Concord Middle School
Facilities Planning
Overview

• We face a time sensitive planning challenge related to both middle schools

• The buildings, infrastructure, and equipment are all well beyond their useful – and reliable – life

• We applied for MSBA support in 2017 and 2018 and were declined both times – lots of competition

• We are faced with a difficult choice:
  • Reapply and risk being declined again
  • Move ahead on our own
Overview

• The question comes down to cost and control
  • Self-funding will be more expensive – though increased costs could be offset by avoiding escalations that are likely if we are not approved by MSBA in 2019
  • Waiting for MSBA approval is risky - systems failures and cost escalations are likely
  • Self-funding would allow us to build a school that better meets our educational needs and programs

• We have attempted to describe all the issues in the slides that follow
Caveats

- We have not designed a building, but we have early input from architects Finegold Alexander
  - One building of ~125,000 SF to be located at Sanborn site
- All cost estimates are based on best available data
  - Cost per SF of current MSBA projects
  - Cost escalation projections from MSBA
  - Cost of maintaining/replacing roof, plumbing, septic by school department
- At this point, there are more unknowns than knowns
Agenda

• Building Histories
• Current Conditions
• Process and Timeline
• Project Costs
• Cost of Waiting
• Benefits of Self-Funding
Building Histories

Sanborn – 55 Years Old

- 84,438 square feet on 31.29 acres
- 1964 – Sanborn opens
- 1989 – Elevator and ADA upgrades
- 1987 – Roof replaced
- 2003-05 – Windows replaced
- 2015 – Boilers and water heaters replaced
- 2004, 2010, 2016 – Modular buildings added with 2 classrooms each
- Will accommodate all 7th and 8th grade students in 2019-2020 academic year

Peabody – 49 Years Old

- 56,388 square feet on 7.99 acres
- 1968 – Peabody designed as Open-Concept Elementary School
- 1970 – Peabody opens as CMS overflow
- 1994 – Elevator and ADA upgrades
- 1999-2002 – Roof replaced
- 2003-05 – Windows replaced
- 2014 – Boilers and water heaters replaced
- Will accommodate all 6th grade students in 2019-2020 academic year
2016 - Facilities Planning Committee Formed

- Created Committee of 15 community members
- Met monthly
- Held public forums
- Finegold Alexander Architects asked to answer the following:
  
  - What would it take to remain in the current buildings for 10 years?
  - What are options and estimated costs for a renovation project?
  - What are options and estimated costs for a new building?
Building Histories

2017 - Finegold Alexander Architects Summary Findings

**Current Conditions:**

Peabody and Sanborn Conditions are Deteriorated and Obsolete

- Although well-maintained, they are at the end of their lifespan

Two Campus Configuration is Inefficient and Expensive

- “Overflow” status is not sustainable

Current Situation Creates Struggle for the School Community

- Results in sub-optimal educational experience

**10-Year Outlook:**

Estimated cost to remain in current buildings for 10 years and attain appropriate educational environment: $34-47 Million
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Current Conditions

- Operational inefficiency
- Outdated infrastructure
- Aging equipment
- Overcrowded buildings
- Educational shortcomings
Operational Inefficiency

- Challenge to maintain educational and service equity between two buildings
- Requires redundant positions
- Expensive utility costs due to outdated systems
- Excess operational expenses of $548,000 per year to maintain two buildings
Outdated Infrastructure

- Original Heating lines, Plumbing lines, and Electrical Systems
- Sarnafil PVC roofs are at end of projected lifespan
- Septic systems are over 50 years old
- Ventilation and air circulation are nonexistent
- Hazardous materials such as asbestos, mercury and PCBs are in both buildings
- Neither building has a fire suppression system
- Concrete is flaking off the Peabody building - final stages of concrete failure
Outdated Infrastructure

OUTDATED KITCHEN VENTILATION

OUTDATED PEABODY GYM VENTILATION

CORRODED HEATING PIPE

OUTDATED VENTILATOR
Outdated Infrastructure

Corroding plumbing and heating lines

Asbestos covered ductwork
Outdated Infrastructure

SARNAFIL PVC ROOF DETERIORATING FROM AGE AND UV EXPOSURE. THE RISK OF A LARGE SEAM FAILURE INCREASES ANNUALLY.
Aging Equipment

- Most mechanical and electrical equipment original to buildings.
- Mechanical equipment unreliable and subject to failure.
- No backup generator for power failure.
- Parts often not available.
Aging Equipment

SANBORN EXTERIOR WALK-IN FREEZER

SANBORN CAFETERIA WALK-IN COOLER

WIRED CLOCK SYSTEM NO LONGER OPERATIONAL
Overcrowded Buildings

- 3 modular units at Sanborn
  - Students must continuously exit and enter building
  - Often creates delays in class start times
  - No bathrooms leads to extra time out of class
- Sanborn custodial closet converted to learning space
- Peabody “cafeteria” congested with lockers
- Peabody stairwell congested between classes
Overcrowded Buildings

SANBORN - CUSTODIAL CLOSET RECONFIGURED TO A LEARNING SPACE

MODULAR CLASSROOMS

MODULAR CLASSROOMS
Educational Shortcomings

Lack of space for...

- 21st century, project-based learning (STEAM...)
- Interdisciplinary learning
- Breakout spaces
- Grade team implementation
Educational Shortcomings

Imagine...
Team-based spaces for interdisciplinary and project-based learning
(Also maintains “small community” feel.)

An inspiring learning environment leveraging natural light and fresh air
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Process and Timeline

Statement of Interest (SOI)

- Concord Submitted an SOI in 2017 and 2018
- Invitations limited by available funding
- Competitive process based on need and urgency as determined by MSBA
- Out of 70 SOIs submitted to MSBA in 2018, 12 projects were invited to the eligibility period (17%)
- Concord was not invited in 2017 or 2018
- Next Submission Deadline April 2019 for 2021 Construction
Once invited to the MSBA program, the estimated time to project completion is 5-6 years.

Concord was not invited into the MSBA pool in 2017 or 2018.
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Project Cost - Construction

- Average cost for 2019-2020 MSBA middle school projects is $648 per square foot
- 2017 Finegold Alexander study suggests ~125,000 square foot building to deliver our educational program
- Total estimated cost in 2019 is approximately $81 million
- Cost to build a new middle school will increase substantially each year
- Construction cost growth from 2010 to 2016 for MSBA funded projects averaged 6.93% per year
- Similar projects in process are projected at over $90 million
- Given our best timeline, likely cost in $90 million + range
Estimated tax impact of $90,000,000 Middle School

- 4.25% interest, level principal payment, 25 year term
- Average Median Household Tax Impact : $724
- Estimated peak year tax impact: $1,015

2019 Median Household Value : $881,550
2019 Median Tax Bill : $12,482
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Costs of Waiting

Major Infrastructure Failure Risks

Heating lines show signs of corrosion:
- Recent leak at Sanborn
- Caused short term closure to learning spaces
- Risk of failure increases with age
- Total cost to replace heating lines in both buildings: estimated at $1,168,000

Sarnafil PVC roofs at end of projected lifespan:
- Small leaks patched as they occur
- Larger seam failure expensive and disruptive
- Total cost to replace roof in both buildings: estimated at $4,556,000

Septic System over 50 years old:
- Recent back up at Sanborn – took learning spaces offline
- Cost $20,000 to repair
- Total cost to repair or replace septic: estimated at $300,000+

Potential Repair/ Replacement Costs Exceed $6,000,000
Costs of Waiting

Projected Estimates of Waiting 1 year to reapply for MSBA funding

Assumptions
• Acceptance into 2019 MSBA Eligibility (not guaranteed)
• 2-Year delay to Project Completion
• Escalation Costs of 3-7% (based on MSBA current projects)
• 2019 New Middle School Building Cost: 90M

Costs
Escalation Cost (based on MSBA current projects): $5-15,000,000+
Operational Costs: $1,096,000
Capital/ Maintenance Costs: $200,000

TOTAL $6.3-16.3 Million

Potential Additional Costs: $0-6 Million
(due to Infrastructure Failures)

TOTAL COST OF WAITING 1 YEAR: $6.3-22.3 MILLION
Potential Reimbursement

- Reimbursement is based on a town’s “wealth factor”
- CCHS project baseline reimbursement rate was 34.5%
- CCHS project effective reimbursement rate (after exclusions) was 29%
- List of exclusions has continued to grow over time
- Middle Schools likely to have more exclusions – auditoriums, regulation gymnasiums, etc
- CMS project effective reimbursement rate is estimated to be 20-25%
- On a $90m Building, estimated reimbursement is $18-22.5m
- Reimbursement benefit is significantly consumed by waiting
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Benefits of Self-Funding

- Accelerated construction timeline by 1 to 2 years
- Potential savings of $6.3-22.3 million through elimination of cost escalations, operating inefficiencies, and maintenance costs
- School Design that meets the needs of students and teachers
  - *MSBA policy limits auditorium, gym, and other recreational space in middle schools*
  - *Would limit our educational program*
  - *Retro-fitting MSBA designs can increase building costs and future operational costs*
- School Design that enables incremental community value
  - *i.e. Solar panels, LEED certification, Grid Services, Town Shelter, Gym/Recreation Space*
Next Steps

Town Meeting starts Monday April 8
7:00pm

Ballot Vote - TBD
Questions?