



## Panel 4: Access to Safe and Effective Learning Environments

**Peter Light**, *Superintendent*

**Marie Altieri**, *Deputy Superintendent*

**JD Head**, *Director of School Operations*

**Dave Verdolino**, *Finance Director*

WELLNESS • EQUITY • ENGAGEMENT

## Long-Range Strategic Plan



Our **vision** is to provide high-quality educational opportunities that inspire a community of learners

WELLNESS • EQUITY • ENGAGEMENT

Our **mission** is to develop engaged, well-balanced learners through collaborative, caring relationships

**Goal #3:** Students will have access to safe and effective learning environments

WELLNESS • EQUITY • ENGAGEMENT

## Access to Safe and Effective Learning Environments

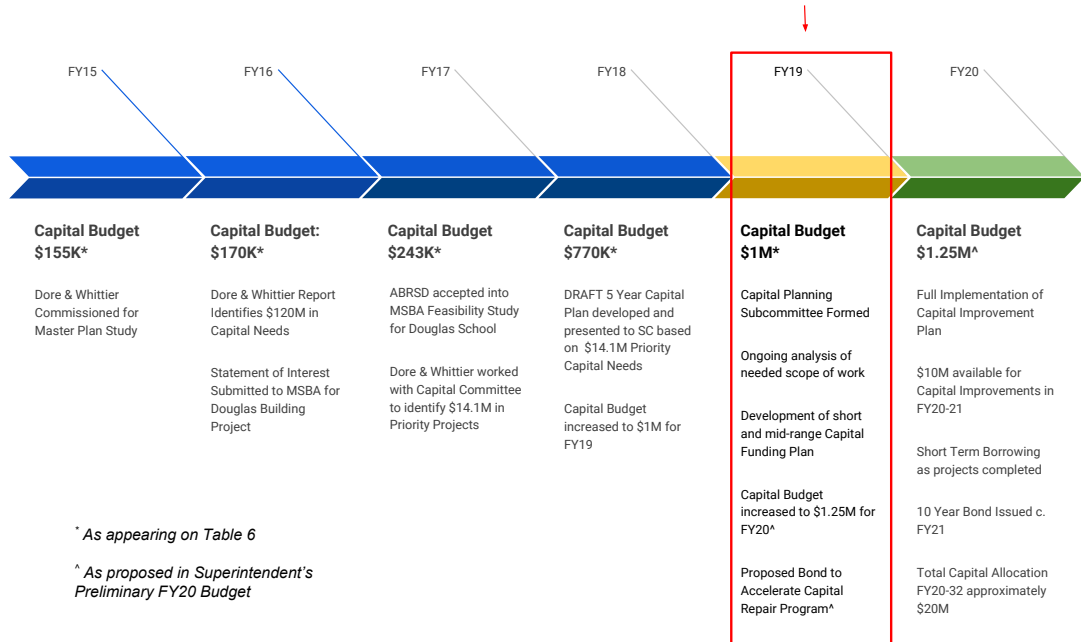
Overview of this panel:

- Capital Improvement Plan
- Facilities & Maintenance
- School Security
- Transportation
- Building Project Update

## Part I : Capital Improvement Plan (CIP)

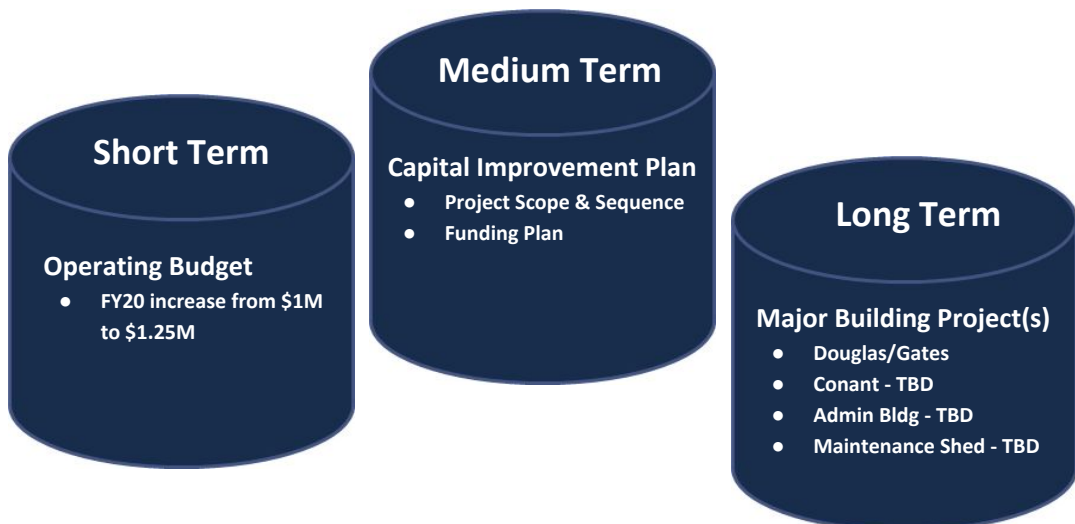
---

# History of Capital Development & Expenditures



WELLNESS • EQUITY • ENGAGEMENT

## Implementation of short, medium, and long term capital needs



WELLNESS • EQUITY • ENGAGEMENT

# Capital Strategy



WELLNESS • EQUITY • ENGAGEMENT

172

## 1. Evaluation of Capital Projects

Dore & Whittier (2016)

Skanska (2019)

### \$120M in Identified Projects

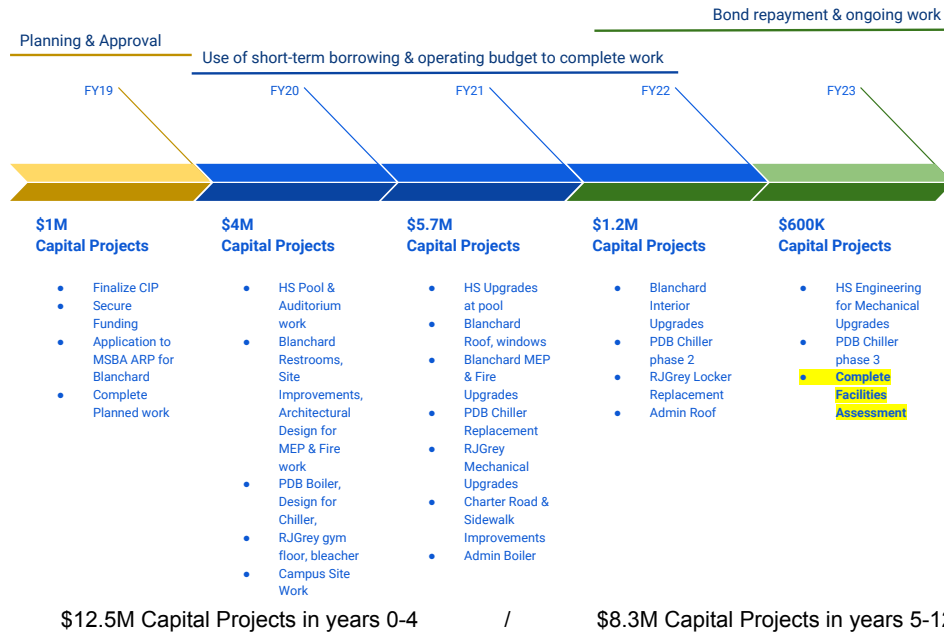
- Comprehensive list of projects - Master Planning Process
- Identification of schools for MSBA projects
- Included items not essential
- Cost estimates high
- Included redundant and duplicate projects

### \$20.8M in Proposed Projects for CIP

- Remove projects at:
  - Douglas, Gates (Bldg. Prjct.)
  - Conant
  - Maintenance Shed
  - Admin Bldg
- Remove redundancies
- Remove "Wishlist" items
- Account for work completed to date
- Remove Preventative Maintenance projects
- Update cost estimates



# Capital Projects FY19-23



# Capital Projects FY20

Building	Year 1 FY20 Project	Cost	Building	Project	Cost
ABRHS	Pool Pak	\$514,000	RJ Grey	Gym Bleachers	\$100,000
	Code Compliance Design Pool Bleacher	\$22,500		Gym Floor	\$150,000
	Aud Lighting	\$214,000		Stage Flooring	\$35,000
	Stage Curtains	\$40,000		HVAC Design	\$75,000
	Aud Seats	\$15,000		Wood Trim	\$110,000
Blanchard	DDC Controls	\$300,000		Domestic Hot Water	\$75,000
	Design Fire Protection / Electrical / Mechanical	\$110,000	Campus	Charter Road Design	\$100,000
	Gym Crash Pads	\$35,000		Bus Access Road JH/HS Connection	\$350,000
	Thermal Wrapping	\$25,000		HS / PDB / Admin Parking Lots	\$900,000
	Site Improvements	\$100,000	Admin	Demo corridor to Mod	\$150,000
PDB	HVAC Design	\$90,000	Security	Re-Key Interior Doors	\$12,900
	Boiler Replacement	\$175,000	Special Projects	Field House Curtain	\$17,182
	Masonry	\$100,000		JHS Library Furniture	\$25,000
	Domestic Hot Water	\$40,000			

# 1. Evaluation of Capital Projects

## Projects Eligible for MSBA Accelerated Repair Program

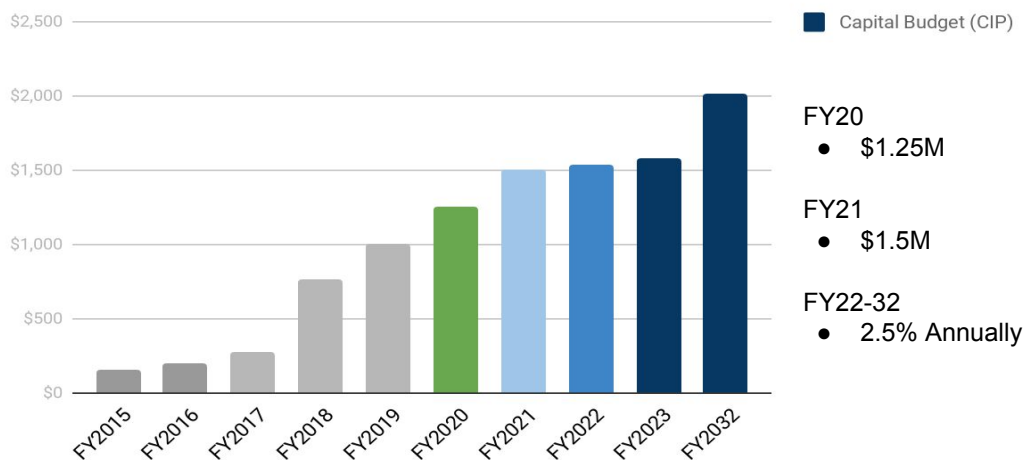
- Blanchard School (FY20-21)
  - Roof and window replacement
- Parker Damon Building (FY29-30)
  - Roof replacement
- RJ Grey Junior High School (FY31-32)
  - Roof and window replacement

*Next Steps: SC Vote to submit Blanchard SOI 2/7  
Submit Statement of Interest to MSBA by 2/15*

# 2. Increase Capital Budget

## Increasing Commitment to Capital Needs since Full Regionalization

(Amounts in \$000's)

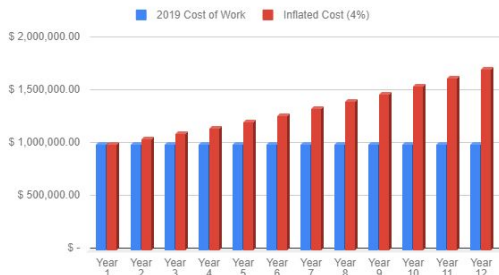


# 3. Why borrow to complete projects?

## A combination of factors (not a single reason)

- Short and mid-term capital needs exceed ability to fund solely through operating budget
- Opportunity to accelerate improvement plan
- Hedge against construction inflation
  - (Principal + Interest payments < inflated construction costs over time)
    - Construction inflation averaged between 4 - 4.5% per year over last 5 years
    - Presumed interest rate on bond is 3.75%

2019 Cost of Work and Inflated Cost (4%)



Assuming a 4% construction inflation rate:

\$1M of work in 2019 would cost \$1.7M in 2032

WELLNESS • EQUITY • ENGAGEMENT

# 3. Key Bond Details

## Why a \$7.5M bond?

- Balance priority of projects with ability to repay WITHIN operating budget
  - continue to have \$ available for projects
- Goal = make funding for highest priorities available in first 2+ years of plan
- Total *Budgeted* Capital in FY20 (\$1.25M) and FY21 (\$1.5M) is \$2.75M
- Bond + Budget = c. \$10M available for Capital Improvements in FY20-21
- \$10M available for Capital in years 3-12 of plan

WELLNESS • EQUITY • ENGAGEMENT

# 3. Key Bond Details

## Bond Plan (10 Year Bond)

- Complete High Priority Projects over 2+ years
  - Begin Summer 2019
  - Complete Fall/Winter 2021
- Short Term Borrowing as needed during first 2 years
- Issue Bond FY21
- First annual P+i payments due in FY following bond issuance
- Level Principal Payments to decrease total interest paid

Total Bonded CIP Cost		7,500,000
Borrowing (bond) term (yrs)		10
Long-term interest rate		3.75%
Target FY2020 Capital Appropriation		1,250,000
Target Annual Capital Appropriation		1,500,000
Inflation rate (annual increase to target appropriation)		2.50%

WELLNESS • EQUITY • ENGAGEMENT

# 3. Bond Repayment

Interest on short-term borrowing

Level Principal payments reduces interest each year

Annual repayment on bond starts 2022

Year	FY	Note Int.	Principal	Interest	Bond P + i
-	2020	56,250			
-	2021	112,500			-
1	2022	168,750	750,000	281,250	1,031,250
2	2023		750,000	253,125	1,003,125
3	2024		750,000	225,000	975,000
4	2025		750,000	196,875	946,875
5	2026		750,000	168,750	918,750
6	2027		750,000	140,625	890,625
7	2028		750,000	112,500	862,500
8	2029		750,000	84,375	834,375
9	2030		750,000	56,250	806,250
10	2031		750,000	28,125	778,125

WELLNESS • EQUITY • ENGAGEMENT

# 3. Bond Repayment

What we Budget

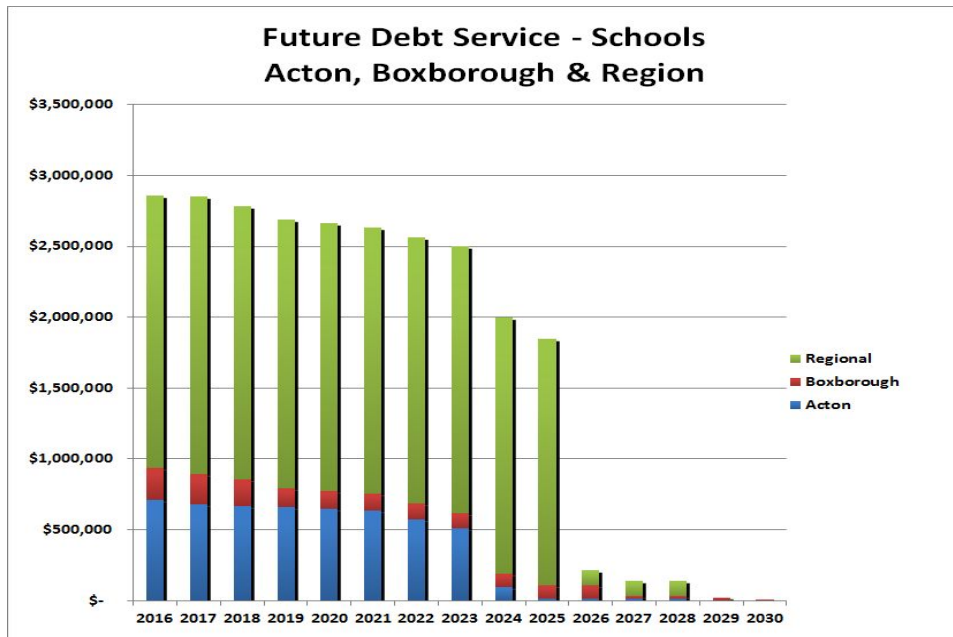
What we Repay

What we Have left for Projects

Bond Appropriation	Year	FY	Budgeted Capital Appropriation	Bond P + i	Supplemental Capital After Bond Payment
\$ 7,500,000	-	2020	1,250,000		1,193,750
	-	2021	1,512,500	-	1,400,000
	1	2022	1,500,000	1,031,250	300,000
	2	2023	1,603,125	1,003,125	600,000
	3	2024	1,575,000	975,000	600,000
	4	2025	1,646,875	946,875	700,000
	5	2026	1,718,750	918,750	800,000
	6	2027	1,690,625	890,625	800,000
	7	2028	1,762,500	862,500	900,000
	8	2029	1,834,375	834,375	1,000,000
	9	2030	1,906,250	806,250	1,100,000
	10	2031	1,878,125	778,125	1,100,000

C. \$10M Available for CIP FY20-21

# 3. Existing Debt Service (to FY2030)



### 3. Final Thoughts on Bond

- Debt repaid through ABRSD Operating Budget - *Not a debt exclusion*
- Will require approval of SC and  $\frac{2}{3}$  vote at Acton and Boxborough Annual Town Meetings to authorize debt
- Allows us to address identified priority projects in next 2 years
- Maintains capacity within operating budget for newly identified projects
- Capital Projects Manager proposed in FY20 Staffing Requests

WELLNESS • EQUITY • ENGAGEMENT

184

### 4. Stabilization Fund

#### A. WHY A STABILIZATION FUND?

- Legislation effective November, 2016
- DESE Advisory: “should be based on district’s long range capital plan”
- Auditors: “prudent means of capital budgeting and strategically targeting financial reserves in an appropriately transparent manner”
- Potential to augment resources identified in CIP bond funding proposal
- Address perceived concerns about minimal available funding in future years of CIP proposal

## 4. Stabilization Fund

### B. ESTABLISHING A STABILIZATION FUND

- Majority Vote of Regional School Committee (2/7)
- Majority Vote at Both Annual Town Meetings

### C. FUNDING OPTIONS TO STABILIZATION

- Appropriation via regular annual budget process
- Budget Amendment -
  - $\frac{2}{3}$  Vote of Regional School Committee; district to propose (~\$1M) toward end of FY19
  - Notice of Vote given to towns within 7 Days
  - Selectmen have 45 Days to decide whether to call for Town Meeting

## 4. Stabilization Fund

### D. ESTABLISHING A STABILIZATION FUND

- $\frac{2}{3}$  Vote of Regional School Committee
- Must be for purpose for which borrowing is permitted (consistent with the intent of this proposal)

### E. OTHER ASPECTS

- Accounting is similar to Capital Projects (separate fund; carryover of fiscal years)
- Funds in Stabilization do not impact E&D
- Any Interest Earned remains in the Fund

# Part II : Facilities & Maintenance

WELLNESS • EQUITY • ENGAGEMENT

## Facilities & Maintenance

Preventative Maintenance: Total Allocation = \$472,300

1	<b>Buildings</b>	\$271,800	<ul style="list-style-type: none"> <li>★ Minor carpentry - Door Hardware / Flooring</li> <li>★ Plumbing and Elec Systems MtnC</li> <li>★ Ancillary repairs to building envelop and roofing systems</li> <li>★ Interior Painting and wall repairs</li> </ul>
2	<b>Grounds</b>	\$104,000	<ul style="list-style-type: none"> <li>★ Fall zone replacement playgrounds (20K) general playground mtnC</li> <li>★ Turf / sod / irrigation mtnC repairs</li> <li>★ Roads / catch basins / signage / fencing</li> <li>★ Weather related damages</li> </ul>
3	<b>HVAC</b>	\$96,500	<ul style="list-style-type: none"> <li>★ Quarterly filter replacements consume approximately 80% of this line item annually.</li> <li>★ Belts / Motors / Coils / Actuators</li> </ul>



# Facilities & Maintenance

## Capital Projects Manager: Jr High Gym Floor Replacement

### Project Development

Identify and meet with stakeholders

Gather an understanding of the need and any relevant history

Understand what the problem is and what possible solutions would be acceptable to stakeholders

### Options Analysis

Meet with vendors

Develop options

Develop preliminary costs based on various options

Understand schedule implications associated with options

Review any permit / code or local by-law implications

### Option Selection

Bring options back to the relevant stakeholders

Present cost and schedule implications related to any alternatives

Create possible "add alternates" related to scope or limitations

Select an option

### Project Design

Select a designer

Develop scope of work

Develop project budget

Develop project schedule

# Facilities & Maintenance

## Capital Projects Manager: Jr High Gym Floor Replacement (continued)

### Develop Bid Package

Front end bid set

Pricing sheet and add alternate arrangement if necessary

Identify procurement process based on bid thresholds

Legal Review

### Advertise and Award Bid

Place Ad in CommBuys, Local Paper, Central Register, and post in district office

Host a site visit

Hold public bid opening and review all bids for completeness (DCAM Certification, OSHA Training, Bid Deposit, Payment and, Performance Bond, Prevailing Wage Law)

Award to Lowest Responsible Bidder

### Construction Oversight

Provide daily construction management

Host construction meetings

Communicate with stakeholders

Stay on budget and on schedule

Communicate any possible changes or issues to stakeholders

### Project Close-out

Review full scope has been completed

Develop punch list

Close out the project finances

Facilitate inspections

Collect and file relevant warranty information

Digitize and preserve as-built documents

DCAM contractor evaluation

## Floating Custodian

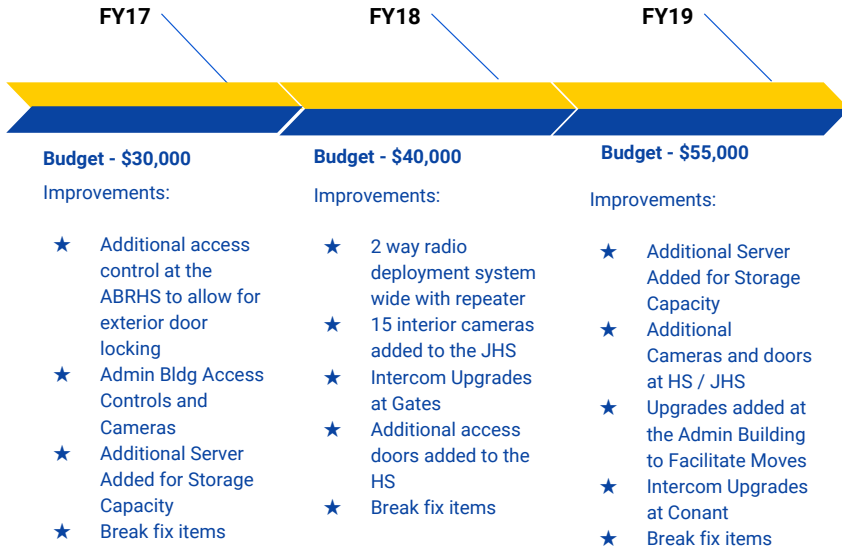
- Small estimated cost savings
- Average custodial absences = 3 per day
- Contract specifies current custodians have first refusal for covering shifts at overtime rate unless the custodian is absent four or more days
- Estimated salary \$50,000 + possible health \$12,000 (Estimated savings \$70,000 (based on covering 200 shifts that would otherwise be covered through OT))
- Will also provide more consistent coverage

## Part III : School Security

---

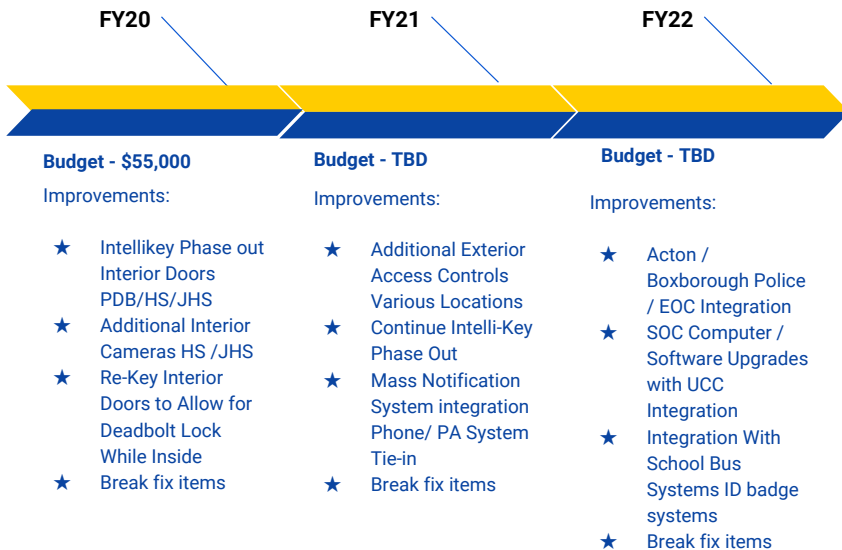
# School Security

## Recent History of Improvements / Upgrades:



# School Security

## Improvements / Upgrades Moving Forward:



# Part IV : Technology

---

WELLNESS • EQUITY • ENGAGEMENT

## Technology

### Operational Services - FY20 Request \$259,900

- Hosted and Software as a Service Applications
  - PowerSchool/CLG
  - Student Registration Gateway
  - School Messenger Presence
  - BrightArrow
- End-point computer management
- District-wide printing costs
- Telephone maintenance & support

### Infrastructure - FY20 Request \$153,000

- HP/Aruba Wireless Controller Upgrade
- Security-based Appliances/Subscriptions
- Network Switch Replacement Project (Year 3)
- Cisco UCS Server Replacement

# Technology

## Administrative & Instructional Hardware/Software

FY20 Request \$280, 200

- AB Regional High School Needs
  - Upgrade Communications/Performing Arts Lab
  - Add 12 additional laptops to Visual Arts mobile lab
  - Replace Science laptops with ChromeBook cart
- RJ Grey Junior High Needs
  - Add 135 ChromeBooks for “1-to-1” initiative
  - Provide Performing Arts Music/Theater program with iPads
- Elementary School Needs
  - Support emerging STEAM program
  - Maintain classroom technology
  - Maintain AV equipment

# Technology

## Admin & Instructional Hardware/Software (continued)

- District-Wide Needs
  - Continue online learning subscriptions
  - Replace aging computers for teachers, staff, and students
  - Level-fund PL for teachers to attend technology workshops & conferences in support of PreK-12 Digital Learning vision (2021 Technology Plan)

Total FY20 Request = \$693,100

# Part V : Transportation

---

WELLNESS • EQUITY • ENGAGEMENT

## Transportation

Goal: Evaluate effectiveness of single-tier bussing

- Major district-wide transition
- Need to study impact
- Opportunity to address community perceptions and concerns:
  - Longer ride times?
  - Overcrowded busses?
  - Impact of implementation of “Cluster Stops”?
  - Inconsistency of bus drivers?

# Transportation

## Community Concerns

1	Longer ride times	<ul style="list-style-type: none"> <li>• Average Bell to Home Length of Time HS/JHS 33 minutes Elem 37 minutes</li> <li>• 75% of all Elem Students have a bus ride time less than 35 minutes</li> </ul>
2	Overcrowded busses	<ul style="list-style-type: none"> <li>• Based on ridership head counts completed January 2019 100% of all buses have an average daily ridership &lt; 65 Elem students and &lt; 55 students HS/JHS</li> </ul>
3	Impact of implementation of "Cluster Stops"	<ul style="list-style-type: none"> <li>• HS/JHS walk to stop target .5 miles actual average distance .113 miles</li> <li>• Elementary walk to stop target .25 miles actual average distance .087 miles</li> </ul>
4	Inconsistency of bus drivers	<ul style="list-style-type: none"> <li>• Started the school year with exactly enough drivers using subs / and office staff to run.</li> <li>• November 14, 2018 was first day with full complement of drivers</li> </ul>

# Transportation

## Evaluation of Single Tier Bussing

- GPI Assessment presented to ABRSD SC 1/10/2019

### Summary of Findings:

- System is currently running with optimum economic efficiency based on bus utilization
- Implementation of cluster stops reduced total bus stops by 24% resulting in more efficient and greener system
- Most problems related to performance metrics occur on the C/McT/M route tree

### Recommendations:

- Add 2 buses / routes to the C/McT/M route tree

# Transportation

Proposal to add 2 buses to C/McT/M Route Tree

Rationale:

Create hybrid C/McT/M route separation targeting dense population centers nearest the respective buildings to reduce the number of buses that need to cross KC to load at both locations. This will improve time metrics related to this route tree for a large percentage of the student population at all three schools.

Costs: \$120,000

## Part VI : Building Project Update

---






Our **vision** is to provide high-quality educational opportunities that inspire a community of learners

WELLNESS • EQUITY • ENGAGEMENT

Our **mission** is to develop engaged, well-balanced learners through collaborative, caring relationships

**ACTON BOXBOROUGH  
SCHOOL BUILDING  
PROJECT**

**CT Douglas  
Elementary School**

Acton Boxborough Regional School District  
Acton, Massachusetts

School Building Committee Presentation  
January 9, 2019

**ARROWSTREET**  
10 POST OFFICE SQUARE  
SUITE 200W  
BOSTON, MA 02109  
617-623-5555  
www.arrowstreet.com

**SKANSKA**  
101 SEAPORT BOULEVARD  
SUITE 200  
BOSTON, MA 02210  
617-578-1400  
www.skanska.com

# Master Planning Process

## Phase 1 2015-2016

- Completed review of all 8 school facilities
- Developed Capital Improvement plan
- Identified Douglas, Gates, Conant in need of renovation/replacement and overcrowded

## Phase 2 Feb 2016 - Dec 2016

- Conducted Educational Visioning – 80 stakeholders
- April 2016 Submitted MSBA Statement of Interest Douglas
- Identified 7 possible project options; 12 Forums, surveys

## Option review and recommendations 2017

- Invited into Formal MSBA Process (Feb 2017)
- Established Building Committee
- Design Enrollment Approved 990 students

# Age of Buildings and Renovations

1946	1956	1966	1976	1986	1996	2006	2016
	Blanchard 1949, 1959, 1967, 1970, 1995 (23 years since last renovation)						
	R.J. Grey Jr. HS 1955, 1960, 2002 (16 yrs last reno; some components are 58 yrs old)						
		Admin 1957 (61 years old)		Maint. Bldg 1980 (38 years old)			
		ABRHS 1964, 1971, 2004 (14 yrs since last reno)					
			Douglas 1965 (53 years old)				
			Gates 1967 (51 years old)				
			Conant 1970 (48 years old)			Parker Damon 2001 (17 yrs old)	

Acton Boxborough Regional School District

# Building Project Process

## December 2017

- Near Unanimous approval of both towns for funds for the feasibility study

## 2018 Feasibility Study

- Hired Owner's Project Manager - Skanska (Chuck Adam)
- Hired Architect for Feasibility Study - Arrowstreet (Emily Grandstaff-Rice)
- Second round of visioning - Douglas, Gates, Conant, PreK
- Developed and Submitted Education Program
- Developed and Submitted Preliminary Design Program

## 2018-2019 Feasibility Study

- Site review and analysis
- Site Selection; Phasing Selection (Gates site)
- Submit Preferred Schematic Report (Feb 20, 2019)

## Building Project Timeline

### Feb - August 2019 - MSBA Funding Agreement

- Meetings with focus groups, design building
- Submit completed Schematic Design with Cost Estimates
- August meet with MSBA, agreement for reimbursable costs

### November 2019 - Towns Funding Votes

- Special Town Meetings Acton and Boxborough Simultaneously
- Capital Override Vote in Acton and Boxborough

### 2020 - 2023 Construction

- Single phase or two phase
- If two phase, Gates will move in first, Gates torn down
- 2-3 year construction process

## Preferred Option

- A consolidated elementary school for two K-6 elementary schools (Douglas and Gates) plus the district's preschool
- The Building Committee selected Gates as the site
- The Gates and Douglas property would be a campus
  - School would be built next to the current Gates school
  - Parking and playgrounds would be built on Douglas site
  - A better walkable bridge would connect the two sites
  - Construction can take place while school is in session (one or two phase)
  - Once complete, Douglas and Gates would be torn down for parking and playgrounds
- Gates would move into one side; Douglas the other; PreK separate entrance; Several shared spaces



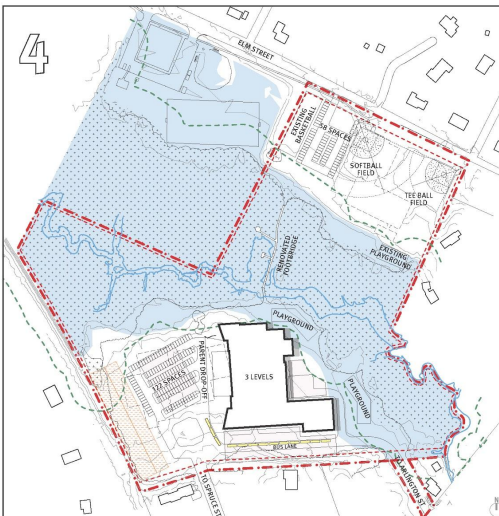
## Gates Site / Aerial Photo



ARROWSTREET CT DOUGLAS ELEMENTARY SCHOOL Acton Boxborough, Massachusetts

SCHOOL BUILDING COMMITTEE PRESENTATION / January 9, 2019

## Option 4 / Single Phase New Construction Consolidated Douglas & Gates, 990 Student Population



OPTION 4 SITE PLAN

4

### NEW CONSTRUCTION

GATES SITE	SINGLE PHASE
Building Area	187,000 GSF
Estimated Construction Cost/GSF	\$554.81
Estimated Total Construction	\$103,749,470
Estimated Total Project Costs (includes 30% soft costs)	\$134,874,314

### SITE INFORMATION

Douglas/Gates Parcel Area	31.5 ACRES
Gates Side Buildable Area excluding the wetlands setback and floodplain	6.31 acres

- Build a new Gates/Douglas consolidated school adjacent to existing Gates
- Distinct entrances
- 180 parking spaces
- Playgrounds on Gates & Douglas
- Renovated footbridge

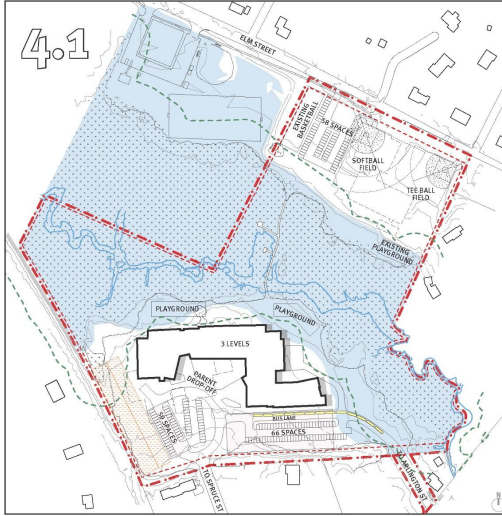


OPTION 4 PRELIMINARY MASSING

ARROWSTREET CT DOUGLAS ELEMENTARY SCHOOL Acton Boxborough, Massachusetts

SCHOOL BUILDING COMMITTEE PRESENTATION / January 9, 2019

**Option 4.1 / Multiple Phase New Construction Consolidated Douglas & Gates, 990 Student Population**



OPTION 4.1 SITE PLAN

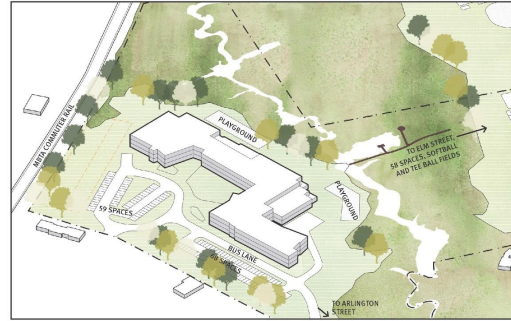
**4.01**

**NEW CONSTRUCTION**

GATES SITE		MULTI PHASE	
Building Area	187,000 GSF	Douglas/Gates Parcel Area	31.5 acres
Estimated Construction Cost/GSF	\$569.81	Gates Side Buildable Area excluding the wetlands setback and floodplain	6.31 acres
Estimated Total Construction	\$106,554,470		
Estimated Total Project Costs (includes 30% soft costs)	\$138,520,811		

**SITE INFORMATION**

- Build a new Gates/Douglas consolidated school adjacent to existing Gates
- Distinct entrances
- 180 parking spaces
- Playgrounds on Gates & Douglas
- Renovated footbridge



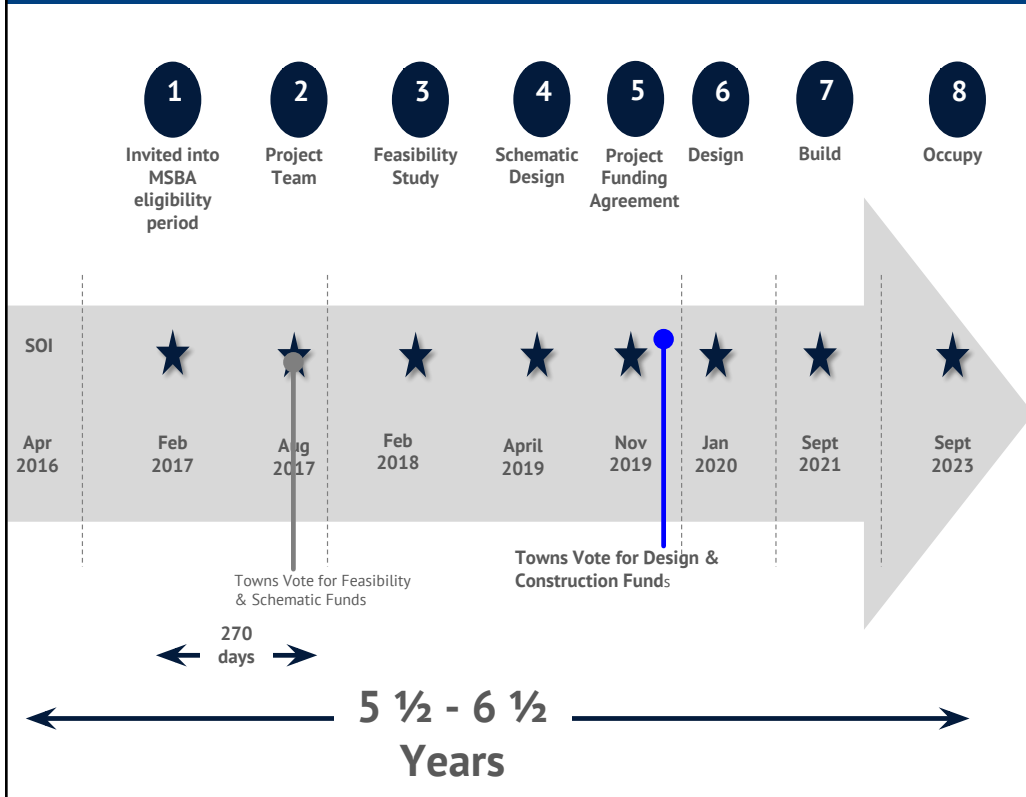
OPTION 4.1 PRELIMINARY MASSING

ARROWSTREET CT DOUGLAS ELEMENTARY SCHOOL Acton Boxborough, Massachusetts

SCHOOL BUILDING COMMITTEE PRESENTATION / January 9, 2019

**ABRSD**

21



## High Level Estimated Project Cost

- Current EARLY Estimated Cost: \$120M - \$130M
- MSBA reimbursement 35% - 45% \$40M - \$60M
- Estimated AB Share \$70M - \$80M
- Estimated Acton Share: \$60M - \$68M  
(*Estimated Tax Impact - Single Family Home Property Tax Increase \$650 - \$850*)
- Estimated Boxborough Share\*: \$10M - \$12M  
(*Estimated Tax Impact - Single Family Home Property Tax Impact \$450 - \$600*)
- Short term BANs until FY23



Our **vision** is to provide high-quality educational opportunities that inspire a community of learners

WELLNESS • EQUITY • ENGAGEMENT

Our **mission** is to develop engaged, well-balanced learners through collaborative, caring relationships

## Superintendent's Closing Remarks

---