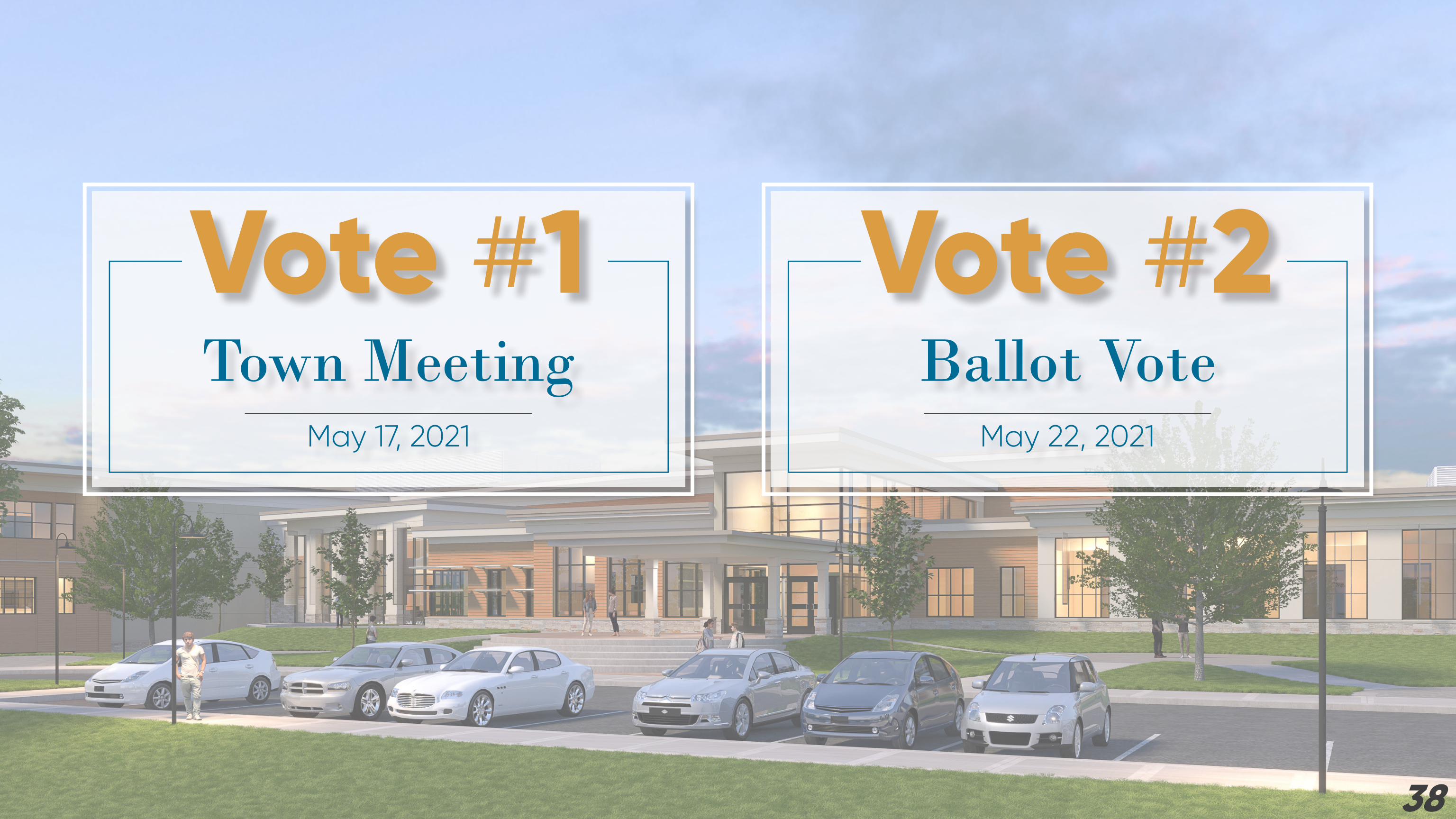
## Town Meeting

May 17, 2021

# Vote #2

## Ballot Vote

May 22, 2021



# Vote #1

## Town Meeting Article

**FAILED VOTE**

**PASS VOTE**

# Vote #2

## Ballot Vote

**PASS VOTE**

Somerset **will forfeit** the opportunity to receive a max grant of **\$31,799,754** in state aid offered by the MSBA

The Town of Somerset will enter into the MSBA's Module 6: Project Scope and Budget Phase

The Town of Somerset will be required to **withdraw** from the MSBA Grant Program

If eligible, Somerset will enter into the Feasibility Study again. **MSBA will not reimburse for a second feasibility study.**

The Design Team will proceed with Design Development and Construction Documents

The Town of Somerset will have to **submit another Statement of Interest (SOI)** and receive an invitation into the Eligibility Period Phase of the MSBA Process

an invitation that took more than four years for the initial round

**September 2024**  
**New Somerset Middle School Opening**  
(Current 2<sup>nd</sup>, 3<sup>rd</sup>, & 4<sup>th</sup> Grade Students to be the first to attend the New School)

The Project will go out to Bid and will enter into the Construction Phase

# Frequently Asked Questions

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- I. What is the role of the Massachusetts School Building Authority (MSBA)?
- II. Why did the SMS SBC/SC/BOS all endorse the construction of a new 6-8 Middle School instead of proposing to expand & renovate the existing building?
- III. What are some of the existing building challenges?
- IV. What are the safety & security measures included in the proposed project?
- V. What is the project timeline?
- VI. What happens if the debt exclusion vote DOES or DOES NOT pass in May 2021?
- VII. What are the educational & community benefits associated with the new middle school?
- VIII. What is the estimated cost of the project & what does it include?

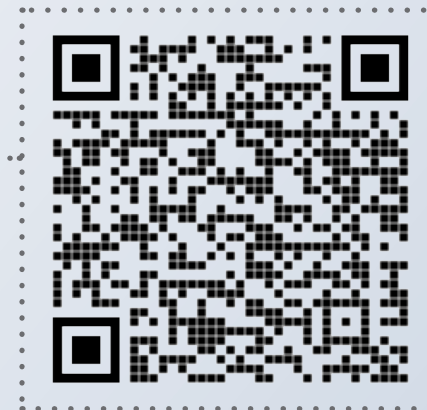


### Continued Communications

- ▶ **For project related questions, please Email:**
  - Email: [smsbuildingproject@somersetschools.org](mailto:smsbuildingproject@somersetschools.org)

- ▶ **For more info, visit our Website:**
  - Somerset Middle School Building Project
  - Visit: <http://bit.ly/SMSbuildingproject>

- ▶ **Follow us on:**     
SMS\_BuildingCommittee



# Initial Design Categories

## Evaluation Criteria

- ▶ Does it integrate the Town-wide economic Master Plan?
- ▶ Does it accommodate the Educational Program and Educational Visioning?
- ▶ Does it minimize disruption to Education during construction?
- ▶ Does it provide the most efficient Construction Schedule?
- ▶ Does it provide the most fiscally responsible solution?
- ▶ Does it provide the most sustainable, energy efficient solution?

## Estimated Costs

- ▶ Estimated Construction Duration (Building only)
- ▶ Estimated Total Construction Cost
- ▶ Estimated Total Project Cost

## Estimated Total Town Share

- ▶ Estimated Tax Impact per Month (per \$100,000 property value)
- ▶ Estimated Tax Impact per Year (per \$100,000 property value)

### \* Base Repair Code Required Upgrades Only

✗

✗

✗

✗

✗

✗

**48 months**

**\$23-\$25 million**

**\$37-\$40 million**

**\$37-\$40 million**

**\$6**

**\$76**

**DOES NOT** address educational space deficiencies

**DOES NOT** address poor existing building organization

**DOES NOT** address poor existing building natural daylighting / indoor environmental quality

**DOES NOT** address existing bus and vehicular circulation and single site entry access

**DOES NOT** address existing site stormwater drainage issues

**DOES NOT** address deficiencies in site amenities/outdoor educational space/playfields

**DOES NOT** address long-term goals of the Town-wide Master Plan

**EXTENDED** educational disruption during construction

**EXTENDED** phased occupied construction timeline

### Addition / Renovation

✓

✗

✗

✗

✓

✗

**42 months**

**\$74 million**

**\$91 million**

**\$55 million**

**\$8.50**

**\$104**

### New Construction

✓

✓

✓

✓

✓

✓

**24 months**

**\$69 million**

**\$85 million**

**\$52 million**

**\$8**

**\$98**

**NOT AN OPTION**

\* • Includes Window/Door and Boiler/HVAC replacement projects that were previously rejected by the MSBA as part of the SOI application review, as the deficiencies that required attention were more significant.

- MSBA reimbursement is UNKNOWN since the Base Repair projects were initially rejected by the MSBA.
- Base Repair projects only include code required upgrades and do not include educational improvements.
- Assumes scope of work completed in a 4 year period with phased occupied construction and an escalation rate of 2% each year.