



SMS

SOMERSET MIDDLE SCHOOL

SMS Community Forum #1

Ai3 Architects, LLC

September 25, 2019



School Committee

Andrew Crook, Chair
Christopher Godet, Vice Chair
Victor Machado, Jr.
Michael McDonald
Melissa Terra



School Building Committee

Michael Botelho	Resident & Former School Committee Member
Richard Brown	Town Administrator
Kathleen Byers	Middle School Teacher
Dr. Pauline Camara	Middle School Principal
Carlos Campos	Supervisor of Buildings and Grounds
Chris Godet	School Committee Member
Robert Lima	Resident & Former Water Department Superintendent
Victor Machado	Chairman of Building Committee & School Committee Member
Holly McNamara	Selectman
Steven Medeiros	Resident & Project Architect
Nicole Mello	Middle School Content Coordinator
Cassey Monte	Middle School Teacher
Nick Raffa	Advisory and Finance Committee Chairman
Kevin Scanlon	Resident & Licensed Massachusetts Construction Supervisor
Jeffrey Schoonover	Superintendent of Schools
Ronald Tarro	Director of Business and Finances



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Ronald Tarro	Director of Business and Finances

March 9, 2017

The Town of Somerset submitted a Statement of Interest (SOI) to the MSBA

October 31, 2018

The MSBA invited the Town of Somerset to prepare a

Feasibility Study for the Somerset Middle School

**Somerset has an opportunity to receive a
Grant reimbursement from the MSBA**

to pay costs associated with a new school facility project.



OPM Relevant School Experience

Middle Schools

High Schools

- Mulcahey Elementary School, Taunton MA
- READS Collaborative, Middleboro MA
- Barrington Middle School, Barrington RI
- Westport Middle-High School, Westport MA
- Belmonte Middle School, Saugus MA
- Easton Middle School, Easton MA
- Freetown-Lakeville Middle School, Lakeville MA
- Hyannis Middle School, Hyannis MA
- Chenery Middle School, Belmont MA
- Sharon Middle School, Sharon MA (QC)
- Westerly Middle School, Westerly RI (QC)
- Lincoln K-8 School, Lincoln MA
- Bournedale Elementary School, Bourne MA
- Martin Elementary School, Seekonk MA (SBC)
- Millis Middle-High School, Millis MA

- Somerset-Berkley Regional High School**
- Monomoy Regional High School, Harwich MA
- Oliver Ames High School, Easton MA
- Apponequet Regional High School, Lakeville MA
- Barnstable High School, Barnstable MA
- Seekonk High School, Seekonk MA (SBC)
- East Providence High School, East Providence RI



SBRHS | 9-12 1,000 Students 222,800 SF \$70M / \$82.5M



Mulcahey ES | PK-4 735 Students 119,700 SF \$50M / \$65M



Barrington MS | 6-8 900 Students 143,000 SF \$50M / \$68M

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CGA/Dan Tavares Design Experience

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17

Middle Schools

12

High Schools

- Memorial Middle School
- Wilson Middle School
- Seoul Middle School
- Lincoln Middle School
- Hingham Middle School
- Villanova Street Middle School
- Hamlet Ave Middle School
- Nathan Bishop Middle School
- Lynnfield Middle School
- Quincy Central Middle School
- Quincy Sterling Middle School
- Abington Middle/High School
- Christa McAuliffe Charter School
- Foxborough Regional Charter School
- Beverly Middle School
- East Bridgewater Middle/High School
- Kennedy Middle School

- Somerset-Berkley Regional High School**
- Natick High School
- Norwood High School
- Plymouth North High School
- Plymouth South High School
- Franklin High School
- Marshfield High School
- Abington Middle / High School
- Whitman-Hanson Regional High School
- Westerly High School
- Reading High School
- Hull High School



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Ai3 Design Experience

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Over
50
Professionals



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Ai3 Design Team

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MSBA Process Overview

MSBA partnership with the Town of Somerset



The Massachusetts School Building Authority (MSBA) offered Somerset a Grant opportunity for the following reasons:

- **“Open concept” general classrooms and educational spaces**
- **Lack of educational space for team teaching and collaboration**
- Science classrooms do not meet the state guidelines; most of the 7/8th grade instruction & laboratory experiments are limited to teacher demo and are not student-centered
- Undersized student dining area
- Undersized Library Media Center
- **Lack of special education space for remedial and tutorial programs**
- SPED services requiring separate areas are being delivered in the classroom
- **Elementary schools are at or above enrollment capacity**
- **Poor and/or ineffective acoustics within the instructional classrooms and team teaching spaces**
- SPED sub-separate classroom for autistic children does not have separate therapy rooms
- Auditorium is being utilized as educational space
- Lack of student exhibit space
- **Lack of small group work, study, and testing areas**
- Lack of adequate administration and support space
- Lack of integrated project labs
- Lack of collaborative learning spaces

The Massachusetts School Building Authority (MSBA) offered Somerset a Grant opportunity for the following reasons:


- **Condition of existing building infrastructure**
- **Lack of Building Code compliance**
- Lack of Energy Conservation Code compliance
- Lack of Seismic Structural Code compliance
- Lack of modern technology infrastructure at the Somerset Middle School
- **Lack of handicap accessibility (building and site) at the Somerset Middle School**
- Poorly planned building organization
- Inefficient artificial lighting
- Lack of natural ventilation and outdated mechanical systems
- Lack of performance, presentation, and instructional space
- Poorly organized middle school building that deters interdisciplinary or collaborative learning
- **Existing Somerset Middle School does not support modern middle school educational programming**
- Inadequate / inefficient / poorly distributed HVAC systems
- Poor on-site vehicular/bus circulation
- Ineffective stormwater retention system
- Nondescript main entrance
- Lack of outdoor educational spaces (indoor-outdoor connections)

Where does this Grant money come from and has it been provided to other communities?

The money comes from **taxes paid by Somerset residents** and taxpayers throughout the Commonwealth.

1 penny of the State's 6.25% Sales Tax

Your state tax dollars have already been spent in hundreds of local towns for their new schools. Somerset once again has been granted the opportunity to accept state grant money for investment in Somerset's current and future needs!



What are the initial requirements to receive a Grant from the MSBA?

Complete a comprehensive Feasibility Study in collaboration
with the MSBA to determine the
**most fiscally responsible and educationally
appropriate long-term solution.**

Over the past three months,
Somerset has been completing this comprehensive Feasibility Study with
very specific guidance from the MSBA.



Over 1,500 collective hours

of meetings, planning, and discussion by Somerset analysis, investigation, and reporting by the engineering, design, educational team, and the MSBA!

- Haz-Mat Inspection & Report
- Phase 1 Environmental Assessment
- Plumbing Evaluation
- Electrical Evaluation
- Technology Systems Evaluation
- Educational Program
- Visioning Program
- Building Evaluation
- Structural Evaluation
- Heating & Ventilation Evaluation
- Space Summary Spreadsheets
- Site Evaluation
- Geotechnical Investigations
- Site Utility Review
- Permitting Review
- Comparison Matrix
- Sustainable Design Review



Upcoming Milestones & Dates



Somerset Middle School Schedule Overview

1. Feasibility Study Phase

Preliminary Design Program (PDP)

(December 2019 SBC Vote to approve submission to the MSBA)

→ **DEC. 2019**

Preferred Schematic Report (PSR)

(April 2020 SBC Vote to approve submission to MSBA)

→ **APR. 2020**

2. Schematic Design Phase (SD)

(October 2020 SBC Vote to approve submission to MSBA)

→ **OCT. 2020**

3. Town Meeting Vote & Referendum

→ **NOV. 2020**

4. Project Scope & Budget and Project Funding Agreements

→ **2021**

5. Design Development, Construction Documents and Bidding

→ **2021**

6. Construction Completion

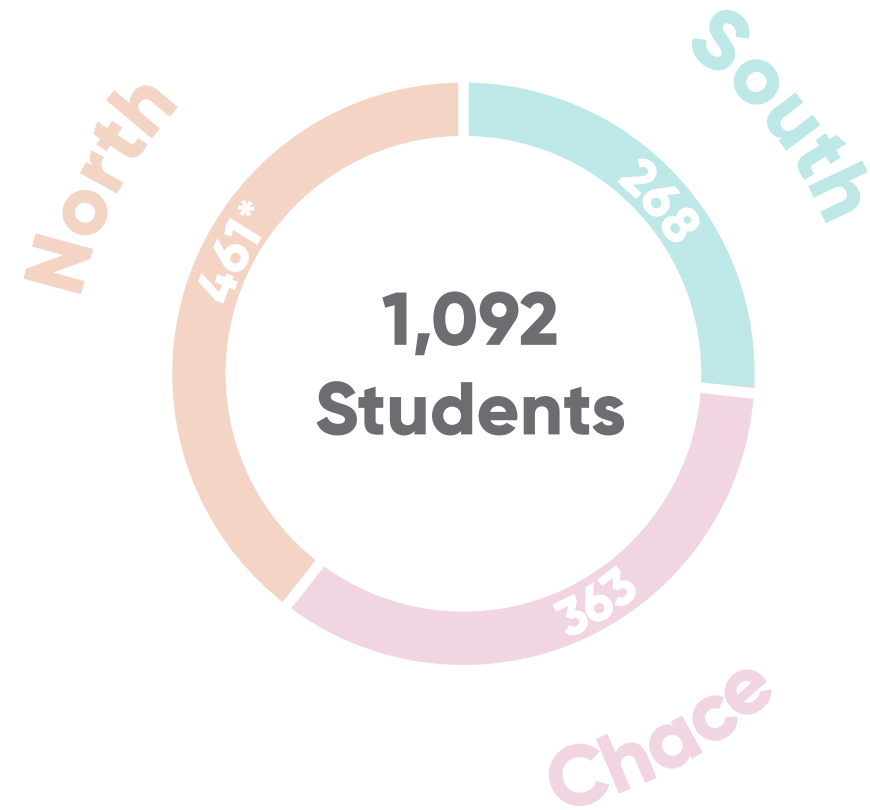
→ **2023**



Somerset Elementary Schools Analysis

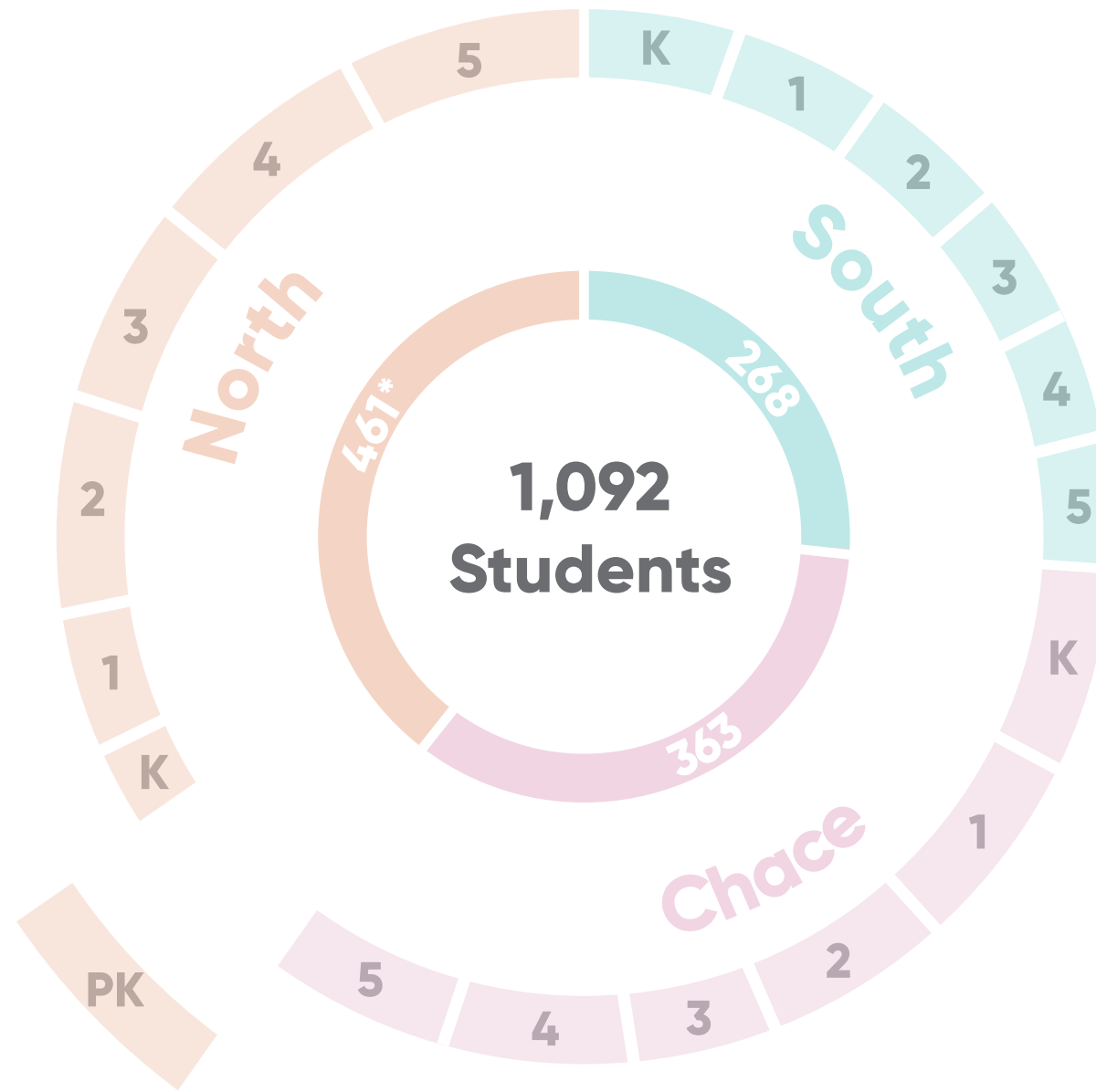


What is the current enrollment at each elementary school?



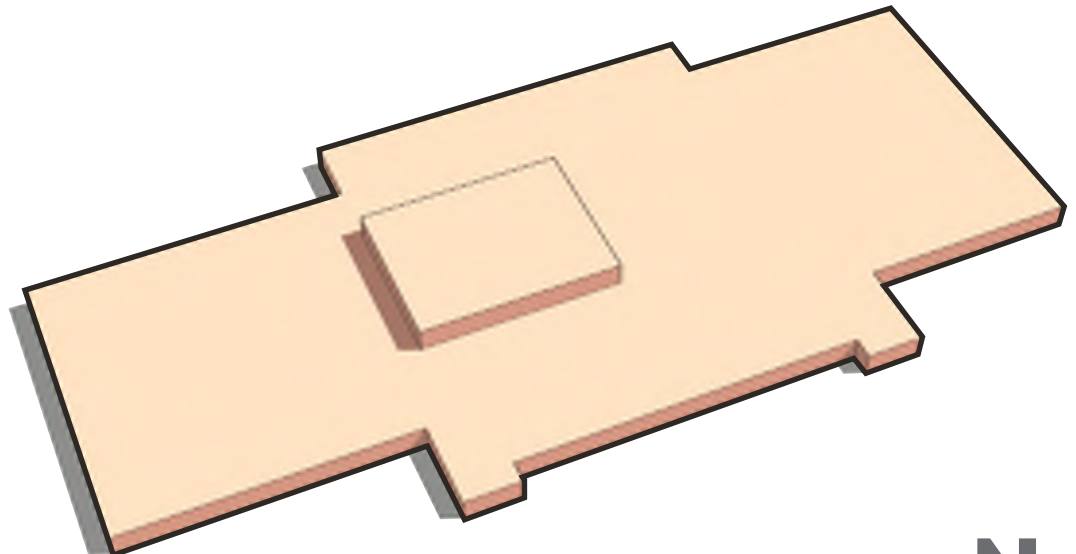
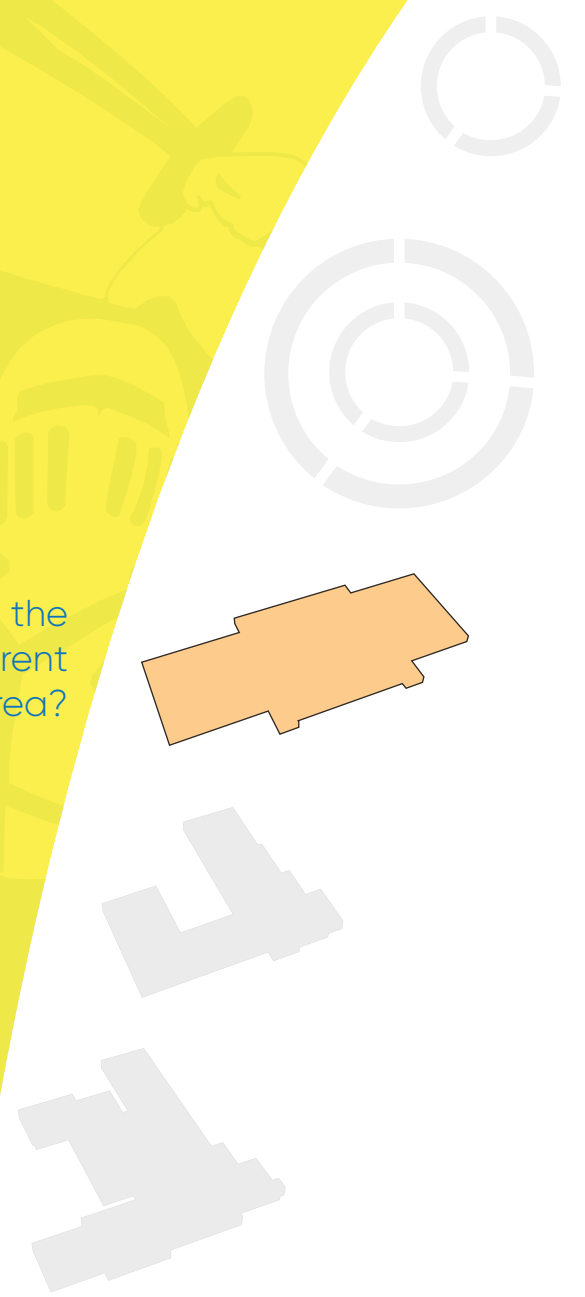
*Excluding pre-kindergarten population - **38 students.**

How are the grades currently distributed at each elementary school?



*Excluding pre-kindergarten population - 38 students.

What are the schools' current Gross Floor Area?

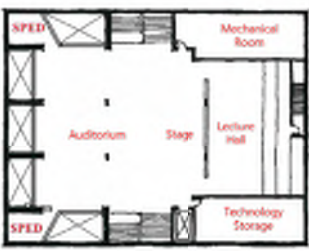


North

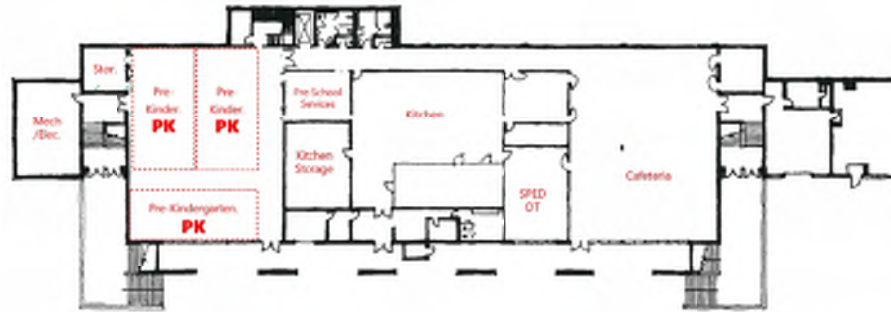
Current GFA	137,300
Non-Educational Space	21,600 GSF
Educational Space	115,700 GSF

North

How are the grades currently distributed at each elementary school?



Library
Upper Level



Lower Level



Main Level

- 4.5 Pre-K Classes
- 2 Kindergarten Classes
- 3 Grade 1 Classes
- 4 Grade 2 Classes
- 4 Grade 3 Classes
- 4 Grade 4 Classes
- 4 Grade 5 Classes
- *21 Total General Classrooms
- *11 Interior classrooms **WITHOUT** natural daylighting or views to the outside.

North

K - 5th Grade

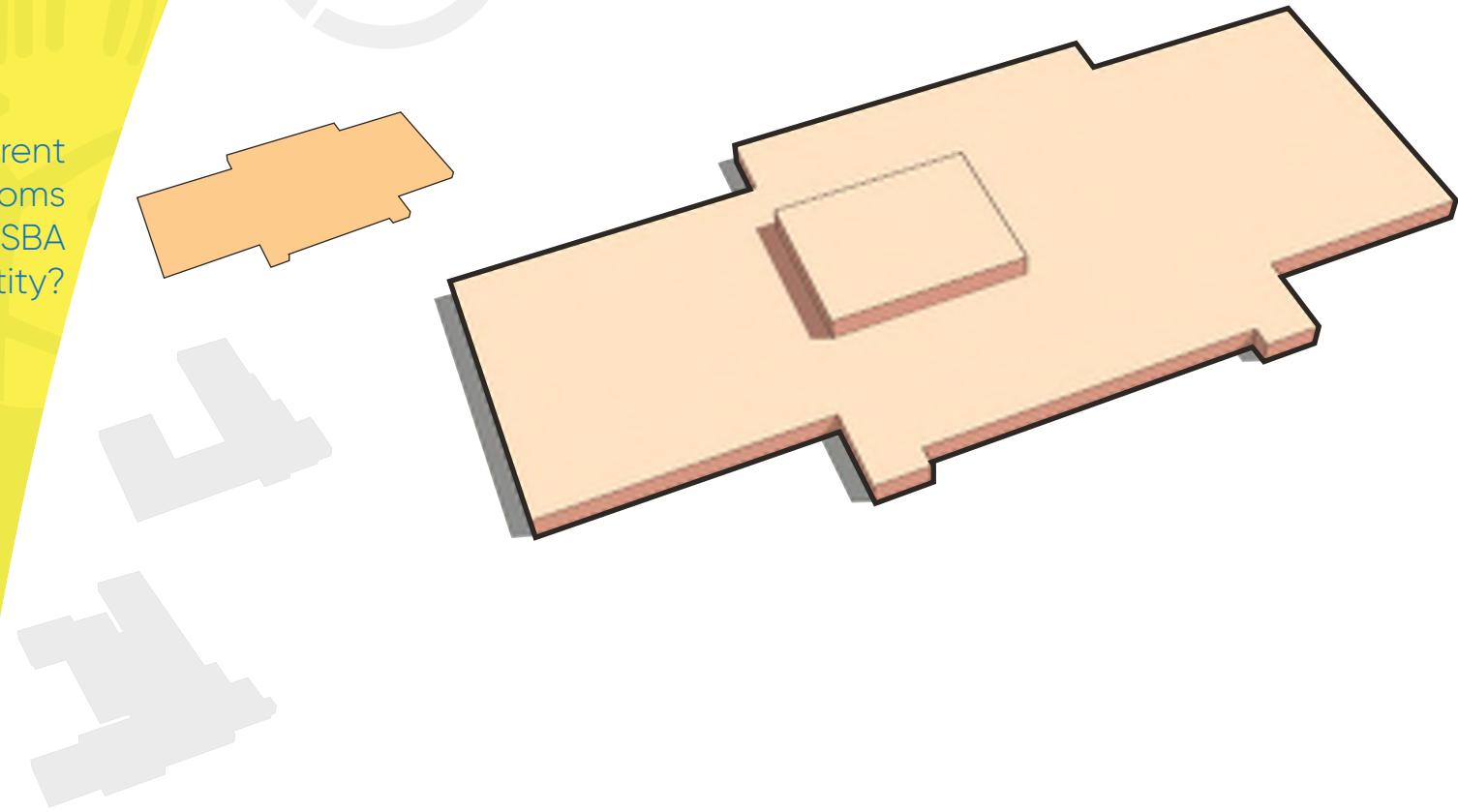
Current Enrollment **461**
w/o Pre-K

MSBA Recommended
Quantity of
General Classrooms **22**

Current Quantity of
General Classrooms **21***

District Classroom Policy Average **20-22**

How do the current quantity of classrooms compare to MSBA recommended quantity?



***11** Interior classrooms **WITHOUT** natural daylighting or views to the outside.

North

K - 5th Grade

Current Enrollment **461**
w/o Pre-K

MSBA Recommended
Quantity of
General Classrooms **22**

OVERCROWDED

Current Quantity of
General Classrooms **21***

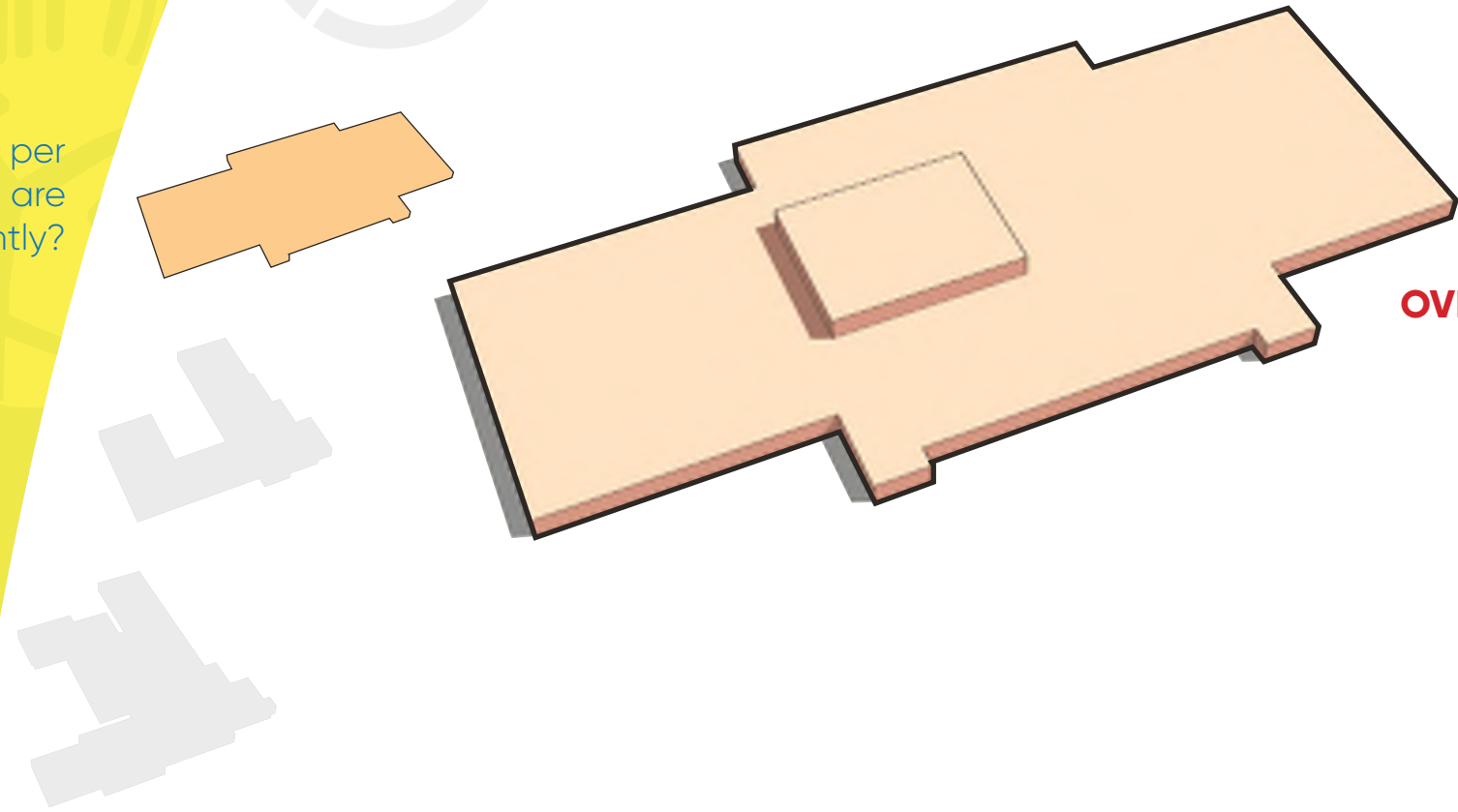
District Classroom Policy **Average 20-22**

Current Average Pupils per
Classroom **24**

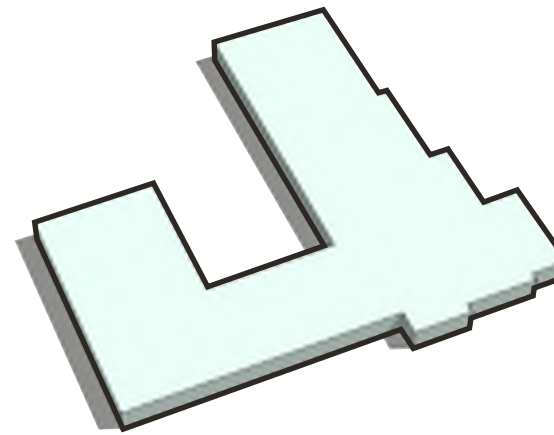
OVERCROWDED

*11 Interior classrooms **WITHOUT** natural daylighting or views to the outside.

How many pupils per classroom are there currently?



What are the schools' current Gross Floor Area?



South

Current GFA **29,900**

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South Elementary School

Current GFA: 29,900

South

How are the grades currently distributed at each elementary school?



Main Level

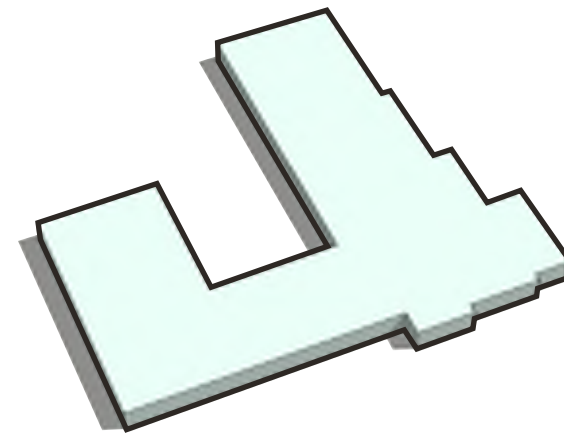
- 2 Kindergarten Classes
- 2 Grade 1 Classes
- 2 Grade 2 Classes
- 2 Grade 3 Classes
- 2 Grade 4 Classes
- 2 Grade 5 Classes

- 12 Total General Classrooms

South

K - 5th Grade

Current Enrollment	268
MSBA Recommended Quantity of General Classrooms	13
Current Quantity of General Classrooms	12
District Classroom Policy	Average 20-22



How do current
quantity of classrooms
compare to MSBA
recommended
quantity?

South

K - 5th Grade

Current Enrollment **268**

MSBA Recommended
Quantity of
General Classrooms **13**

OVERCROWDED →

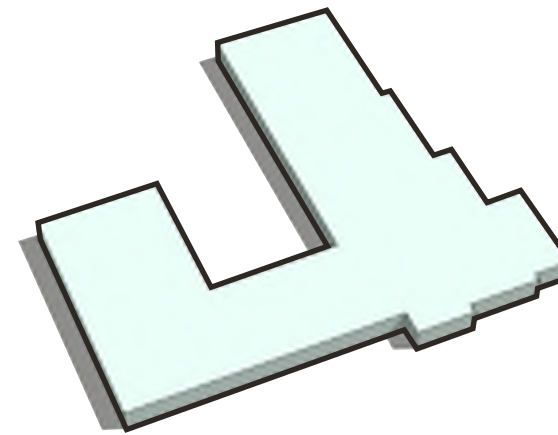
Current Quantity of
General Classrooms **12**

District Classroom Policy Average **20-22**

Current Average Pupils per
Classroom **21**

AT CAPACITY ↗

How many pupils per
classroom are there
currently?

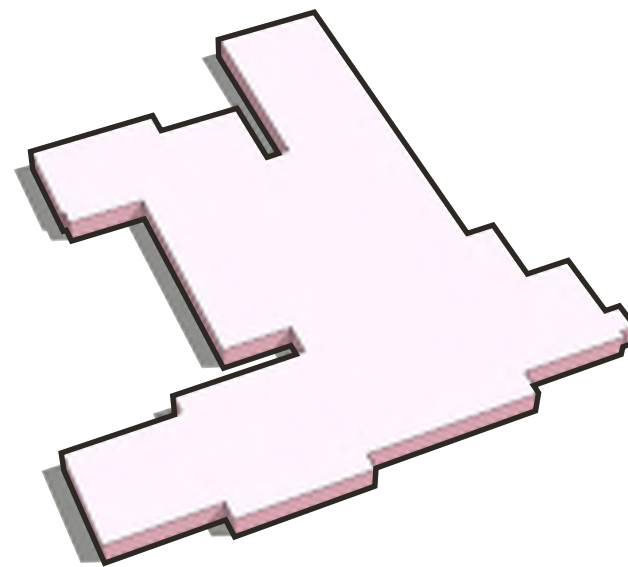
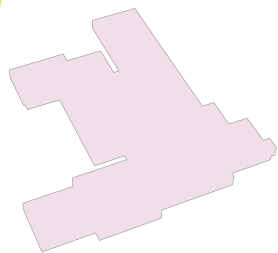


What are the schools' current Gross Floor Area?

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Chace Elementary School

Current GFA: 53,800



Chace

Current GFA

53,800

Chace

How are the grades currently distributed at each elementary school?



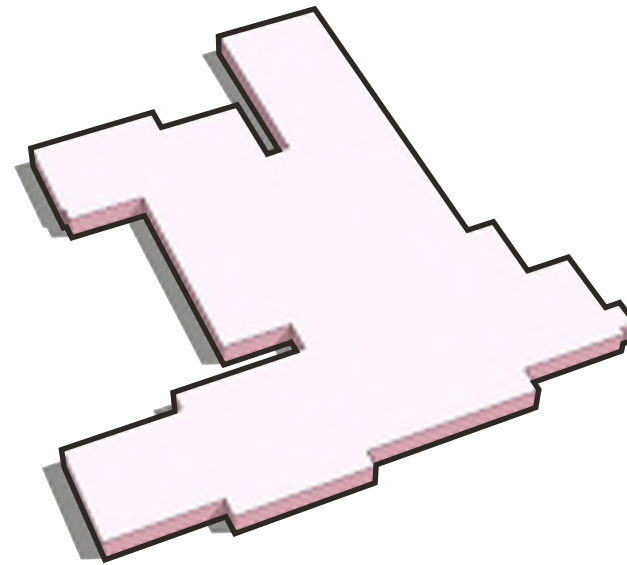
Main Level

- 3 Kindergarten Classes
- 3 Grade 1 Classes
- 3 Grade 2 Classes
- 2 Grade 3 Classes
- 3 Grade 4 Classes
- 3 Grade 5 Classes
- 17 Total General Classrooms

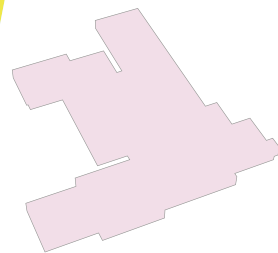
Chace

K - 5th Grade

Current Enrollment	363
MSBA Recommended Quantity of General Classrooms	18
Current Quantity of General Classrooms	17
District Classroom Policy	Average 20-22



How do current
quantity of
classrooms compare
to MSBA
recommended
quantity?



Chace

K - 5th Grade

Current Enrollment **363**

MSBA Recommended
Quantity of
General Classrooms **18**

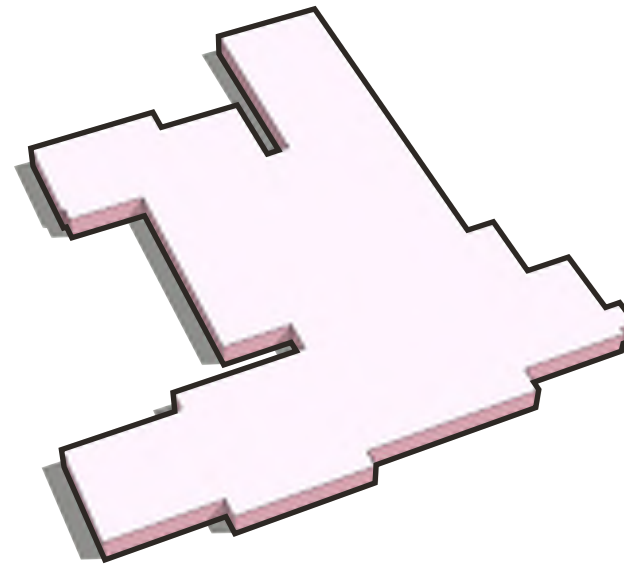
OVERCROWDED

Current Quantity of
General Classrooms **17**

District Classroom Policy Average **20-22**

Current Average Pupils per
Classroom **22**

AT CAPACITY

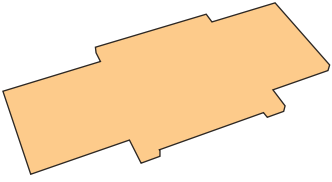


How many pupils
per classroom are
there currently?

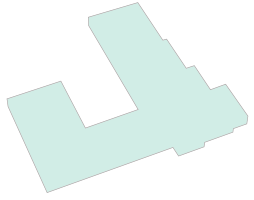
What is the current quantity of 5th grade students for each elementary school?



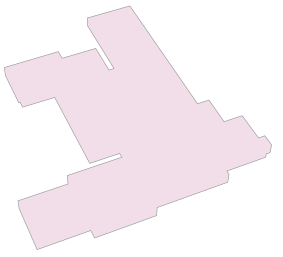
5th Grade Student Population



North



South



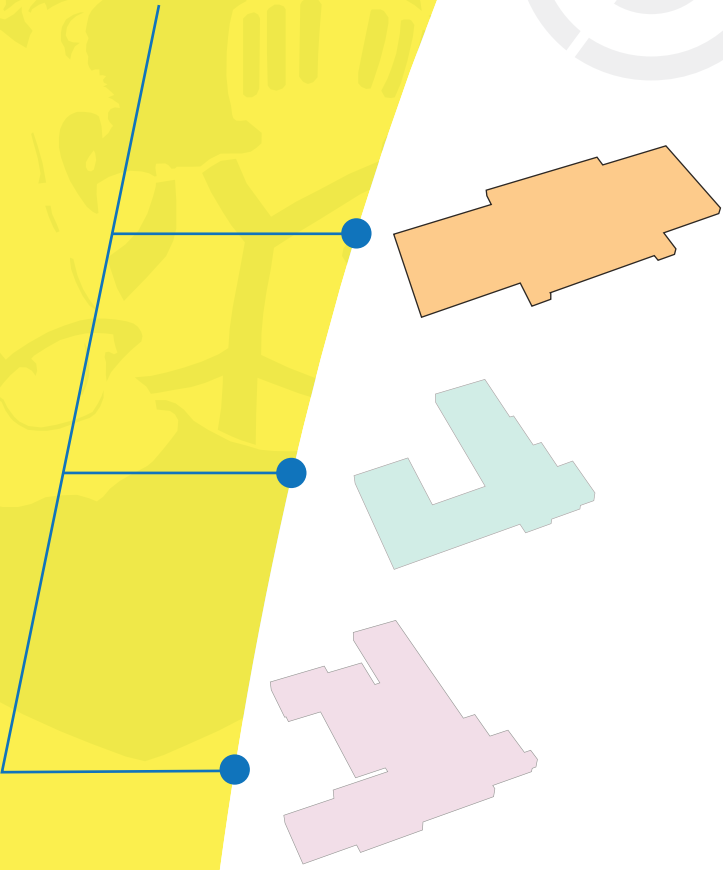
Chace

Current Enrollment

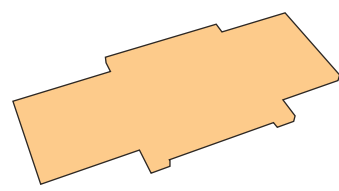
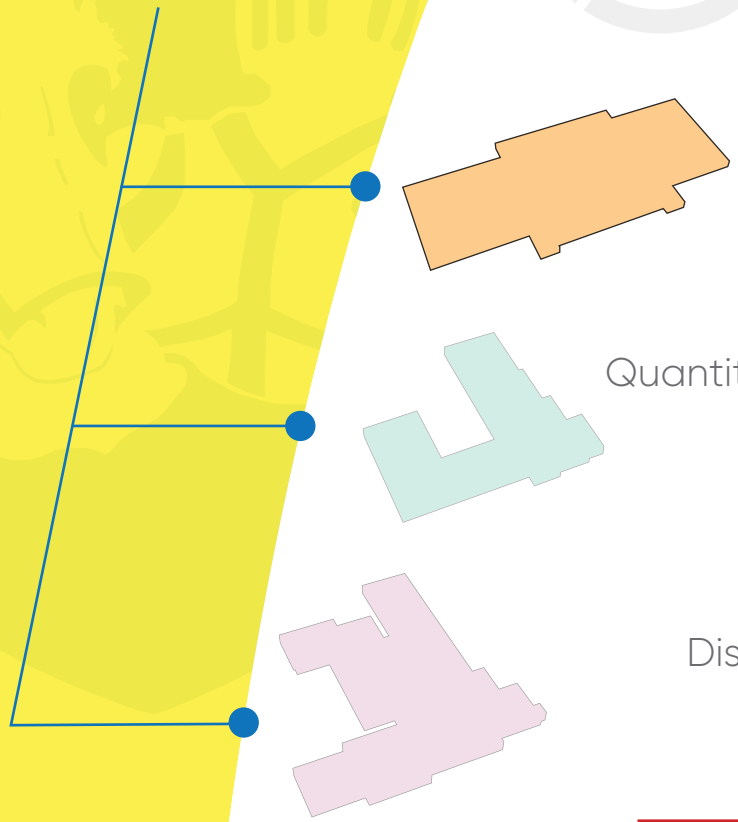
99

47

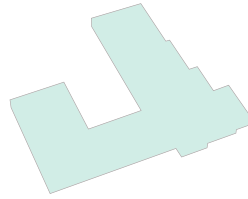
64



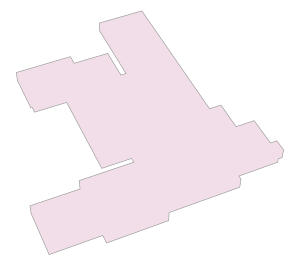
What would the future capacity for each Elementary School be with 5th grade relocated to the Middle School?



North



South



Chace

	5th Grade Population		
Current Enrollment	99	47	64
K - 4th Grade			
Adjusted Enrollment	362 <small>w/o Pre-K</small>	221	299
MSBA Recommended Quantity of Gen. Classrooms	18	11	15
Current Quantity of General Classrooms	21*	12	17
District Classroom Policy	<small>Average</small> 20-22	<small>Average</small> 20-22	<small>Average</small> 20-22
Potential Future Capacity <small>(pupils)</small>	60-66 <small>pupils</small>	20-22 <small>pupils</small>	40-44 <small>pupils</small>

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Somerset Elementary Schools
Potential Future Capacity

***11** Interior classrooms **WITHOUT** natural daylighting or views to the outside.

Potential ADVANTAGES of a 5-8 middle school model:

1. Provides **relief to the three elementary schools'** educational programs and facility space challenges.
2. The 5-8 model would provide **opportunity for fifth graders** to be in classes that are structured to the student's teaching and learning styles; instead of one to four 5th grade classrooms in each school, the total of eight to ten 5th grade classrooms would be in one school.
3. The 5-8 model would provide opportunity for 5th graders (academics structured to the student's ability level) to **take higher level courses** without traveling to another school.
4. 5th grade faculty and staff would be located in the same building, providing an **opportunity for collaboration, common planning time, and sharing of educational resources.**
5. The 5-8 model allows 5th grade teachers to collaborate more closely with 6th-8th grade teachers, **enhancing the ability of teachers to work on vertical teams** to increase student achievement.
6. The 5-8 model extends to the 5th grade students **much-needed support services such as language, technical education, art, music, and other specialties** that are part of the Town of Somerset's middle school curriculum offerings.
7. Research shows that transitioning to middle school is extremely difficult for students who are already undergoing social, emotional, and physical changes. Placing 5th grade in the middle school **helps ease student transition from an elementary school to a middle school environment**; reducing transitional stresses for the children at the elementary school level, with 5 years in elementary (K-4), 4 years in middle (5-8), and 4 years in high school (9-12).

Potential ADVANTAGES of a 5-8 middle school model (continued):

8. The 5-8 model would group pupils who are more alike than either elementary or secondary age pupils. This middle age group would need personal attention which they would not receive sufficiently in any of the other organizations. These students are at a pre-adolescence stage and would benefit to be together with excellent teaching personnel.
9. Students in a 5-8 model are at an academic age where they need reinforcement and extension of skills through hands-on learning and application. **Students would be exposed to various areas of specialization at an earlier age in an exploratory basis.** Specialists would be available to help 5th graders branch out easier than they might be able to in an elementary school. 5th graders would be provided the opportunity to use specialized facilities such as virtual reality labs, engineering/robotics labs, industrial arts shops, science labs, and collaboration space.
10. The 5-8 model would provide an orderly transition from elementary school methods and materials to secondary school methods, materials, and complete departmentalization (i.e. from self-contained to a departmentalized environment).
11. 5th grade students would have the opportunity to **participate in middle school athletic programs.**
12. The 5-8 model would provide **5th grade students the opportunity to participate in middle school music programs**, thereby allowing the District to create 5/6 band and 7/8 band programs and establish an entry music program for 3rd grade students.
13. The 5-8 model would result in a **reduction in transportation costs.**

Potential DISADVANTAGES of a 5-8 middle school model:

1. Some 5th graders might be better suited in the protective environment of an elementary school (sense of security) than in a middle school with a 5-8 grade structure.
2. Social and emotional changes are a challenge for middle school age students (11-14 years old).
3. The 5-8 model assumes that the maturation patterns of 5th grade pupils are more like those of the 6th, 7th, and 8th graders than they are like those of the 3rd and 4th graders.
4. Additional specialized faculty and staff would be required at the middle school in a 5-8 grade structure.



Existing Conditions Analysis



Non-compliant (energy code) single pane exterior window systems

Exterior Brick veneer water infiltration, movement, and failure



Inadequate bearing of brick on steel lintel

Brick Spalling



Existing Middle School Building Conditions

Exterior



Existing Middle School Building Conditions

Exterior





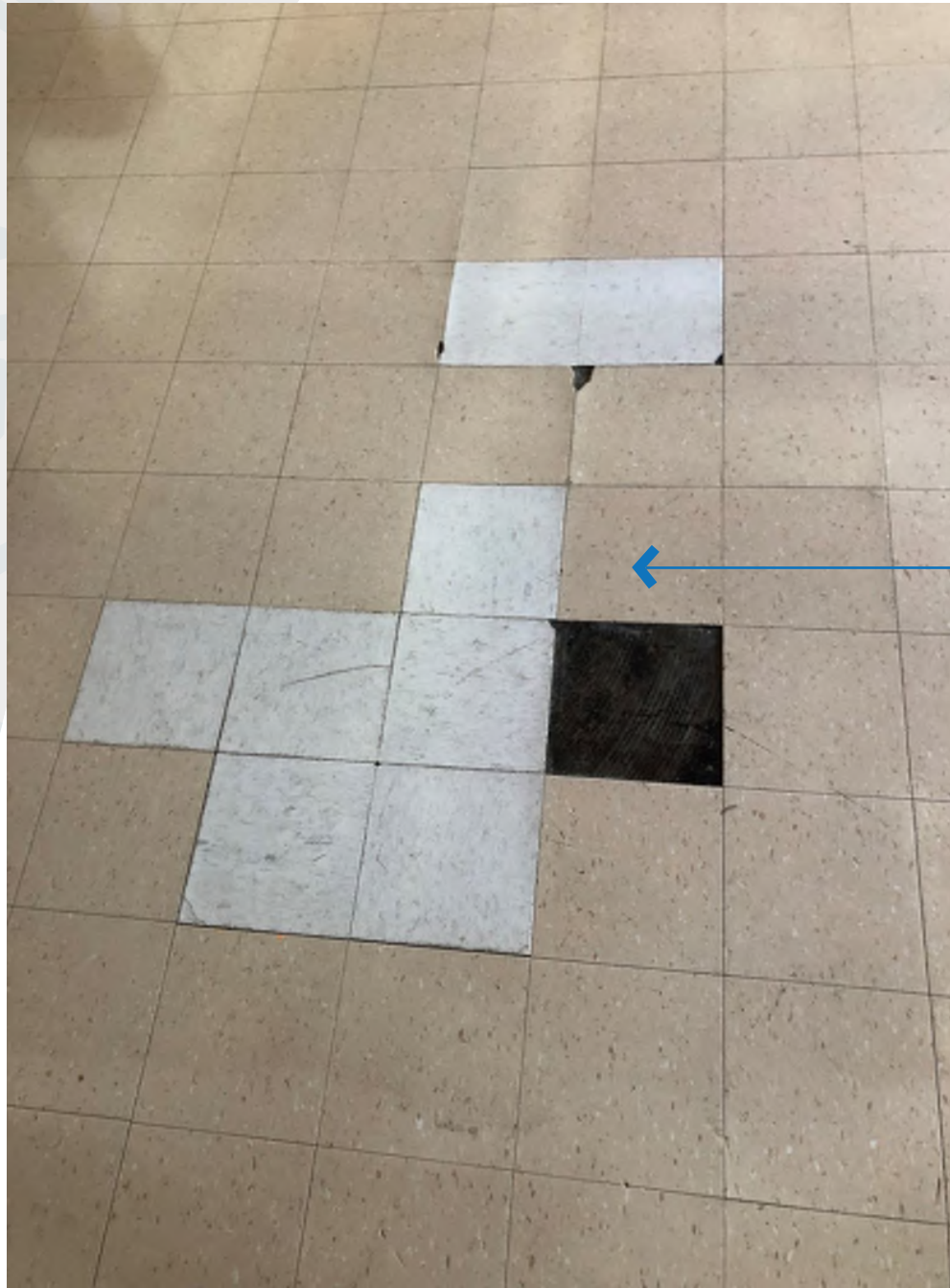
Existing Middle School Building Conditions

Exterior



Existing Middle School Building Conditions

Interior



Asbestos
Containing Floor &
Adhesive Material
(ACM)

Moisture issues
resulting in
delaminating floor
material





Existing Middle School Building Conditions

Interior



Existing Middle School Building Conditions

Interior



Non-compliant (ADA)
lockers and benches



Water infiltration resulting
in plant material growth

Water infiltration, floor
buckling, and material failure

Existing Middle School Building Conditions

Interior



Non-compliant
(ADA) Ramp (slope,
handrails,
entries, etc.)

Non-compliant
(ADA) HC sink &
accessories



Existing Middle School Building Conditions

Interior



Non-compliant
(ADA) clear
opening

Non-compliant
(ADA) HC sinks &
accessories



Existing Middle School Building Conditions

Interior



Non-compliant (ADA) drinking fountain

Non-compliant (ADA) Fire Extinguisher "Cabinet"

Non-compliant (ADA) urinals

Non-compliant (ADA) HC stalls & accessories



Existing Middle School Building Conditions

Interior



Non-compliant (ADA) sink and faucets

Non-compliant (ADA) base cabinets

Base cabinet & countertop material breakdown





Existing Middle School Building Conditions

Interior



Existing Middle School Building Conditions

Interior



Existing Middle School Building Conditions

Interior



Existing Middle School Building Conditions

Interior



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21st Century Middle School Design

Multi-Use Student Commons Environments



Indoor/Outdoor Connections



Greenhouse/Science



What is 21st Century Middle School Design?

Collaborative Teacher Workrooms



Project Based Learning Labs



Expressed MEP Systems





Small learning communities and collaborative student opportunities



.....outdoor learning courtyard - indoor / outdoor connections



music / performing arts theaters



distance learning / lecture halls



TOWNIE PRIDE

Multifunctional performance / lecture spaces







Instructional classroom REDEFINED: Collaborative Huddle Spaces



GREEN WAVE CLUB



Display of student artwork - personalization of space



TRANSPORTATION

From the European settlement of Abington, the local British American population established the Suburban Trolley along present day Adams and Washington Streets, and the first subway system was built across that path. The Old Colony Railroad arrived in Abington in 1843, connecting Boston and Plymouth, and made it possible for the shoe industry to flourish. Abington was also intersected by the Abington and Rockport Street Railway system. Just a few years later, Abington Suburban Street Railway in 1891, a trolley system which had also linked Plymouth and Abington, and made it possible for the shoe industry to flourish. Abington was also intersected by the Abington and Rockport Street Railway system. Just a few years later, Abington Suburban Street Railway in 1891, a trolley system which had also linked Plymouth and Abington, and made it possible for the shoe industry to flourish.

ISLAND GROVE

200,000 ROOTS

THE CIVIL WAR

Abington was a significant site during the Civil War, with many soldiers and officers buried in the area. The town was also a center of military production, with many factories and workshops producing weapons and supplies for the Union Army.

Below is a sampling of products which reference Abington, MA and represent the historical significance of transportation through the years.

Below is a sampling of products which reference Abington, MA and represent the historical significance of transportation through the years.

Below is a sampling of products which reference Abington, MA and represent the historical significance of transportation through the years.

Incorporate History of Somerset



Independent reading areas



















CADIGAN HALL



Al Materie
De Cultura
• ST. IGNATIUS LOYOLA



SOMERSET MIDDLE SCHOOL

Somerset Middle School Site



Somerset Middle School Site
26.2 Acres of Land

Original Middle School,
open 1965



Somerset Middle School Site
26.2 Acres of Land

● Addition,
open 1969

● Original Middle School,
open 1965



Somerset United Methodist Church

South Elementary School

Somerset Middle School

Read Street

Brayton Avenue

St. John of God Church

St. John of God Rectory

Joe's Greenhouse

Mario's Music

Next Steps & Discussion

- 1** Development of Conceptual Site & Building Plan Options
- 2** Final Evaluation of Existing Conditions
- 3** Evaluation of Cost Alternatives



For more info, please go to:

<http://www.somersetschools.org/District-Info/Somerset-Middle-School-Building-Project/index.html>

Follow link off Somerset Public Schools Website

Community Forum #2: November 13, 2019

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