#### **MINUTES**

### Green Meadow Building Committee Wednesday, March 8, 2023, 6:30 pm Remote Meeting

Pursuant to Gov. Baker's Executive Order dated March 12, 2020, suspending certain provisions of the Open Meeting Law, G.L. c. 30A sec. 20, the School Committee has modified meeting procedures to ensure the safety of all participants. The public will not be allowed to physically access this School Committee meeting; video and audio will be turned off for the public. This meeting will be held via a virtual meeting (internet) using Zoom Technology.

On July 16, 2022, Governor Baker signed into law An Act Relative to Extending Certain State of Emergency Accommodations, which, among other things, extends the expiration of the provisions pertaining to the Open Meeting Law to March 31, 2023. Specifically, this extension allows public bodies to continue holding meetings remotely without a quorum of the public body physically present at a meeting location, and to provide "adequate, alternative" access to remote meetings. The Act does not make any new changes to the Open Meeting Law other than extending the expiration date of the temporary provisions regarding remote meetings from July 15, 2022, to March 31, 2023.

\*This meeting was held in a "hybrid" format with both in-person and virtual attendees.

### Meeting Called to Order via Roll Call at 6:33 pm

Brian Haas - Present
Jennifer Gaudet - Absent
Jerry Culbert - Present
Justine St. John - Present
Mary Brannelly - Present
Nicholas Kane - Present
Robert Rouleau - Present
Anthony Midey - Present
Wayne White - Present
Mark Anderson - Present
Christopher DiSilva - Present
Justin DeMarco - Absent
Matthew Johann - Present
Greg Johnson - Present
Hilary Griffiths - Present

Katie Moore, FinCom (NV) - Present Ken Neuhauser (NV) - Present Robert Savoie (NV) - Absent Charles Gobron (NV) - Present

The Selectboard, School Committee, and Finance Committee were also called to order via roll call.

### **Project Team Members Present:**

Phil Palumbo, Colliers Project Leaders; Al Esteves, Colliers Project Leaders; Chris LeBlanc, MVG; Frank Tedesco, MVG; Marty Vickey, C.A. Crowley Engineering, Inc., and Dennis Daly, MVG.

### Others present:

Members of the Sustainability Committee and several community members were also present.

Documents presented during meeting: The meeting included presentation of a PowerPoint agenda and supporting slides presented by Phil Palumbo, Chris LeBlanc, and Marty Vickey.

### Introduction

Jerry Culbert and members of the project team, including the Owners Project Manager (Colliers) and Architect of Record (MVG), were introduced.

#### Presentation – Refer to the attached Presentation

Brian Haas summarized the need for the project, highlighting the extensive programmatic and physical deficiencies of the existing school. As an example, a total of five heating units stopped working during this year's cold fronts and could not be replaced. A total of five classrooms are currently being temporarily heated.

Jerry Culbert presented the required makeup / designations of the MSBA School Building Committee (SBC), the SBC team qualifications, and summary of the public meetings held to date. The SBC is made up of an experienced and diverse group of Town representatives from the School Committee, School Superintendent, School Principal, Finance Committee, DPW Director, and architects/engineers. A total of 40 public meetings have been held to date.

Phil Palumbo presented the project timeline noting that Schematic Design (SD) submission will be in April, with project approval/funding agreements in June, and the Town Meeting and Vote in October/November. If approved, construction completion would be around July of 2027.

Chris LeBlanc presented an overview of the MSBA process and the site selection process, including the review criteria that led to the current scheme. Major site selection criteria included eliminating severe overcrowding, long-term solution to district current and future needs, and other educational, programmatic, community, site, safety, cost, and construction disruption considerations. Chris LeBlanc indicated that the criteria was developed with the feedback from several visioning workshops with school committee, town agencies, permitting, police, fire, etc.

Chris LeBlanc presented the current site plan, building plans, and project renderings, and noted how the current design meets the design criteria. Highlights of the current design included:

#### Site:

- 1. Efficient vehicular circulation, parking, and separate parents & bus drop off areas to reduce traffic.
- 2. Athletic field and playgrounds located as recommended by the police department for safety.
- 3. ADA compliance

#### Floor Plan:

- 1. Efficient teaching through the use of "Classroom Neighborhoods" that facilitate teaching and provide ease of wayfinding/familiarity for the students.
- 2. Efficient floor plan (limited corridors/double loaded corridors)
- 3. Community spaces and ability to lock-off classroom areas separately from community spaces

Chris LeBlanc presented the sustainable features being implemented to achieve LEED Gold Certification. These features extend past energy efficiency and include water efficiency, reducing heat island effect, long-lasting materials, 90% recycled construction waste, healthy materials/indoor environment, among others. The building will achieve LEED Gold regardless of the active HVAC systems being implemented.

Marty Vickey and Chris LeBlanc presented the Life Cycle Cost Analysis (LCCAs) for an air-source heat pump (electric), geothermal heat pump (electric), and gas-fired boilers, as well as solar PV options to achieve Net Zero. Highlights of the LCCAs are:

- 1. The Geothermal option has the highest anticipated upfront costs of \$10.25M as compared to air-source heat-pump of \$8.1M, and gas-fired of \$5.67M. Drilling of the Geothermal wells would add approximately 4-6 months to the construction timeline translating to approximately \$800k in general conditions (~\$100k in temporary heating).
- 2. The scope of the IRA incentive has not been clarified by the IRS and could result in significantly different savings.
- 3. Eversource and IRA incentives reimbursement is anticipated to take 1-2 years after completion of the building.
- 4. A roof-mounted solar PV array offsetting approximately 60% of the anticipated building's energy use will be provided regardless of the HVAC system.
- 5. To achieve Net Zero (full off-set) with either of the all-electric HVAC systems either:
  - The recreation field in front of the school will have to be appropriated for groundmounted solar panels or;
  - Approximately two acres of densely wooded area northwest of the school will have to be cleared for a ground-mounted solar PV array.

6. The solar canopies at the parking lots are anticipated to result in a net cost rather than savings due to the cost of the structure. In other words, the anticipated solar production from these panels is not anticipated to cover the cost of the structure but would allow full offset of the building's energy use.

Phil Palumbo presented the anticipated project costs based on an estimated \$700/SF which accounts for inflation. The total project cost is anticipated to be approximately \$79M of which MSBA will reimburse the Town of Maynard approximately \$29.7M.

Brian Haas presented the implications of not passing vote. In the scenario, the Town would essentially loose the \$30M MSBA grant and would be stuck with a deficient building needing significant ongoing maintenance and repair costs. Re-acceptance into the MSBA is not guaranteed and, if accepted, could take years. Repairing the existing building will cost an estimated \$34.4M, and this would not solve the space, education, and programmatic deficiencies of the building.

#### Discussions - Questions from the various Board members

Highlights of the discussions were as follow:

#### Costs:

- 1. The total building costs, including the various HVAC systems, are currently being estimated by two independent estimators. These estimates will be reconciled and will go through a Value Engineering (VE) process and will inform the budget that should be carried with the MSBA SD submission. The HVAC system can be changed after the MSBA SD submission as long as there is sufficient budget. SBC approval of the budget to be carried into the MSBA SD submission will be on March 20<sup>th</sup>. For clarification, the purpose of the estimated costs, including HVAC costs, is for construction cost estimating and not life cycle costing. Life cycle energy savings are captured in the LCCAs.
- 2. The LCCA tables include a 6% discount maintenance rate; however, this will be confirmed.

### HVAC System:

- 3. Caution should be taken when looking at the Life Cycle Costs (LCCs) given the uncertainty around the IRA incentives. The project will have to be bonded at the upfront costs, exclusive of any Mass Save or potential IRA incentives. Additionally, the operating costs for the new school should be considered. Higher operating costs would translate to less money available for programming.
- 4. It was recommended to include a double life cycle LCCA for the gas-fired system being switched to electric in the future to capture the cost to swap the system. The wells

- component of the Geothermal system has an Estimated Useful Life (EUL) of around 50 years, as such, it was recommended that these costs be pro-rated into the single-cycle LCCA.
- 5. It was recommended that the gas-fired HVAC LCCA include full AC for comparison purposes. While MVG believes that displacement ventilation is sufficient to meet the comfort needs, a member pointed out insufficient cooling on extreme hot days. Marty Vickey mentioned that displacement ventilation would not lend itself to full AC conversion.
- 6. Marty Vickey does not know of any precedent where <u>existing</u> systems had to be changed due to legislative action.
- 7. The MSBA does not require that buildings be fully electric, and this is not something that is currently in the pipeline.
- 8. It was stated that the price of gas could see 300-400% price increase as more customers switch to electric and the cost to maintain the existing infrastructure is shared by fewer clients.

### Site Concerns:

- 1. In the current design, 120 parking spaces will be provided, this is up from the current 70 parking spaces.
- 2. The cost of extending the site utilities will be carried in the budget.
- 3. The conditions of the existing building will be documented prior to ledge removal to monitor for changes in the structure. Monitoring plans will be implemented to ensure the integrity of the existing school building.
- 4. Overall, the Acton-Boxborough school was able to achieve full off-set due to more available space for solar panels. Additionally, it should be noted that Acton-Boxborough's full-offset claim is based on "Max capacity" as opposed to average output.

#### Geotechnical:

A slide showing the location of the geotechnical explorations was presented by MVG.
 Other than required ledge removal, no other geotechnical concerns were found. Much
 of the removed ledge will be crushed on-site and used as structural fill under the
 building foundations. Similarly, excavated soils will be amended and re-used on-site to
 the maximum extent possible.

#### Environmental:

1. While there was no evidence of environmental concerns <u>observed</u> in the soil borings, additional testing will be commissioned. Colliers clarified that there is a budget established for additional testing in the future.

### **Building Design:**

- The building follows the MSBA programmatic guidelines, meets the districts education program, and is an efficient layout. Efforts were taken with the School Committee to reduce the square footage as much as possible. An example brought up about the Lincoln public school which the minimum required spaces only to be considered undersized only 2-3 years later.
- 2. It was noted that the current building designed is larger than the existing building to meet the <u>minimum</u> MSBA and educational requirements. Contrary to the existing school, the new school will have a full kitchen, properly sized accessible bathrooms, and proper after school space.
- 3. The gym is sized per the MSBA minimum space requirements for teaching stations.
- 4. The SBC decided not to pursue rainwater collection and re-use given that this system would have to be separate from the domestic water to meet the building codes. In addition, these systems would require significant regular maintenance.

### No Pass Vote Concerns:

- 1. Even if accepted back into the MSBA right away, the anticipated delay would be around 2 years. During this time, escalation and ongoing maintenance and repair costs for the existing building would continue. Additionally, feasibility costs spend to date would not be reimbursed by the MSBA. The feasibility budget was \$1M. It is uncertain if MSBA would reimburse the feasibility costs should a different design option be considered.
- 2. The cost to repair the existing building estimated at \$34.4M would extend the life of the building systems by 20-30 years.

### Others:

- 1. Capital expenses will be required to keep current school functioning until construction completion around 2027.
- 2. The feasibility study, showing the site options, is available in the Town of Maynard website.
- 3. Greg Johnson is working on getting average costs to taxpayers. A member indicated a rough cost of \$13.4/million.
- 4. Overall, several members expressed desire in more involvement with the SBC.
- 5. There is a concern with backlash/losing votes if proceeding with a gas-fired system.
- 6. The upcoming FAQs should provide answers to many of the questions.
- 7. Given that the two-school model (adding to Fowler) was not included in the Feasibility Agreement with the MSBA, this option could not be considered during feasibility. This was verified by Colliers once brought onboard.

### **Discussion - Questions from Community Members**

- 1. Roger Stillwater indicated that he reached out to State Senator, Elizabeth Warren to obtain clarification on the IRA incentives. Additionally, Roger S. indicated that a warrant recommending fossil-fuel free school will be presented to the Selectboard and asked if the HVAC system decision could be changed accordingly if the warrant passes. Colliers clarified that this is not an issue, and the important thing is to carry the appropriate budget that can cover the additional system costs.
- Julie Gagen recommended a local comment period during team meetings as well as
  establishing a subcommittee dedicated to the HVAC system studies. Julie G. stated that
  the decision to go with a gas-fired system was made without the Sustainability
  Committee.
- 3. Jeff Shenette, a resident of Maynard vocalized opposition to natural gas and strongly supported the Geothermal system. Jeff S. also expressed that the project should take advantage of the Mass Save incentives and noted the benefits of the Geothermal system including high efficiency, long lasting, healthier air-quality, volatility of gas prices, and changing electric grid sources of energy. Jeff S. indicated that the Acton-Boxborough school opted for the Geothermal system after studying the LCCs.
- **4.** Kayla, a resident living across the street from the project expressed her intent to vote for the Geothermal system.

### **Next Meeting Dates**

Monday, March 20th, 2023, SBC Meeting to Approve the SD budget

Meeting Adjourned via Roll Call at 10:01 PM.









**BUILDING PROJECT** 



# **THE PROJECT "WHY"**

- Overcrowding / Lack of Required Space to Meet Educational Program
- Energy-Inefficient / Deteriorating Building Envelope
- Failing / Mechanical / Plumbing / Electrical Systems
- Non-ADA Compliant Building Facilities and Site















# **MSBA Requirements of Make-Up of School Building Committee**

- MCPPO Certified
- Selectboard Liaison
- Town Administrator
- Budget Official

- School Committee Member
- Superintendent of Schools
- Facilities Director

- Building / Design Experience
- School Principal
- Educational Mission Experience







# GREEN MEADOW ELEMENTARY SCHOOL BUILDING PROJECT

## **GREEN MEADOW ELEMENTARY SCHOOL BUILDING COMMITTEE**

Greg Johnson (Town Administrator)
Brian Haas (School Superintendent, MPS)
Robert Savoie (Dir. of Building Facilities)
Robert Rouleau (Principal, GMES)
Jennifer Gaudet (Community Representative)
Katie Moore (Finance Committee Member)

Nicholas Kane-Co-Chair (Community Representative)

Anthony Midey (Community Representative)

Jerry Culbert-Chair (Community Representative)

Justine St. John (Select Board Member)
Mary Brannelly (School Committee Member)
Justin DeMarco (DPW Director)
Chris DiSilva (Select Board Member)
Charles Gobron (Special Projects Coordinator)
Wayne White (Business Manager, MPS)
Mark Anderson (Community Representative)
Matthew Johann (Community Representative)
Ken Neuhauser (Sustainability Committee)
Hilary Griffiths (School Committee)









# **40 PUBLIC MEETINGS TO DATE**

# Feasibility Study Phase: Dec. '21 - Aug. '22

## **22 Public Meetings**

- 18 School Building Committee Meetings
- 2 Community Forums
- 1 Selectboard Presentation
- 1 School Committee Presentation

# <u>Schematic Design Phase: Sept. '22 – Present</u>

# **18 Public Meetings**

- 10 School Building Committee Meetings
- 1 Community Forum
- 1 Selectboard Presentation
- 1 School Committee Presentation
- 5 Sustainability Subcommittee Meetings







**BUILDING PROJECT** 



## **PROJECT TIMELINE**

#### **FEASIBILITY STUDY PHASE**

- PRELIMINARY DESIGN PROGRAM (PDP) MARCH 2022
- PREFERRED SCHEMATIC REPORT (PSR)\_\_\_\_JUNE 2022

SCHEMATIC DESIGN SUBMISSION APRIL 2023

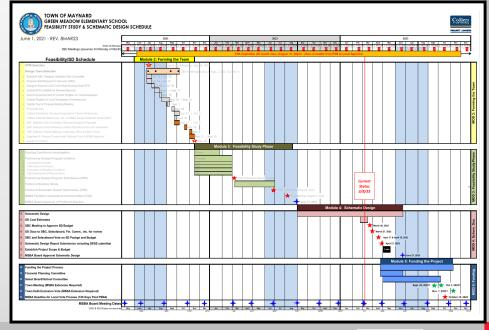
PROJECT APPROVAL/FUNDING AGREEMENTS\_\_\_\_\_JUNE 2023

TOWN MEETING and VOTE \_\_\_\_OCTOBER/NOVEMBER 2023

DESIGN DEVELOPMENT, BID DOCUMENTS and BID 2024

CONSTRUCTION COMPLETION 2027

PROJECT COMPLETION 2028











## **MSBA Process:**

# **Preliminary Design Program Phase**

- Review / Investigate Existing Building and Site Deficiencies
- Define Program Requirements and Prepare Preliminary Solution Options
- Available Site Selection Analysis'

# **Preferred Schematic Report Phase**

- Further Develop and Evaluate Added Alternative Solutions
- Review Alternative Solution Criteria and Select Preferred Design Solution

# **Schematic Design Phase**

- Further Refine Site and Building Requirements
- Prepare Project Budget

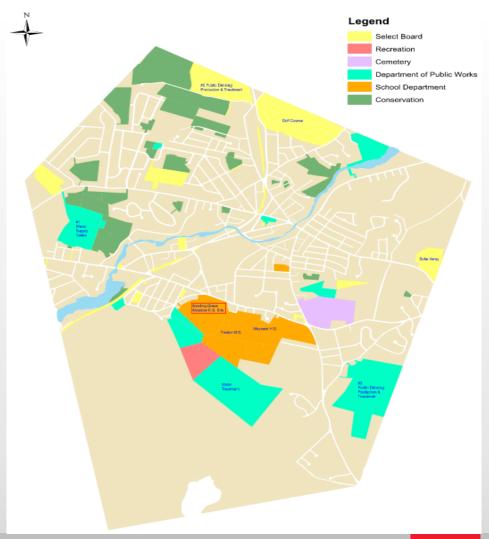






# **Alternative Sites**

- Reviewed Town Owned Properties
- Conservation Areas Not Reviewed
- Reviewed Selectboard / DPW Parcels
- Many Parcels Undersized for School Development
- Larger Remaining Parcels
  - Golf Course not Considered
  - Public Drinking Water / Well Sources
  - Extensive Wetlands
  - Topography and Utility Availability









**BUILDING PROJECT** 



# **Alternatives Review Criteria**

### MSBA Statement of Interest Priorities

- Eliminates Severe Overcrowding
- Long Term Solution to District Needs
- Space for Additional Student Enrollment

### Floor Plan Layout

- Efficient Layout / Easy Wayfinding
- Classroom Neighborhoods
- Community Use Spaces
- Spaces for Teacher Collaboration

## Site Plan Layout

- Sensible Site Circulation
- Separate Parent / Bus Drop-off Areas
- Adequate Parking for Staff / Community
- Appropriate Play Areas / Fields
- Crowe Park Integration

### Construction Impact

- Reduces Multiple Construction Phased Options
- Reduces Impact on Education Disruption During Construction
- Eliminates Need for Swing Space

Alternatives Re								
Green Meadow E.S	Alt #1	Alt #2	Alt #3	Alt #4	Alt #5	Alt #6	Alt #7	MVG
Maynard, MA	Code Upgrade	Add/Reno	Add/Reno	New	New	New	New	MOUNT VERNON GROUP ARCHITECTS
Project - 02021.10	& Repairs			Construction	Construction	Construction	Construction	
Category								
SOI Requirements	1	3	3	4	4	5	5	
Floor Plan Layout	2	3	3	3	3	5	5	
Site Plan Layout	1	3	3	3	3	4	5	
Construction Impact	3	2	2	3	3	4	4	
Total Score	7	11	11	13	13	18	19	









**BUILDING PROJECT** 



PROPERTY LINE

**BUS DROP OFF** 

ONE WAY ENTRANCE ROAD: 24'WIDE

CAR DROPOFF: 12' WIDE

PICKLE BALL COURTS

GENERAL PLAYFIELD

NATURE PLAY

PLAY AREA

READING GARDEN/ OUTDOOR CLASSROOM

CROWE PARK

PARKING LOT - 116 TOTAL SPOTS

**EXISTING PARKING LOT TO REMAIN** 

PRE-K PLAY AREA







# GREEN MEADOW ELEMENTARY SCHOOL BUILDING PROJECT



















**BUILDING PROJECT** 





















**BUILDING PROJECT** 









# GREEN MEADOW ELEMENTARY SCHOOL BUILDING PROJECT











**BUILDING PROJECT** 



# **LEED Gold Sustainable Features**

## Location and Transportation

- Electric Vehicle (EV) Charging Stations
- Site Re-use for Development
- Reduced Parking Footprint

### Sustainable Sites

- Erosion and Sediment Control
- Water Infiltration System
- White PVC Membrane Roof

## Water Efficiency

- Low-Flow Plumbing Fixtures
- Drought Resistant Adaptive Plants
- Water Meters

## Energy and Atmosphere

- High-Performance Building Systems
- On-Site Renewable Energy
- Commissioning of MEP Systems

### Materials and Resources

- · Central Recycling Area in Building
- Building Materials w/Improved Life-Cycle Impacts
- 90% Construction / Demolition Waste

### Indoor Environmental Quality

- Low-emitting VOC Materials
- Indoor Air-Quality Management Plan
- Building Flush-out Prior to Occupation
- Sufficient Daylighting







**BUILDING PROJECT** 



Systems	Pros & Cons	Total HVAC Construction Costs	Eversource Incentives/ Rebates	Inflation Reduction Act	Energy Costs /Year	Maintenance costs/Year	Total Operating Costs/Year	Total LCCA w/o Rebates	Total LCCA w/ Rebates
Central Air Source Heat Pump:	Pros:  No refrigerate except mech room  Low maintenance costs  Low noise  19 year life expectancy  Cons:  High Initial Costs  Outdoor equipment	\$8,100,000	\$476,050	N/A	\$122,968	\$38,700	\$144,900	\$11,618,055	\$11,248,1178
room  Most Effi  Low main  Low noise  Cons:  Highest Ir  Temp. sys	No refrigerate except mech room  Most Efficient (Geothermal)  Low maintenance costs  Low noise	* Additional General Conditions/Ledge - \$800,000 \$9,450,000 Including Temp Heating System (\$10,250,000) \$9,450,000	\$1,216,000	40% of Total HVAC Costs (\$3.78 M)	\$ 117,768	\$18,900	\$120,600	\$10,978,389	\$6,167,675 (\$6,967,675)
	●Temp. system maybe required until wells are drilled	Including Temp Heating System (\$10,250,000)	\$1,216,000	Heat Pump Costs (\$990,000)	\$117,768	\$18,900	\$120,600	\$10,978,389	\$8,701,389 (\$9,501,389)
Gas Fired Boiler and Displacement ventilation with electric chiller:	Lowest initial costs     20-25 year life expectancy     Improved Indoor air quality     Onsite Fossil Fuels	\$5,670,000	90%+ Efficient Boilers \$16,000	N/A	\$99,921	\$19,800	\$115,200	\$7,454,411	\$7,515,298





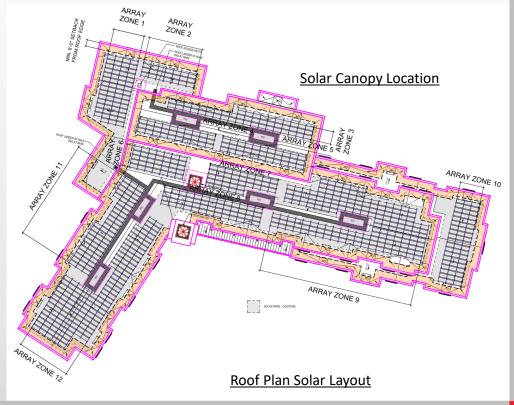


**BUILDING PROJECT** 



# **PPA PV Array - Approx. 60% Offset**

- Annual Bldg Use Approx. 660kw
- Approx. Ave. Monthly Electric Costs -\$17,000
- Roof Solar Approx. 240kw (\$.10/kwh)
- Approx. Year 1 Forecast Savings \$10,200
- Approx. 20yr Term Savings \$386,000









**BUILDING PROJECT** 









**PV Array Full Offset – Option 2** 

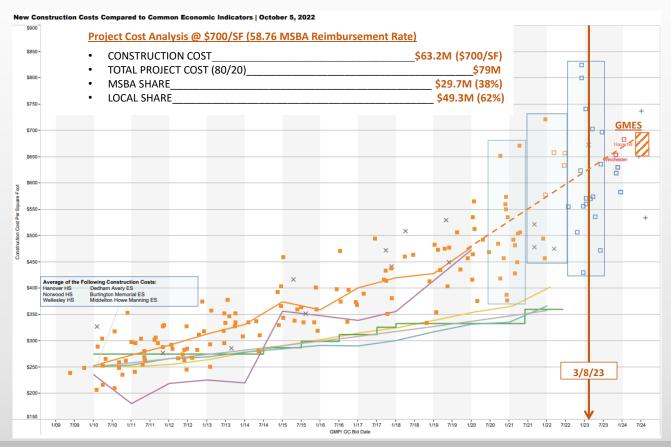








**BUILDING PROJECT** 









**BUILDING PROJECT** 



## What happens if the Town does not approve local funding for the project?

- Continued expenditures associated with building and site maintenance and improvements.
- Students and teachers remaining at GMES will continue to struggle to meet educational goals in a building that is ill-equipped to meet their needs.
- Loss of access to \$30M grant.
- Chance of acceptance back into the MSBA program will likely take years.
- Cost to perform the project will continue to rise.

In the event that a school district fails to approve funding for a feasibility study, by no later than 10 business days following the failed vote, the school district must submit to the MSBA a plan that: (1) presents the vote results, (2) explains the school district's understanding of the reason(s) for the failed vote, and (3) sets forth the school district's plan to remedy the failed vote and a suggested timeline for such a remedy. The MSBA will review the plan and determine whether it can continue to set aside MSBA funds for the feasibility study. However, a failed local vote likely will result in the school district being required to submit a new Statement of Interest to the MSBA and await a second invitation from the MSBA to enter the feasibility study phase of the MSBA's process.

MSBA Policy Statement











## Code Upgrade / Base Repair

- 1. The estimated project costs for base repair/code upgrades is \$34.4M assuming a construction start of Winter 2024. This option was rejected by the School Building Committee because it does not meet the District's educational programming goals.
- 2. The existing Green Meadow Elementary School building is assessed at only \$7.87M. The \$34.4M Code Upgrade assumes approximately \$384/sf to take the GMES building from a 1955 and 1988 building code standard to a 2024 building code standard.

#### Including:

- Energy / Insulation / Ventilation
- Plumbing / Electrical Systems
- Structural
- Security
- Installation of Sprinkler Systems

- Hazmat Abatement
- Full ADA Compliance
- Modular Classrooms for Swing Space
- Soft Costs
- 3. Some of these upgrades are automatically triggered by any renovation that exceeds 30% of the assessed value or 30% of the overall area of the building.
- 4. This option does not include any architectural improvements to meet educational goals.









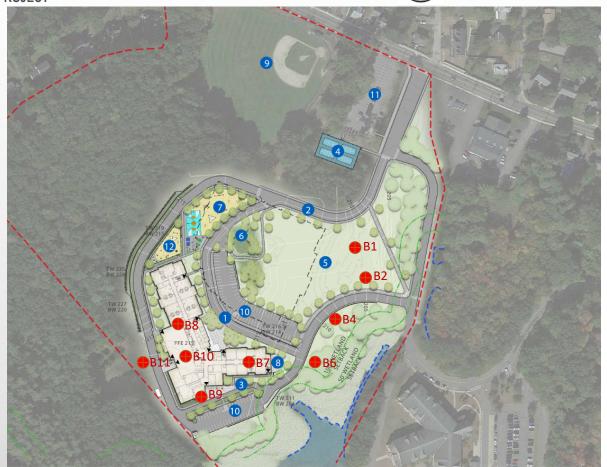








**BUILDING PROJECT** 



PROPERTY LINE

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ONE WAY ENTRANCE ROAD:

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**BUILDING PROJECT** 



# **Potential Geothermal Well** <u>Field</u>

- Part of General Contract Work
- Logistics / Costs
- Approximately 75 Wells Needed
- 25' Spacing 500' Depth
- **Extends Project Closeout by** Approximately 6 Months







