

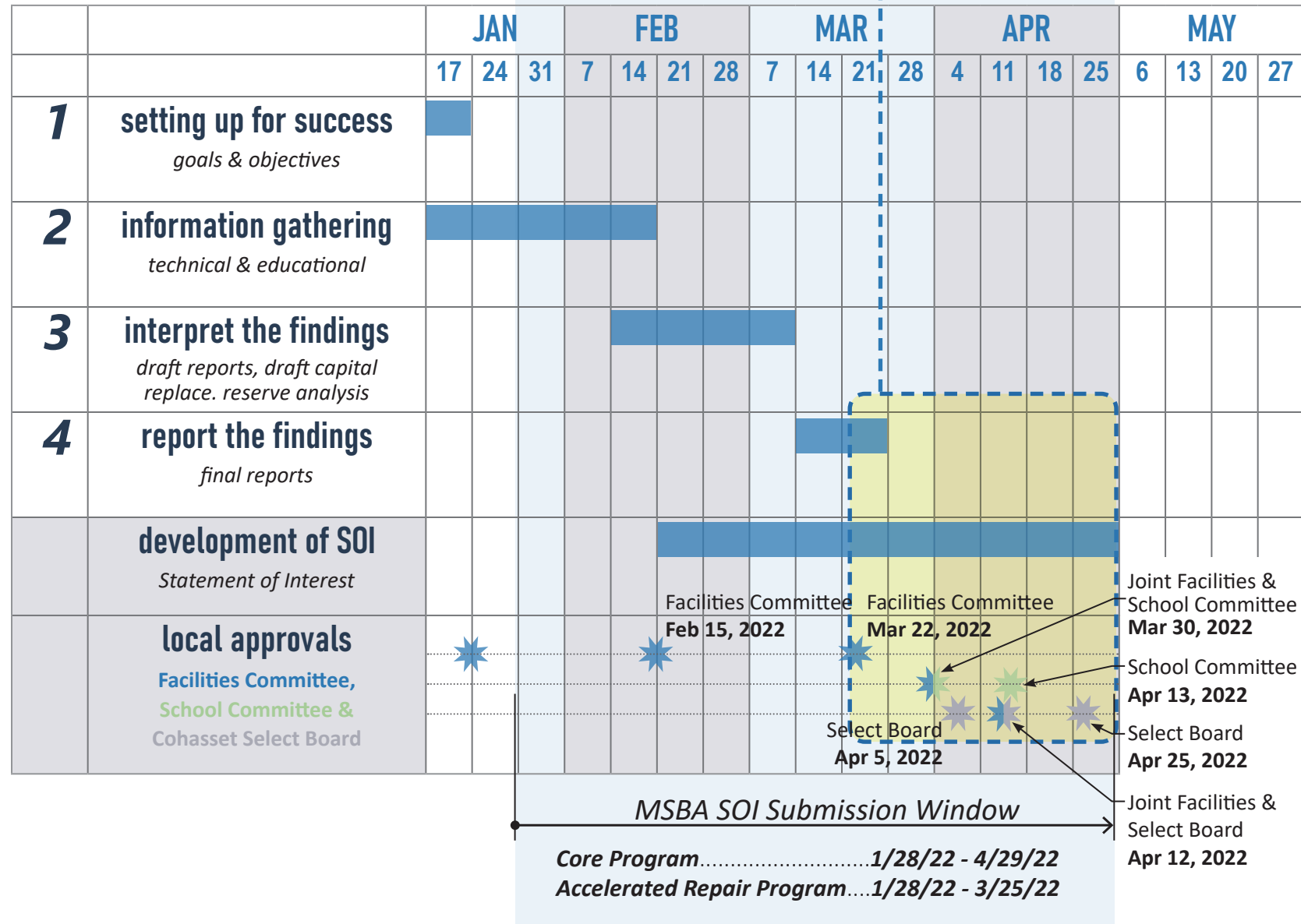


& COHASSET PUBLIC SCHOOLS: EXISTING CONDITIONS STUDY

2022

Presentation of Draft Report
March 22, 2022

Overview of Schedule & Activities



MAR 2022

22 - Provide Facilities Committee with **draft report**

28 - Prepare list of **capital repair/replacement** projects

30 - Present draft report to Cohasset School Committee

** - Assist District with development of MSBA **Core Program SOI**

APR 2022

** - Assist District with development of MSBA **Core Program SOI**

29 - **Deadline for District** to submit Core Program SOI to the MSBA

Cohasset Middle-High School

Summary - Physical Building Evaluation

Average score:
Potentially Critical
2.8
Cohasset Middle-High School

Average score:
Not Yet Critical
3.6
Deer Hill Elementary School

Average score:
Recommended Upgrades
4.2
Joseph Osgood Elementary School

AVG. SCORE	EVALUATION CATEGORY	SUBCATEGORY	SUMMARY
1	Architectural Evaluation - Interior	Building Code/Accessibility Compliance	The building does not meet ADA standards and therefore, does not offer an inclusive environment for all types of student differentiation; Code upgrades of grandfathered items required for safety
1-2	Architectural Evaluation - Interior	Healthy Environment	Though issues related to noise negatively affect the educational environment, those related to thermal health, moisture control, and air quality should be considered highest priorities given their direct impact on occupants' health and well being
4	Architectural Evaluation - Interior	Finishes	Overall, the flooring, walls, and ceilings are in acceptable condition, with some exceptions; Replacement with products that include Health Product Declarations are recommended to be used for improved indoor air quality
2-3	Architectural Evaluation - Exterior	Roofing	Worn/inconsistent flashing , missing seals and gaskets at penetrations, cracked sealants at roof patches, unaddressed tears in the membrane, and major water ponding are potentially critical items; Replace with a more insulated roof that draws less heat
2-3	Architectural Evaluation - Exterior	Walls	Broken gutters, finish grade above foundations, poor seals, holes in masonry, deteriorating finishes, and lack of flashing may be contributing to the air quality/ moisture control issues felt on the interior; Failing finishes/bricks are safety hazards
3	Site Evaluation	Landscape	Accessibility issues common throughout site, including access to school - upgrading is necessary to avoid hazardous conditions for visitors; Grading and drainage issues impact functionality of site (playfields oversaturated); Replace synthetic turf
4	Site Evaluation	Civil	Access to and from site is currently the biggest hurdle to achieve a functional site; Circulation is tight, access around building is challenging, drop-off locations are distant from main entries; Parking is a major challenge on site and wetlands inhibit expansion
4	Structural Evaluation	Structural	All of the structural components that are visible appear to be performing adequately , though exterior rusted lintels , cracks in the façade, and displaced bricks are recommended to be repaired as part of the maintenance program
1-2	Building Systems	Mechanical	Current HVAC equipment operational, but at end of service stage; Some components of current system no longer manufactured - replacing individual parts not recommended; Upgrade to meet current efficiency standards & achieve better humidity control
2	Building Systems	Plumbing	Continue to replace plumbing fixtures with high efficiency sensor/low-flow models; Water heaters, water piping, and gas system in acceptable condition; Booster pump and kitchen waste systems are either in poor condition or require code compliance
6	Building Systems	Fire Protection	The building is 100% sprinklered , which is compliant with current building code; Continue current practices to maintain the sprinkler system
2	Building Systems	Electrical	Emergency power systems need to be upgraded as these items are related to occupant safety; BDA and MNS systems are recommended for enhanced safety; Recommend upgrade all fixtures to LED and add occupant/daylight sensors to improve efficiency
3	Building Systems	Technology	Overall technology is sufficient , however, upgrades to clocks, PA system, and switches recommended to meet functional and operational procedures of today; Additionally, classroom interactivity and voice lift systems should be improved upon
2.8	TOTAL PHYSICAL BUILDING EVALUATION SCORE		The building is potentially critical/not yet critical overall; it is operational and inhabitable, but is considered to be in fair condition - replace within 4-6 years

Cohasset Middle-High School

Summary - Physical Building Evaluation

Building Exterior

Potentially Critical

- Broken gutters
- Finish grade above foundations
- Poor seals and gaskets + cracked sealant
- Holes in masonry
- Deteriorating finishes
- Lack of flashing (may be contributing to the air quality/moisture issues felt on the interior)
- Failing finishes/bricks are safety hazards
- Unaddressed tears in roof membrane
- Major water ponding on roof
- Insulation thickness at walls and roof doesn't meet energy code standards
- Entrances not easily identifiable
- Old signage still reads High School only



Cohasset Middle-High School

Summary - Physical Building Evaluation

Building Exterior

New

- ✓ Adequate exterior wall construction, with vapor barrier, air gap, insulation, and metal stud backup with drywall
- ✓ Energy efficient windows with sun control devices
- ✓ Clearly identifiable and accessible entries with signs
- ✓ Boulevard for bus/parent circulation surrounded by vegetated buffers
- ✓ Light-colored roof for limited heat gain

*Abington Co-Located Middle-High School
Abington, MA*



Deer Hill Elementary School

Summary - Physical Building Evaluation

Average score:
Potentially Critical
2.8
Cohasset Middle-High School

Average score:
Not Yet Critical
3.6
Deer Hill Elementary School

Average score:
Recommended Upgrades
4.2
Joseph Osgood Elementary School

AVG. SCORE	EVALUATION CATEGORY	SUBCATEGORY	SUMMARY
6	Architectural Evaluation - Interior	Building Code/Accessibility Compliance	The interior of the building is largely compliant regarding international and state building codes and by accessibility standards
4	Architectural Evaluation - Interior	Healthy Environment	Other than the pest issue, which seems to be isolated to the electric room, the building fosters a healthy environment for students and would benefit from supplemental acoustical treatments
4	Architectural Evaluation - Interior	Finishes	Potentially critical items are all on the surface, in the form of flooring, painting, ceilings, or casework updates; As was achieved for the corridors, these are relatively easy capital repairs primarily in core classrooms, art, and the cafeteria
3	Architectural Evaluation - Exterior	Roofing	The roof is operational but requires maintenance for improved performance; Ensuring seals are applied, membrane is secured, drains are cleared and ponding is monitored will extend the life of the roof
3	Architectural Evaluation - Exterior	Walls	The masonry is in acceptable condition and would benefit from cleaning to remove water stains and moss ; Paint metal doors, supports, caps, lintels and any other components with rust; FRP should be washed and sealed at joints; Maintain seals
4	Site Evaluation	Landscape	Inaccessible routes are not yet critical in physical condition, but upgrading is necessary to avoid hazardous conditions for visitors; Maintenance practices of the grounds, plantings, and play equipment should continue
4	Site Evaluation	Civil	Options to alleviate traffic flows during drop-off and pick-up times should be reviewed and reconsidered; Consider repaving in areas with broken/settled pavement ; Parking is a challenge on site and wetlands inhibit expansion
4	Structural Evaluation	Structural	All of the structural components that are visible appear to be performing adequately , though exterior rusted lintels are recommended to be repaired as part of the maintenance program; Monitor cracks along exterior and interior walls
1-2	Building Systems	Mechanical	Current HVAC equipment operational, but at end of service stage; Some components of current system no longer manufactured - replacing individual parts not recommended; Upgrade to meet current efficiency standards
4	Building Systems	Plumbing	Continue to replace plumbing fixtures with high efficiency sensor/low-flow models; Water heaters, water piping, and gas system in acceptable condition; provide grease trap at kitchen and replace fixtures in art classroom
4	Building Systems	Fire Protection	The building is 100% sprinklered , which is compliant with current building code; Continue current practices to maintain the sprinkler system
2	Building Systems	Electrical	Emergency power systems need to be upgraded as these items are related to occupant safety; BDA and MNS systems are recommended for enhanced safety; Recommend upgrade all fixtures to LED and add occupant/daylight sensors to improve efficiency
3	Building Systems	Technology	Overall technology is sufficient , however, upgrades to clocks, PA system, and switches recommended to meet functional and operational procedures of today; Additionally, classroom interactivity and voice lift systems should be improved upon
3.6	TOTAL PHYSICAL BUILDING EVALUATION SCORE		The building is not yet critical overall and would benefit from capital repairs, but is considered to be in acceptable condition - replace within 7-10 years

Deer Hill Elementary School

Summary - Physical Building Evaluation

Building Exterior

Not Yet Critical

- Masonry to be cleaned of water stains and moss
- Precast concrete to be cleaned of water stains and moss
- Metal doors to be painted, as well as metal components like caps and lintels, to prevent corrosion
- FRP to be washed and sealed at joints
- Seals at windows and penetrations to be maintained
- Un-adhered roof membrane to be repaired
- Clear roof drains of debris



Joseph Osgood Elementary School

Summary - Physical Building Evaluation

Average score:
Potentially Critical
2.8
Cohasset Middle-High School

Average score:
Not Yet Critical
3.6
Deer Hill Elementary School

Average score:
Recommended Upgrades
4.2
Joseph Osgood Elementary School

AVG. SCORE	EVALUATION CATEGORY	SUBCATEGORY	SUMMARY
6	Architectural Evaluation - Interior	Building Code/Accessibility Compliance	The interior of the Joseph Osgood Elementary School building is largely compliant with building codes and by accessibility standards.
6	Architectural Evaluation - Interior	Healthy Environment	The interior environment is satisfactory for its occupants
6	Architectural Evaluation - Interior	Finishes	The interior finishes are in good condition
3	Architectural Evaluation - Exterior	Roofing	Consider replacement of asphalt shingle roofs with standing seam instead, to alleviate consistent shingle replacement ; Continue to review and repair seams at EPDM and monitor ponding, if any; Replace oxidized flashing/accessories
2	Architectural Evaluation - Exterior	Walls	Windows are in poor condition and should be replaced; Consider removal of the composite panels and replacement with all new, for a cohesive look, or another product, like aluminum composite or wood, for a face lift
4	Site Evaluation	Landscape	Inaccessible routes are not yet critical in physical condition, but upgrading is necessary to avoid hazardous conditions for visitors; Maintenance practices of the grounds, plantings, and play equipment should continue
4	Site Evaluation	Civil	Options to alleviate traffic flows during drop-off and pick-up times should be reviewed and reconsidered; Consider repaving in areas with broken/settled pavement
6	Structural Evaluation	Structural	All of the structural components that are visible appear to be performing adequately
2-3	Building Systems	Mechanical	Current HVAC equipment operational, but at end of service stage; Some components of current system no longer manufactured - replacing individual parts not recommended; Upgrade to meet current efficiency standards
6	Building Systems	Plumbing	Continue to replace plumbing fixtures with high efficiency sensor/low-flow models; Water heaters, water piping, and gas system in acceptable condition
4	Building Systems	Fire Protection	The building is 100% sprinklered , which is compliant with current building code; Continue replacement of recalled sprinkler heads
3	Building Systems	Electrical	BDA and MNS systems are recommended for enhanced safety; Recommend upgrading all fixtures to LED and add occupant/daylight sensors to improve efficiency
3	Building Systems	Technology	Overall technology is sufficient , however, upgrades to clocks, PA system, and switches recommended to meet functional and operational procedures of today; Additionally, classroom interactivity and voice lift systems should be improved upon
4.2	TOTAL PHYSICAL BUILDING EVALUATION SCORE		The building is not critical overall and would benefit from recommended upgrades, but is considered to be in good condition - replace in 10+ years

Joseph Osgood Elementary School

Summary - Physical Building Evaluation

Building Exterior

Recommended

- Consider replacement of asphalt shingle roofs with standing seam instead, to alleviate consistent shingle replacement
- Continue to review and repair seams at EPDM and monitor ponding
- Replace oxidized flashing/accessories
- Consider incorporation of green roof
- Windows in poor condition due to failed seals and should be replaced
- Consider removal of the composite panels and replacement with all new, for a cohesive look, or another product, like aluminum composite or wood, for a face lift



Image source: Cohasset Education Foundation

Joseph Osgood Elementary School

Summary - Physical Building Evaluation

Building Exterior

New

- ✓ Exterior wall panels clean with no stains
- ✓ Brick includes adequate mortar and control joints
- ✓ Energy efficient windows with sun control devices
- ✓ Light-colored roof for limited heat gain

*Hingham Middle School
Hingham, MA*









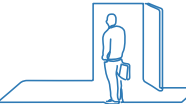



Cohasset Middle-High School

Summary - Educational Program Evaluation

Average score:
Critical
1.7
Cohasset Middle-High School

Average score:
Not Critical
5.0
Deer Hill Elementary School

Average score:
Not Critical
5.6
Joseph Osgood Elementary School

Design Patterns	Cohasset Middle-High School	Deer Hill Elementary School	Joseph Osgood Elementary School
 Classroom Size/ Flexibility	Core academic classrooms undersized and lacking adequate amenities	Core academic classrooms acceptable in size and quantity	Core academic classrooms acceptable in size and quantity
 Academic Neighborhoods	Desired for middle school, but not currently possible given cluster of science classrooms	Building organization amenable to integration of academic neighborhoods	Building organization amenable to integration of academic neighborhoods
 Project-Based Learning Labs	HS wood shop and MS STEM classroom are only spaces; lack integration in academic wings, amenities, and square footage	STEM classroom appropriately sized and opportunities to expand art and music possible, or utilization of courtyard	Collaboration rooms are appropriately sized an integrated into academic wings
 Collaboration Space	There are no spaces for collaboration in pairs or small groups, a limited number of conference rooms, and no seminar spaces	Academic wings lack collaboration spaces outside the classroom, but possibility to add within courtyard	All classrooms include direct access to a small group space and the forum fosters interaction
 Display & Visual Connections	There are no visual connections to entries, corridors, into classrooms, through corridors, or to the outdoors; confusing organization	Visual connections through courtyard; could benefit from increased visibility into learning spaces; personalized display throughout	Visual connections to outdoors in all classrooms & corridors; personalized display/ transparency into shared spaces throughout
 Socialization Space	Socialization is difficult due to overcrowding within the social/community spaces, creating disruption and over-stimulation	Community wing and courtyard have opportunities for socialization; classrooms zoned for broadening social skills	Forum, open cafeteria, and group rooms available for socialization ; classrooms zoned for broadening social skills
 Greeting & Gate-keeping	Entries are not obvious (especially for Middle School), limited signage, and no lobby space to accommodate multiple visitors at once	Front entry is obvious from exterior ; administration is adjacent to entry vestibule; lobby and courtyard are welcoming	Front entry is obvious from exterior ; administration is adjacent to entry vestibule; forum creates welcoming entry experience
 Indoor/Outdoor Spaces	Presence of courtyards have potential to contribute more educationally but are inaccessible and overgrown	Presence of courtyard has potential to contribute more educationally and provide an outlet/additional space for learning	Outdoor classroom and gardens at rear of school foster environmental stewardship at young age; should expand further
 Community Resources	Auditorium is outdated, inaccessible, small, and low-functioning; cafeteria is undersized and distant; gym is appropriately sized	Gym, media center, and cafeteria easily accessible for after-hours use if required, with ability to close off academic wings	Media center large/central and forum good for community use , but can't partition separate from core academic for after-hours
 Lifelong Health & Fitness	Gym is adequately sized; multipurpose rooms beneficial but not accommodating for amount of interest in health/well-being	Gym oversized and includes space for activities other than organized sports	Gym undersized , but organized sports not critical at PK-2 age
Educational Program Score (out of 6)	1.7 - critical	5.0 - not critical	5.6 - not critical

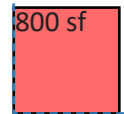
Cohasset Middle-High School

Summary - Educational Program Evaluation

Less than (<) MSBA Guideline

Spaces less than the MSBA guidelines include core academic, administration, guidance, music, vocations, and dining/food service

950 sf



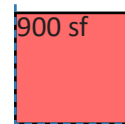
MS Core Classrooms

850 sf



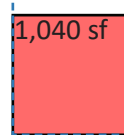
HS Core Classrooms

1,200 sf



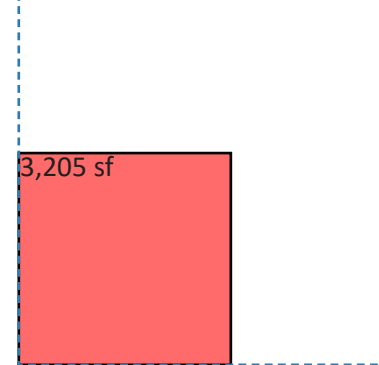
MS Science Classrooms

1,440 sf



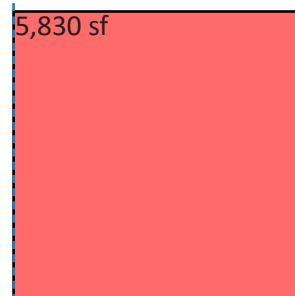
HS Science Classrooms

9,600 sf



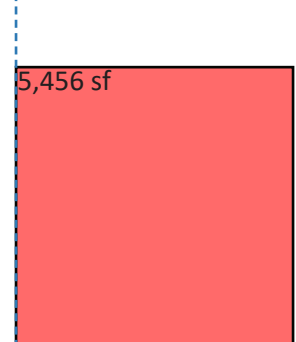
Vocations & Technology

6,564 sf



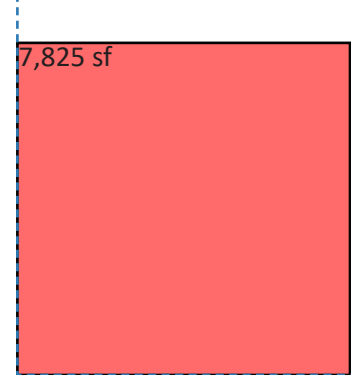
Administration & Guidance

8,529 sf



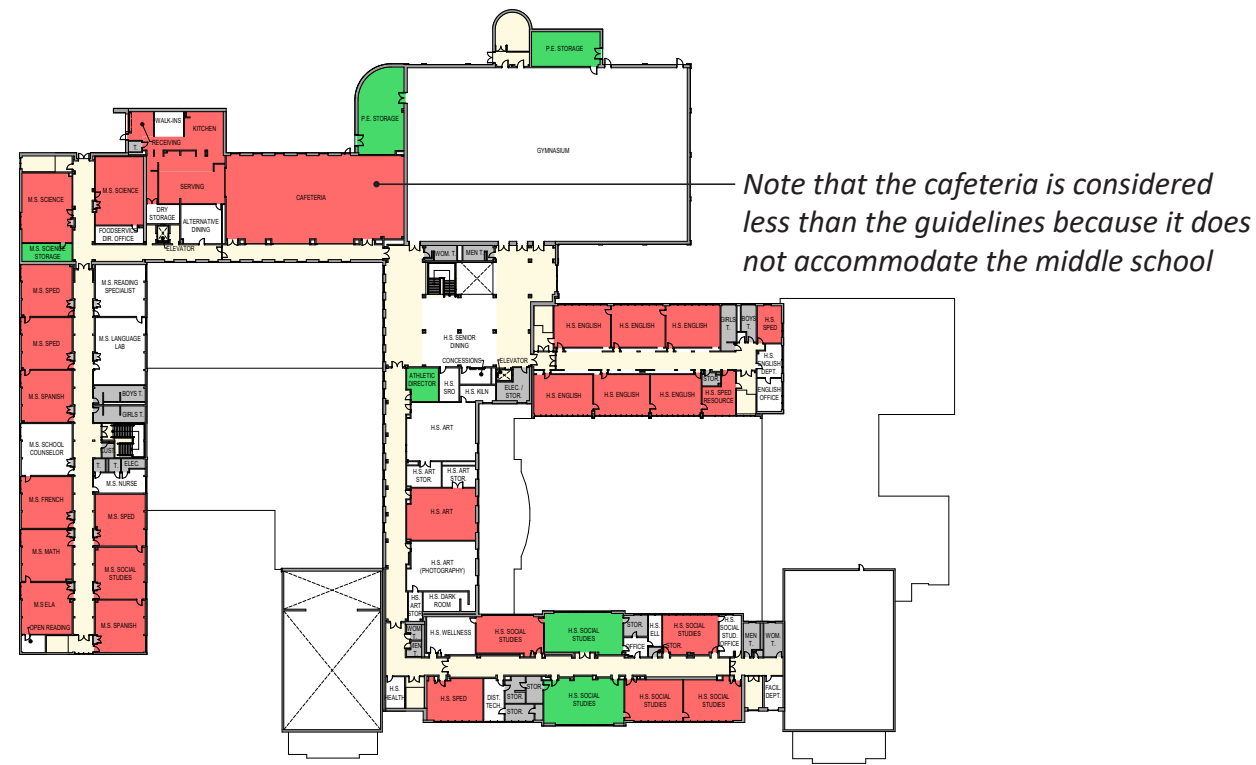
Auditorium/Drama

10,082 sf

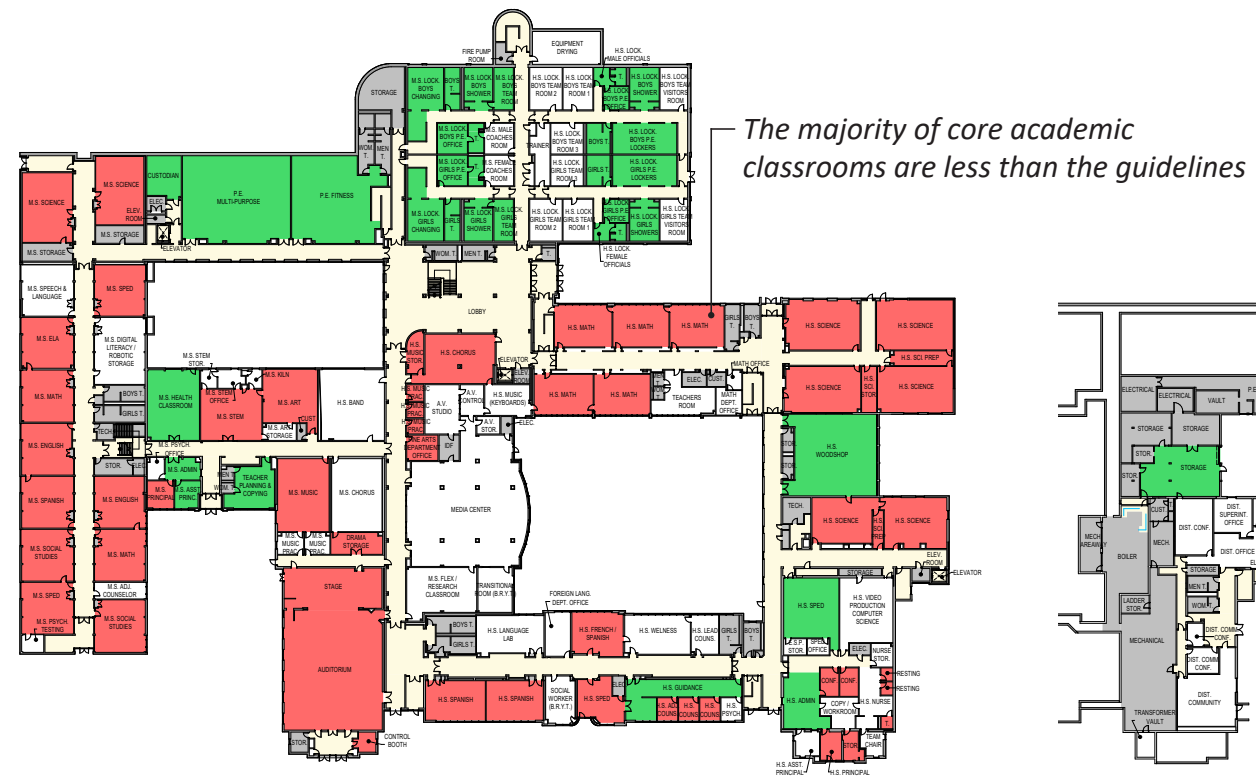


Dining & Food Service

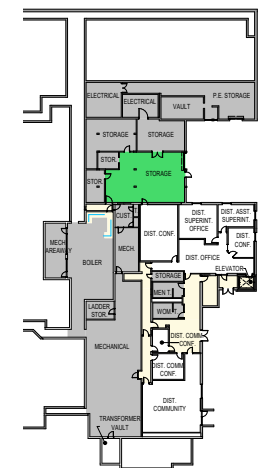
Critical Space Deficiencies



Floor 2 - Program



Floor 1 - Program



Floor 0 - Program

Cohasset Middle-High School

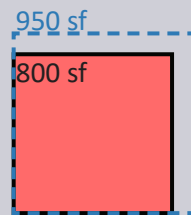
Summary - Educational Program Evaluation



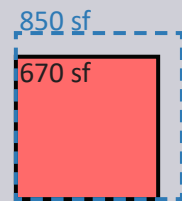
Classroom Size/Flexibility...

FAIL

- **No** appropriately sized core classrooms or options for flexibility
- **No** sufficient storage
- **No** interaction with the outdoors
- **No** ability to logically organize classes into academic neighborhoods at MS level



MS Core Classrooms



HS Core Classrooms



Cohasset Middle-High School

Summary - Educational Program Evaluation



Classroom Size/Flexibility...

PASS

- ✓ Classrooms allow for group work aided by technology or independent work, with adequate teaching surfaces/tools
- ✓ Layouts are structured to include sufficient storage, sink, and furniture that is flexible for varied lesson plans
- ✓ Core classrooms include comforts like daylight, air conditioning, acoustical control, and natural materials

*Kennedy Middle School
Natick, MA*



Cohasset Middle-High School

Summary - Educational Program Evaluation



Academic Neighborhoods...

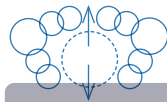
FAIL

- **No** ability to logically organize classes into academic neighborhoods at MS level
- **No** signage or understanding of location within the school
- **No** resources for learning or social interaction available within the academic wing



Cohasset Middle-High School

Summary - Educational Program Evaluation



Academic Neighborhoods...

PASS

- ✓ Facilitated team teaching
- ✓ Sense of community or team within the larger school setting
- ✓ Building organization easy to understand



*Kennedy Middle School
Natick, MA*

Cohasset Middle-High School

Summary - Educational Program Evaluation



Project-Based Learning Lab...

FAIL

- **No** modern project labs for students to gain diverse, hands-on experiences
- **No** difference between core classroom and STEM room at MS level
- **No** vocations other than wood shop at the HS level; preference for courses related to Cohasset's marine location



Cohasset Middle-High School

Summary - Educational Program Evaluation



Project-Based Learning Lab...

PASS

- ✓ Space within each academic neighborhood for science, technology, engineering, art, and math (STEAM)
- ✓ Location allows for interdisciplinary instruction
- ✓ Promotes hands-on learning, collaborative discovery, and independent investigation

*Beverly Middle School
Beverly, MA*



Cohasset Middle-High School

Summary - Educational Program Evaluation



Project-Based Learning Lab...

FAIL

- **No** modern project labs for students to gain diverse, hands-on experiences
- **No** difference between core classroom and STEM room at MS level
- **No** vocations other than wood shop at the HS level; preference for courses related to Cohasset's marine location

9,600 sf

3,205 sf

Vocations & Technology



Cohasset Middle-High School

Summary - Educational Program Evaluation



Project-Based Learning Lab...

PASS

- ✓ Space appropriately sized for large-scale projects
- ✓ Location allows for community access, if necessary
- ✓ Promotes hands-on learning that is directly related to the location and interests of the school community

*Marshfield High School
Marshfield, MA*



Cohasset Middle-High School

Summary - Educational Program Evaluation



Collaboration Space...

FAIL

- **No** appropriately sized collaborative work spaces for either students or staff
- **No** visual relationship between the core classrooms and collaborative space
- **No** furniture to accommodate flexible group settings or varied layouts
- **No** small group rooms, resource rooms, tiered lecture spaces, or learning labs



Cohasset Middle-High School

Summary - Educational Program Evaluation

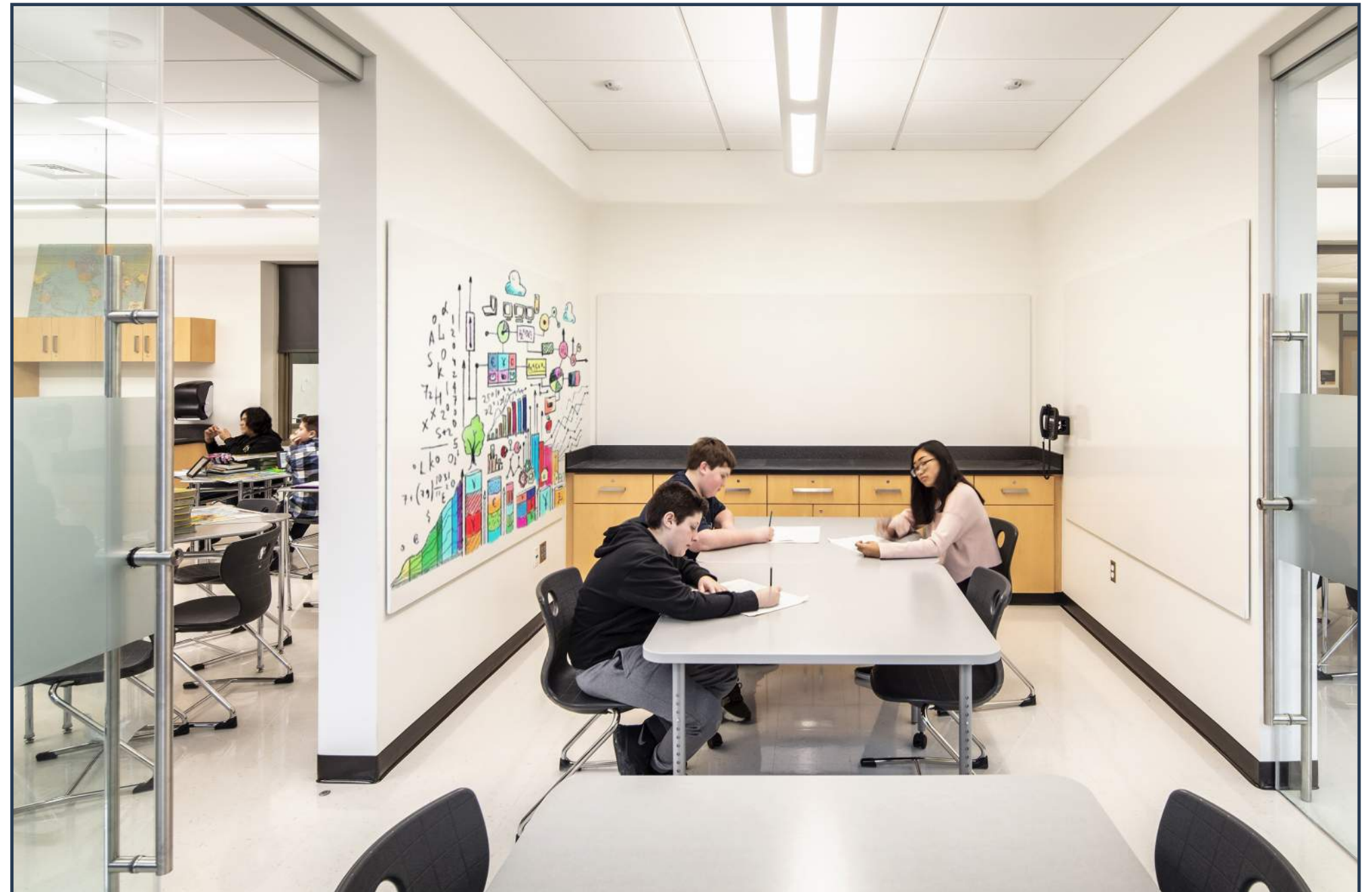


Collaboration Space...

PASS

- ✓ Spacious, available collaboration space that creates a positive link between teacher and student
- ✓ Collaboration spaces that are easily accessed and visible from classrooms
- ✓ Varied work settings that better assist a multitude of learning types
- ✓ Opportunities for solo or group work

*Beverly Middle School
Beverly, MA*



Cohasset Middle-High School

Summary - Educational Program Evaluation



Display & Visual Connections...

FAIL

- **No** sign of connectivity, transparency, or sense of what's happening behind walls
- **No** opportunity for personalization or display; lockers dominate wall space
- **No** sense of identity or excitement for learning within the corridors
- **No** learning on display



Cohasset Middle-High School

Summary - Educational Program Evaluation



Display & Visual Connections...

PASS

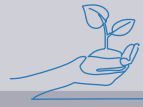
- ✓ Welcoming classroom entries serve to showcase the activity within
- ✓ Student storage is integrated in a complementary yet functional manner
- ✓ Sight lines to the outdoors and into classrooms in a subtle but effective way

*Beverly Middle School
Beverly, MA*



Cohasset Middle-High School

Summary - Educational Program Evaluation



Indoor/Outdoor Connections...

FAIL

- **No** visibility to the outdoors is disorienting
- **No** spaces that engage indoor/outdoor learning connections
- **No** natural daylight



Cohasset Middle-High School

Summary - Educational Program Evaluation



Indoor/Outdoor Connections...

PASS

- ✓ Provides natural daylight critical for mental/emotional well-being
- ✓ Creates warm and welcoming interior environment with the feeling of being outdoors
- ✓ Includes outdoor learning environments

*Abington Co-Located Middle-High School
Abington, MA*



Cohasset Middle-High School

Summary - Educational Program Evaluation



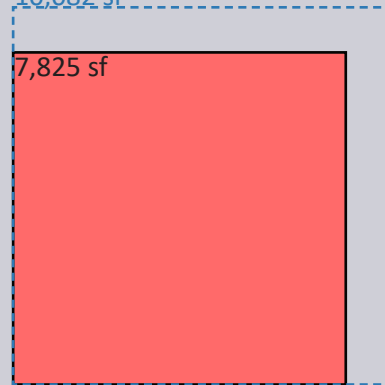
Socialization Space...

FAIL

- **Not** adequately sized
- **No** differentiation (we understand the separated seating due to COVID...)
- **No** natural daylight
- Senior cafe is a good start, but only accommodates one of the six grade levels

10,082 sf

7,825 sf



Dining & Food Service



Cohasset Middle-High School

Summary - Educational Program Evaluation



Socialization Space...

PASS

- ✓ Adequately sized dining and food services with outdoor dining available
- ✓ Includes a diversity of group settings and seating options
- ✓ Adjacent to other social spaces

*Somerset Middle School
Somerset, MA*



Cohasset Middle-High School

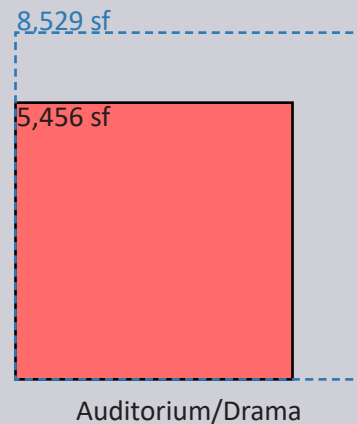
Summary - Educational Program Evaluation



Community Resources...

FAIL

- No acoustical materials of an appropriate sound transmission class
- No flexibility of use or modern aesthetic
- Not appropriately sized for performance use or seminar use



Cohasset Middle-High School

Summary - Educational Program Evaluation



Community Resources...

PASS

- ✓ Offers a variety of uses at both the school and community levels
- ✓ Connected to lobby space for access or assembly
- ✓ Surrounding spaces support larger space
- ✓ Space can be closed off from the rest of the school for after-hours use

*Plymouth South High School
Plymouth, MA*





Because of the inability to meet 21st Century educational needs through minor renovations of the existing building:

Cohasset Middle-High School should be considered for a comprehensive renovation and addition or new construction as defined by the Massachusetts School Building Authority and its core program.

Questions?

