

# Owner's Project Manager (OPM)

Belmont High School  
February 15, 2017 | Presentation





**JOE NAUGHTON**

AIA, LEED AP

PRINCIPAL-IN-CHARGE

**K-12 PROJECTS:**

East Bridgewater Jr/Sr. HS  
Southeastern Reg. Voc. HS  
Dracut High School  
Tri-County High School  
Marlborough High School  
Melrose High School  
Leicester High School  
Wareham High School  
Webster’s Park Avenue ES  
Revere Hill School  
Revere Paul Revere  
Revere Rumney March  
West Revere Complex  
Howe Manning ES  
Kane Elementary School  
Estabrook Elementary  
Stoughton (3 schools)  
Hatfield Academy  
Peabody Kennedy School  
And 9 other schools



**PAUL KALOUS**

AIA, MCPPO

PROJECT DIRECTOR/SR. PM

**MSBA FUNDED PROJECTS:**

Natick High School  
Everett High School  
East Bridgewater Jr/Sr. HS  
Southeastern Reg. Voc. HS  
Dracut High School  
Tri-County High School  
Marlborough High School  
Melrose High School  
Leicester High School  
Wareham High School  
Kane Elementary School  
Estabrook Elementary  
Stoughton (3 schools)  
Hatfield Academy  
Peabody Kennedy School  
Abington Woodsdale ES  
Braintree – 5 schools  
Braintree East Middle  
Groton Dunstable MS  
Gardner Elm Street  
And 2 other schools



**INGER HAMRE-FOLEY**

MCPPO

PROJECT COORDINATOR

**MSBA FUNDED PROJECTS:**

Braintree East Middle  
Atlantis Charter School Study  
Hadley Elementary School  
Southeastern Reg. Voc. HS  
Estabrook Elementary School  
Marlborough High School  
Kane Elementary School  
Dracut High School  
East Bridgewater High School



**MARTY GOULET**

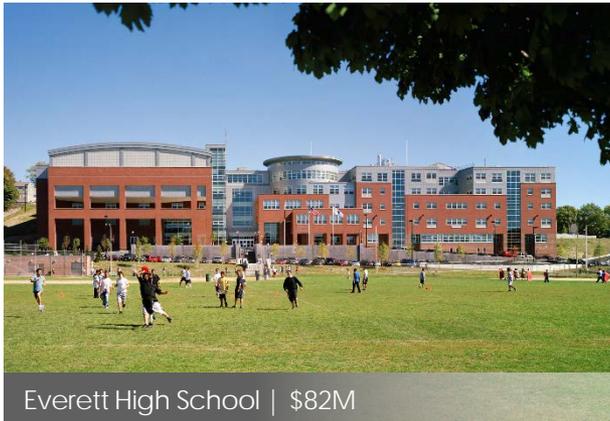
MCPPO

SITE PROJECT MANAGER

**K-12 PROJECTS:**

Webster Park Elementary  
Dracut High School  
Estabrook Elementary School  
Burgess Elementary School  
Boylston Elementary School  
Park Avenue Elementary School  
Glenwood Elementary School  
Spencer-East Brookfield RSD  
Rutland Elementary School  
Spencer Middle School  
Boylston Elementary School  
Pepperell Middle School  
Varnum Brook Elementary School  
Narragansett High School

# Relevant Experience



# Project Understanding

- Solve overcrowding for High School and Middle School grades as well
- Increase High School learning space
- Provide 21st century collaborative team learning spaces
- Provide adequate science/STEM space
- Improve the quality of the facility



# Question 1

1 Please provide detailed information on the roles each member of your team will play, relative to the various phases of the project. Include the time commitments that can be expected of each team member during the particular phases. Identify which team members will be expected to attend the various meetings and presentations that will take place over the duration of the project, including those with stakeholders, including, but not limited to, school staff, students and parents. Please indicate which team member is expected to be the prime contact with the Massachusetts School Building Authority. The BHSBC is anxious to get to know the individuals that will be working with the Committee on a daily basis. Therefore, we request that each team members be prepared to speak directly on the roles they will be playing for this project.

2 As OPM, you are the advocate for, and assistant to, the Owner during design and construction. Discuss how you will interact with the design team and contractor during the project relative to addressing the desires of the Owner, and keep the Owner informed on project scope, schedule, and budget. Provide an example from a prior project.

3 Provide a spreadsheet indicating your proposed cost estimator's performance with Chapter 149 and 149A public projects over the last ten years. Information in a spreadsheet form is preferred, noting pre-bid estimate, actual bid amount, and final construction costs. Overall project contingencies should be noted in bulk dollars as well as percentage of estimated construction cost.

4 Modern HVAC and lighting systems often have an overall Building Management System (BMS) or Energy Management System (EMS) controlling them. Frequently when a project is complete, Owners struggle with understanding, operating and maintaining such systems due to their complexity. What is your approach to ensure the Owner can effectively operate these systems after the project is complete.

5 In an MSBA funded School project such as Belmont High School, please describe the areas in which an OPM provides the greatest value to an Owner. Describe the characteristics of your firm which demonstrate that you can provide the highest level of value for Belmont.

# Question 1



Joe Naughton  
AIA, LEED AP

Paul Kalous  
AIA, MCPPO

Inger Hamre-Foley  
MCPPO

Marty Goulet  
MCPPO

CORE TEAM

	Joe Naughton	Paul Kalous	Inger Hamre-Foley	Marty Goulet
Strategy				
Resource Management				
Overall Team Direction				
Building Committee Meetings				
Team Management				
Risk Assessment/Management				
Day-to-Day Client Interface				
Educational Planning		●		
MSBA Lead				
MSBA Submissions/Propay				●
Design Team Management				
Contractor Team Management				
Document Review	●	●	●	●
Cost Estimating				●
Project Scheduling		●		
Project Team Management				
User Meeting Coordination				
Logistics Planning	●			
Contractor Prequalification				●
Procurement			●	
Contract Management				
Project Controls				●
Job Site QA/QC			●	●
Principal Liaison				●
Commissioning Coordination			●	
MEP Systems			●	
FF&E Coordination				●
Technology Coordination				●

Joe Reilly   Mark McDowell   Dan Tuberty   Frank Murphy   Rick Anderson   Allyson Toner   Kate Schroth   Fred Scibelli

RESOURCE POOL



# Question 1

## Responsibility Matrix

Each Module is in addition to the General Tasks



JOE NAUGHTON  
Principal-in-Charge



PAUL KALOUS  
Project Director/Sc. PM



INGER HAMRE-FOLEY  
Project Coordinator



MARTY GOULET  
Site Project Manager

General	JOE NAUGHTON Principal-in-Charge	PAUL KALOUS Project Director/Sc. PM	INGER HAMRE-FOLEY Project Coordinator	MARTY GOULET Site Project Manager				
Strategy								
Resource Management								
Overall Team Direction								
Building Committee Meetings								
Team Management								
Risk Assessment/Management								
Day to Day Client Interface								
MSBA Prime Contact								
MSBA Submissions / Propay								
Design Team Management								
Contractor Team Management								
<b>Module 2: Project Team</b>	10%	20%	20%	0%				
Designer Selection								
<b>Module 3: Feasibility Study</b>	10%	50%	40%	0%				
Preliminary Design Program								
Site Assessment								
Stakeholder Meetings								
Planning Options								
Cost Estimating / Budget / Schedule								
Town Information Forum								
Public Meetings / Community Review								
School Committee								
MSBA FSA Mtg / Preferred Schematic								
<b>Modules 4 &amp; 5: Schematic Design/PFA</b>	10%	50%	40%	0%				
Stakeholder Meetings								
Document Review								
Cost Estimating / Budget / Schedule								
Town Information Forum								
Project Scheduling								
School Committee								
MSBA Grant Submission								
Project Funding Agreement Approval								
<b>Module 6: DD, CDs, and Bidding</b>	10%	50%	40%	10%				
Document Review								
Cost Estimating								
Project Scheduling								
User Meeting Coordination								
Logistics Planning								
Contractor Prequalification								
Procurement / Contracting								
<b>Module 7: Construction Admin.</b>	10%	40%	50%	100%				
Contract Management								
Document Management								
Project Controls								
Job Site QA/QC								
Principal Liaison								
Commissioning Coordination								
MEP Systems Coordination								
FF&E Coordination								
Technology Coordination								
<b>Module 8: Closeout</b>	5%	10%	50%	50%				
O&M Manuals								
Final Contract Negotiations								
Final Propay BRR and Reimbursement								
	Joe Reilly	Mark McDowell	Dan Tuberty	Frank Murphy	Rick Anderson	Allyson Toner	Kate Schroth	Fred Scibell

# Question 1

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Principal-in-Charge



**PAUL KALOUS**  
Project Director/Sr. PM



**INGER HAMRE-FOLEY**  
Project Coordinator



**MARTY GOULET**  
Site Project Manager

General								
Strategy								
Resource Management								
Overall Team Direction								
<b>Building Committee Meetings</b>								
Team Management								
Risk Assessment/Management		●						
Day to Day Client Interface								
<b>MSBA Prime Contact</b>								
MSBA Submissions / Propay						●		
Design Team Management								
Contractor Team Management								
<b>Module 2: Project Team</b>	<b>10%</b>		<b>20%</b>		<b>20%</b>		<b>0%</b>	
Designer Selection								
	<b>Joe Reilly</b>	<b>Mark McDowell</b>	<b>Dan Tuberty</b>	<b>Frank Murphy</b>	<b>Rick Anderson</b>	<b>Allyson Toner</b>	<b>Kate Schroth</b>	<b>Fred Scibelli</b>

# Question 1

## Responsibility Matrix

Each Module is in addition to the General Tasks



**JOE NAUGHTON**  
Principal-in-Charge



**PAUL KALOUS**  
Project Director/Sr. PM



**INGER HAMRE-FOLEY**  
Project Coordinator



**MARTY GOULET**  
Site Project Manager

	10%		50%		40%		0%	
<b>Module 3: Feasibility Study</b>	10%		50%		40%		0%	
Preliminary Design Program			●					
Site Assessment								
Stakeholder Meetings								
Planning Options								
Cost Estimating / Budget / Schedule								
<b>Town Information Forum</b>								
Public Meetings / Community Review								
<b>School Committee</b>								
MSBA FSA Mtg / Preferred Schematic								
<b>Modules 4 &amp; 5: Schematic Design/PFA</b>	10%		50%		40%		0%	
Stakeholder Meetings								
Document Review	●	●	●	●	●			
Cost Estimating / Budget / Schedule				●				
<b>Town Information Forum</b>								
Project Scheduling		●						
<b>School Committee</b>								
MSBA Grant Submission								
Project Funding Agreement Approval								
	Joe Reilly	Mark McDowell	Dan Tuberty	Frank Murphy	Rick Anderson	Allyson Toner	Kate Schroth	Fred Scibelli

# Question 1

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Each Module is in addition to the General Tasks

	 <b>JOE NAUGHTON</b> Principal-in-Charge		 <b>PAUL KALOUS</b> Project Director/Sr. PM		 <b>INGER HAMRE-FOLEY</b> Project Coordinator		 <b>MARTY GOULET</b> Site Project Manager	
<b>Module 6: DD, CDs, and Bidding</b>	10%		50%		40%		10%	
Document Review	●	●	●	●	●			
Cost Estimating				●				
Project Scheduling		●						
User Meeting Coordination								
Logistics Planning	●							
Contractor Prequalification						●		
Procurement / Contracting					●			
	<b>Joe Reilly</b>	<b>Mark McDowell</b>	<b>Dan Tuberty</b>	<b>Frank Murphy</b>	<b>Rick Anderson</b>	<b>Allyson Toner</b>	<b>Kate Schroth</b>	<b>Fred Scibelli</b>

# Question 1

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<b>Module 7: Construction Admin.</b>	10%		40%		50%		100%	
Contract Management								
Document Management								
Project Controls						●		
Job Site QA/QC					●		●	●
Principal Liaison								
Commissioning Coordination					●			
MEP Systems Coordination					●			
FF&E Coordination							●	
Technology Coordination							●	
<b>Module 8: Closeout</b>	5%		10%		50%		50%	
O&M Manuals								
Final Contract Negotiations		●		●				
Final Propay BRR and Reimbursement						●		
	Joe Reilly	Mark McDowell	Dan Tuberty	Frank Murphy	Rick Anderson	Allyson Toner	Kate Schroth	Fred Scibelli

## Question 2

1 Please provide detailed information on the roles each member of your team will play, relative to the various phases of the project. Include the time commitments that can be expected of each team member during the particular phases. Identify which team members will be expected to attend the various meetings and presentations that will take place over the duration of the project, including those with stakeholders, including, but not limited to, school staff, students and parents. Please indicate which team member is expected to be the prime contact with the Massachusetts School Building Authority. The BHSBC is anxious to get to know the individuals that will be working with the Committee on a daily basis. Therefore, we request that each team members be prepared to speak directly on the roles they will be playing for this project.

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# Question 2

## Project Charter

### Definition of Project Success

The top items voted by the committee and project team that will make a successful Park Avenue School Building Project are listed below.

### *The Park Avenue Elementary School Project will:*

- ✓ New School for the Elementary Students
- ✓ Technology
- ✓ Best Bang for the Buck (times 3)
- ✓ On Time on Budget (times 2)
- ✓ Age Appropriate (times 2)
- ✓ Building scaled to the age group (times 2)
- ✓ Design to support 21<sup>st</sup> Century Skills
- ✓ Easy Access to media / technology
- ✓ Building that increases public support for the school system
- ✓ Use the building process to engage and excite the community
- ✓ Community use / Resource for Community
- ✓ Innovative
- ✓ Responsible / Visible Value
- ✓ Attract people into the community and promote larger Webster revitalization.
- ✓ Building to create excitement, appearance, feel (architectural) bring out the passion from within the families of the community
- ✓ Easy access I.E., limited ramping requirements
- ✓ Open and welcoming spaces
- ✓ Solve the vertical challenges of the site
- ✓ Green technologies / sustainability
- ✓ Low energy costs
- ✓ Unify the Town Boards in support of the project



# Question 2

## Meeting Schedule

25-Sep-14

Time	Wednesday September 24	Thursday September 25	Tuesday September 30	Wednesday October 1	Thursday October 2	Wednesday October 8	Thursday October 9	Wednesday October 15	Thursday October 16	Wednesday October 22	Thursday October 23	Wednesday October 29	Thursday October 30
8:00 - 10:00				Building Code Meeting 8:30 - 10:00		Trade Contractor SOQ's due by 2PM							Loading Dock Package Due
10:00 - 12:00	Steam Tunnel Construction Meeting South College 10:00 - 12:00	Core Team 10:00 - 12:00		Steam Tunnel Construction Meeting South College 10:00 - 12:00	Review West Façade with Juanita Holler (TBO) SD estimate and scope reconciliation 10:00 - 3:00	Steam Tunnel Construction Meeting South College 10:00 - 12:00	Faculty 10:00-3:00	Steam Tunnel Construction Meeting South College 10:00 - 12:00	MEP incl. CX 10:00-12:00	Steam Tunnel Construction Meeting South College 10:00 - 12:00	Exterior Design, Exterior Envelope Analysis, Structural Design (with lunch break) 10:00-2:00	Steam Tunnel Construction Meeting South College 10:00 - 12:00	Architectural Acoustics, Audio Visual Design, Low Voltage, Detail Classroom Design (with lunch break) 10:00 - 3:00
12:00 - 2:00		Design Mtg (Façade, Meeting Schedule) 12:30 - 2:00	Cost Estimate Reconciliation 10:30 - 3:30	Last day for questions on RFQ for Trade Contractors	Lighting Design 1:00 - 2:30	Temporary Loading Dock Progress 12:30 - 2:30		Building Code Update 12:30 - 1:30	Prequalification Crite Meeting 12:30 - 3:00			Mechanical Design Update 12:30 - 2:00	
2:00 - 4:00					Site Design 3:00 - 4:00		Prequalification Crite Meeting 2:30 - 4:00	LEED 1:30 - 3:00			Site Design 2:00 - 3:00	Prequalification Crite Meeting 2:00 - 4:00	

UMass Participants	Executive Oversight Committee	Vision Group	Core Team	Faculty	Building Design	Site Design	Civil/Utilities/ O&M	MEP/Energy/ Sustainability	Classrooms	Construction	Trade Contractor Prequalification
Chncrlr Subbaswami	Jim Staros	Jim Staros	Bryan Harver	Tom Huf	Carol Barr	Bryan Harver	Tom Shaw	Tom Shaw	Carol Barr	Tom Shaw	Kevin Burns
Jim Staros	Jim Sheehan	Jim Sheehan	Juanita Holler	Pam Rooner	Bryan Harver	Juanita Holler	John Mathews	John Mathews	Bryan Harver	John Mathews	Henry Marrison
Carol Barr	Carol Barr	Raz Jackson	Jeff Dalsall	Henry Marrison	Jeff Dalsall	Tom Shaw	Jason Vinditti	Jason Vinditti	Tom Huf	Henry Marrison	Don Kiama
Mike Malone	Mike Malone	Mike Malone	Shane Conklin	Nariman Mostafavi	Tom Shaw	John Mathews	Simon Raine	Lu Pavlov	Pam Rooner	Jason Vinditti	Paul Kalous
John Dubach	John Dubach	Bryan Harver	Tom Shaw	Joe Bartolomeo	John Mathews	Dennis Swinford	Jeff Dalsall	Patricia O'Faherty	Jeff Dalsall	Henry Marrison	
Bryan Harver	Bryan Harver	Juanita Holler	John Mathews	Joanne Dolan	Dennis Swinford	Simon Raine	Henry Marrison	Nariman Mostafavi	Pam Monn		
Juanita Holler	Juanita Holler	Shane Conklin	Dennis Swinford	Joanne Dolan	Tom Huf	Pam Rooner	Henry Marrison	Henry Marrison	Pam Monn		
Shane Conklin	Shane Conklin	Tom Shaw	Tom Huf	Joanne Dolan	Pam Rooner	Jeff Dalsall	Henry Marrison	Garry Glasler	Henry Marrison		
Tom Shaw	Dennis Swinford	Dennis Swinford	Jeff Dalsall	Henry Marrison	Jeff Dalsall	Henry Marrison	Henry Marrison	Jason Burbank	Henry Marrison		
Dennis Swinford	Julia Hayes	Julia Hayes	Henry Marrison	Joseph Levine	Julia Hayes	Brook Cuttine	Jason Burbank	Joe Bartolomeo	Joe Bartolomeo		
Julia Hayes	Joe Bartolomeo	Joe Bartolomeo	Joe Bartolomeo	Joanne Dolan	Joe Bartolomeo	Joanne Dolan	Joanne Dolan	Joanne Dolan	Joanne Dolan		
Joe Bartolomeo	Joanne Dolan	Joanne Dolan	Joanne Dolan	Joanne Dolan	Joanne Dolan	Joanne Dolan	Joanne Dolan	Joanne Dolan	Joanne Dolan		



# Question 2

	Option 1A New & Renovation	Option 1B New & Renovation	Option 1C New & Renovation	Model School - New Construction	Local Option - Piecemeal Repairs
<b>PROGRAM</b>					
Enrollment	1160	1160	1160	1160	1160
Total Area of Renovation	156,980	157,180	144,380	0	174,610
Total Area of New Construction	62,400	58,300	75,400	229,262	0
Total Building Area	219,380	216,080	219,780	229,262	174,610
Construction Start	Spring 2012	Spring 2012	Spring 2012	Winter 2011	2
Project Duration	2 years	2 years	2 years	2 years	10 years
School Opens	Fall 2014	Fall 2014	Fall 2014	Fall 2014	NA

June 30, 2010	Option 1A New & Renovation	Option 1B New & Renovation	Option 1C New & Renovation	Model School - New Construction	Local Option - Piecemeal Repairs
<b>PROGRAM</b>					
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School Opens	Fall 2014	Fall 2014	Fall 2014	Fall 2014	NA

PROJECT BUDGET					
<b>PROJECT TOTALS</b>	<b>\$ 54,400,678.00</b>	<b>\$ 53,065,144.50</b>	<b>\$ 57,397,593.00</b>	<b>\$ 88,943,338.57</b>	<b>\$ 29,008,667.60</b>
Total Reimbursable Costs	\$ 54,370,678.00	\$ 53,035,144.50	\$ 57,367,593.00	\$ 87,673,338.57	\$ -
Total Non-reimbursable Costs	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 1,270,000.00	\$ 29,008,667.60
MSBA Reimbursement	\$ 32,698,525.75	\$ 31,895,335.90	\$ 34,127,981.08	\$ 53,165,112.51	\$ -
Total Dracut Share**	\$ 21,702,152.25	\$ 21,169,808.60	\$ 23,269,611.92	\$ 35,778,226.06	\$ 29,008,667.60

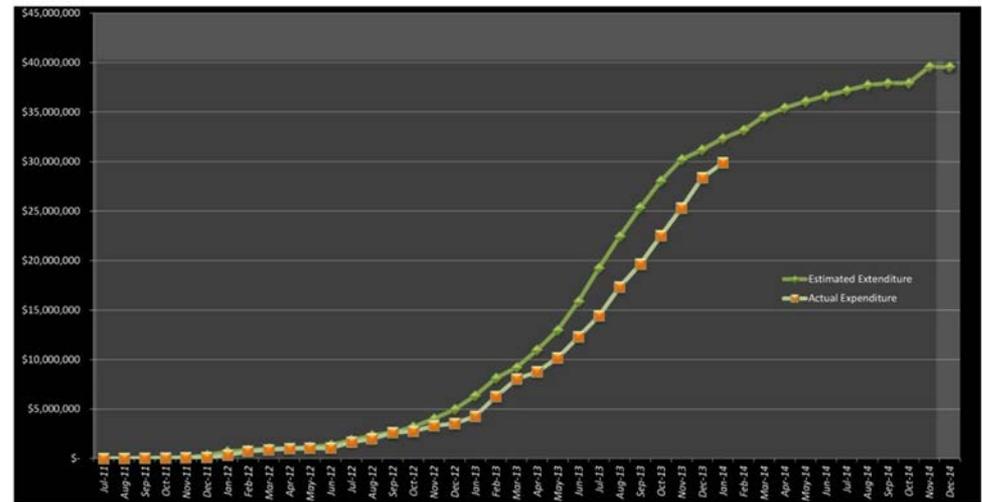
Library Books, Multi-Media Software	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00
Technology	\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00
Subtotal	\$ 4,425,000.00	\$ 4,425,000.00	\$ 4,425,000.00	\$ 4,425,000.00	\$ 4,425,000.00
<b>OWNER'S CONTINGENCY</b>					
Construction Cost x 5%	\$ 1,887,429.00	\$ 1,843,953.00	\$ 2,864,219.30	\$ 3,419,139.30	\$ 942,454.00
<b>PROJECT BUDGET</b>					
<b>PROJECT TOTALS</b>	<b>\$ 54,400,678.00</b>	<b>\$ 53,065,144.50</b>	<b>\$ 57,397,593.00</b>	<b>\$ 88,943,338.57</b>	<b>\$ 29,008,667.60</b>
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Total Dracut Share**	\$ 21,702,152.25	\$ 21,169,808.60	\$ 23,269,611.92	\$ 35,778,226.06	\$ 29,008,667.60

\* Design construction cost estimates are based on 2010 costs  
 \*\* Includes site costs such as new athletic fields that are not eligible for funding under MSBA rules.

# Question 2

Project Name		<b>HILL</b>				
Project Budget		<b>Hill International</b>				
April 1, 2014						
Description	PFA Bid Adjustment Budget	Authorized Changes	Approved Budget	Encumbered Balance	Expenditures to Date	Balance To Spend
<b>Construction</b>						
CM at Risk- Preconstruction	\$ 90,000	0	\$ 90,000	0	\$ 90,000	\$ -
CM at Risk- Construction	\$ 32,462,348	0	\$ 32,462,348	\$ 5,767,610	\$ 26,694,738	\$ -
CM at Risk-Contingency	\$ 330,000	0	\$ 330,000	\$ 270,072	\$ 59,928	\$ -
CM at Risk- Change Orders	-	\$ 560,694	\$ 560,694	\$ 206,275	\$ 354,419	\$ -
<b>Subtotal</b>	<b>\$ 32,882,348</b>	<b>\$ 560,694</b>	<b>\$ 33,443,042</b>	<b>\$ 6,243,957</b>	<b>\$ 27,199,085</b>	<b>\$ -</b>
<b>Architectural &amp; Engineering</b>						
Designer - Basic Services	\$ 3,014,250	\$ -	\$ 3,014,250	\$ 360,021	\$ 2,654,229	\$ -
Reimbursable Services	\$ 292,623	\$ (59,231)	\$ 233,392	\$ 55,847	\$ 55,626	\$ 121,920
Hazardous Materials	\$ 117,110	\$ 32,890	\$ 150,000	\$ 92,679	\$ 57,321	\$ -
Geotech & GeoEnvironmental	\$ 36,707	\$ -	\$ 36,707	\$ 7,871	\$ 28,837	\$ -
Site Survey	\$ 1,500	\$ 0	\$ 1,500	\$ -	\$ 1,500	\$ -
Wetlands	\$ 2,060	\$ 0	\$ 2,060	\$ -	\$ 2,060	\$ -
Traffic Studies	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ -
<b>Subtotal</b>	<b>\$ 3,464,250</b>	<b>\$ (26,341)</b>	<b>\$ 3,437,909</b>	<b>\$ 516,417</b>	<b>\$ 2,799,572</b>	<b>\$ 121,920</b>
<b>Administrative Costs</b>						
Owner's Project Manager Basic Services	\$ 1,162,600	\$ -	\$ 1,162,600	\$ 19,000	\$ 1,143,600	\$ -
OPM: Cost Estimates	\$ 55,000	\$ -	\$ 55,000	\$ 4,000	\$ 51,000	\$ -
Reimbursable Services	\$ 15,800	\$ -	\$ 15,800	\$ -	\$ 15,800	\$ -
Legal Fees	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -
Advertising	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -
Owner's Insurance - Builder's Risk	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ 50,000	\$ -
Other Administrative Costs (Bond Financing Costs)	\$ 60,000	\$ -	\$ 60,000	\$ -	\$ 60,000	\$ -
Env. & Site	\$ 32,500	\$ -	\$ 32,500	\$ -	\$ 32,500	\$ -
<b>Subtotal</b>	<b>\$ 1,415,900</b>	<b>\$ -</b>	<b>\$ 1,415,900</b>	<b>\$ 23,000</b>	<b>\$ 1,392,900</b>	<b>\$ 22,900</b>
<b>Furniture, Fixtures, and Equipment</b>						
Furnishing	\$ 860,000	\$ 38,600	\$ 898,600	\$ 29,000	\$ 869,600	\$ 29,000
Equipment (Phone System)	\$ 80,000	\$ 45,734	\$ 125,734	\$ 11,000	\$ 114,734	\$ 11,000
Computer Equipment	\$ 791,500	\$ -	\$ 791,500	\$ 10,000	\$ 781,500	\$ 10,000
<b>Subtotal</b>	<b>\$ 1,731,500</b>	<b>\$ 84,334</b>	<b>\$ 1,815,834</b>	<b>\$ 50,000</b>	<b>\$ 1,766,834</b>	<b>\$ 49,000</b>
<b>Miscellaneous Project Costs</b>						
Utility Fee	\$ 50,000	\$ 47,605	\$ 97,605	\$ -	\$ 97,605	\$ -
Testing Services	\$ 110,000	\$ -	\$ 110,000	\$ -	\$ 110,000	\$ -
Other Project Costs (Mailing & Moving)	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -
<b>Subtotal</b>	<b>\$ 235,000</b>	<b>\$ 47,605</b>	<b>\$ 282,605</b>	<b>\$ -</b>	<b>\$ 282,605</b>	<b>\$ -</b>
<b>Project Sub-Total</b>	<b>\$ 39,728,998</b>	<b>\$ 666,292</b>	<b>\$ 40,395,290</b>	<b>\$ 7,577,000</b>	<b>\$ 32,818,290</b>	<b>\$ 7,577,000</b>
<b>Project Contingency</b>						
Owner's Contingency	\$ 643,301	\$ (456,386)	\$ 186,915	\$ -	\$ 186,915	\$ -
Construction Contingency	\$ 419,949	\$ (209,906)	\$ 210,043	\$ -	\$ 210,043	\$ -
<b>Subtotal</b>	<b>\$ 1,063,250</b>	<b>\$ (666,292)</b>	<b>\$ 396,958</b>	<b>\$ -</b>	<b>\$ 396,958</b>	<b>\$ -</b>
<b>Project Total</b>	<b>\$ 40,792,248</b>	<b>\$ -</b>	<b>\$ 40,792,248</b>	<b>\$ 7,577,000</b>	<b>\$ 33,215,248</b>	<b>\$ 7,577,000</b>

Project Name  
Estimated Project Cash Flow



**HILL**  
Hill International

## Question 2

### Staff Sergeant James J. Hill School City of Revere

Project Manager's Report  
*February 2015*



Hill International, Inc.  
330 Congress Street  
Boston, MA 02210  
617-778-0900  
www.hillintl.com



- ✓ MSBA Funding thru ProPay
- ✓ MSBA Submissions
- ✓ Monthly Reports
- ✓ Agendas and Meeting Minutes
- ✓ Project budget and schedule control
- ✓ Document review and control

# Question 2

## Drawing Review Qualitative

#	Topic	Comment	Reference	Suggestion	Status
<b>Civil</b>					
C1	Chilled water service	Chilled water supply and return are not shown on the civil or HVAC drawings. It is expected that the F chilled water will be fed from the mechanical room below the parking lot in front of the Yawkey Building.	C1, H200	Please confirm tapping equipment needed, booster pumps if required, and the 4" lines from Yawkey to F and back the Yawkey mechanical room. (Estimate carries piping through Yawkey tunnel.)	Open
C2	Steam service	The steam service from M is not called out on the plans	C1, H200	Please confirm tapping equipment needed, and how the existing service must be modified to serve the heat demand of F. (Estimate carries re-use of existing supply line.)	Open
C3	Underground communications	In the 8/22/05 scope meeting, Owner requested that the underground communications north and west of the F Building which is indicated as being under another (B) contract should be included within F scope per Owner. This was later revised by Owner in Architect email dated 8/29/05 calling for tel/data connection to tunnel only. DD: Communication lines shown from manhole in front of M to chimney into existing crawl space which enters west side of F. Under separate contract.	C1,E101, 8/29/05 Architect email	SD cost estimate is based on plans as shown.	Closed
C4	Electrical Service	An electrical service to the building has not been indicated on the Civil or the electrical site plan. DD: Temporary Electrical service shown from manhole in front of M to new handhole 10' off west side of F. Under separate contract. Permanent Electrical service from campus loop not shown.	C1, E101	Show proposed electrical service on electrical and or civil site plans. (Estimate includes a new service from Harrison Avenue with a pad mounted transformer.) DD: show permanent Electrical service from campus loop passing through new handhole in front of A entering west side of F. Under separate contract.	Open
C5	Downspouts	Downspouts on Site Utility Plan are not coordinated with the building elevations on sheet A702 and A703	C1, A702, A703	Done	Closed

## Question 2



"Wet" material unsuitable for placing asphalt



Removal of the saturated material



The Right Solution  
\$37,000  
Claim Avoidance



**Non-compliant report issued**

# Question 3

- 1 | Please provide detailed information on the roles each member of your team will play, relative to the various phases of the project. Include the time commitments that can be expected of each team member during the particular phases. Identify which team members will be expected to attend the various meetings and presentations that will take place over the duration of the project, including those with stakeholders, including, but not limited to, school staff, students and parents. Please indicate which team member is expected to be the prime contact with the Massachusetts School Building Authority. The BHSBC is anxious to get to know the individuals that will be working with the Committee on a daily basis. Therefore, we request that each team members be prepared to speak directly on the roles they will be playing for this project.
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# Question 3

## Cost Estimating Performance

Project Delivery	Project Type	Project Name	Location	Pre-Bid Estimate	Budgeted Contingency	Contingency Percentage	Actual Bid Amount	Final Construction Cost
149	Education	(Braintree) East Middle School Green Repair Program (Window)	Braintree, MA	\$1,421,899	\$35,113	2%	\$1,382,193	\$1,411,363
149	Education	(Braintree) High School Green Repair Program (Roof)	Braintree, MA	\$461,950	\$18,800	4%	\$367,500	\$359,200
149	Education	(Braintree) Hollis, Highlands & Morrison Elem Schools - Green Repair	Braintree, MA	\$1,015,295	\$121,569	12%	\$870,000	\$910,266
149	Education	(Gardner) Elm Street School Accelerated Repair	Gardner, MA	\$3,509,176	\$184,744	5%	\$2,479,542	\$2,560,461
149	Education	(Groton-Dunstable) Regional Middle School Green Repair Program	Groton, MA	\$1,264,769	\$70,283	6%	\$942,000	\$982,693
149	Education	(Marlborough) Francis Kane ES - Green Repair	Marlborough, MA	\$851,187	\$59,480	7%	\$502,986	\$604,489
149	Education	(Marlborough) High School Green Repair	Marlborough, MA	\$6,017,715	\$331,599	6%	\$5,416,660	\$5,453,667
149	Education	(Melrose) High School Science Lab Initiative	Melrose, MA	\$4,608,349	\$389,183	8%	\$3,398,000	\$3,587,067
149	Education	(Peabody) McCarthy Memorial ES - Accelerated Repair	Peabody, MA	\$4,112,571	\$175,336	4%	\$3,806,054	\$3,588,934
149	Education	(Revere) Paul Revere School	Revere, MA	\$17,409,000	\$1,021,952	6%	\$17,058,354	\$16,985,012
149	Public Safety	(Revere) Police & Fire Facility	Revere, MA	\$19,179,221	\$823,750	5%	\$16,475,000	\$16,293,815
149	Education	(Revere) Rumney Marsh Academy	Revere, MA	\$23,500,000	\$1,229,200	5%	\$24,584,000	\$25,813,200
149	Education	(Revere) SS James J. Hill Elementary School	Revere, MA	\$33,216,037	\$1,815,000	5%	\$31,575,000	\$32,796,787
149	Education	Dracut Senior High School	Dracut, MA	\$48,761,626	\$2,849,031	6%	\$45,900,000	\$48,551,860
149	Education	East Bridgewater Jr/Sr High School	East Bridgewater, MA	\$61,428,887	\$3,016,007	5%	\$61,054,000	\$63,452,294
149	Education	Everett High School	Everett, MA	-	-	-	\$63,956,850	\$65,981,049
149	Education	High School Roof Replacement	Leicester, MA	\$2,097,427	\$111,291	5%	\$1,237,000	\$1,239,202
149	Education	Howe-Manning Elementary School	Middleton, MA	\$21,668,420	\$1,779,454	8%	\$17,857,000	\$19,086,085
149	Municipal	Marlborough Senior Center	Marlborough, MA	\$6,390,481	\$428,829	7%	\$6,410,682	\$6,715,590
149	Education	Natick High School	Natick, MA	\$69,965,825	\$4,828,800	7%	\$61,641,865	\$63,718,227
149	Education	Wareham High School Accelerated Repair	Wareham, MA	\$2,256,596	\$119,487	5%	\$869,600	\$917,763
149	Education	Tri-County Regional Voc. Tech. High School	Franklin, MA	\$1,139,946	\$86,936	8%	\$908,800	\$924,640
149	Education	Webster Park Avenue Elementary School	Webster, MA	\$35,840,565	\$1,920,987	5%	\$32,370,000	\$33,477,884
149A	Education	(Lexington) Diamond Middle School	Lexington, MA	\$35,375,834	\$2,547,252	7%	\$33,565,892	Completion Fall 2018
149A	Education	(Lexington) Estabrook Elementary School	Lexington, MA	\$32,149,592	\$1,063,250	3%	\$32,792,348	\$33,194,578
149A	Education	(Lexington) Jonas Clarke Middle School	Lexington, MA	\$15,130,473	\$1,028,810	7%	\$15,770,050	Completion Fall 2017
149A	Education	Abby Kelley Foster Charter Public School	Worcester, MA	\$15,606,549	\$1,652,495	11%	\$15,443,377	\$16,998,329
149A	Education	Atlantis Charter School	Fall River, MA	\$29,523,993	\$2,038,985	7%	\$26,923,258	Completion Spring 2018
149A	Higher Ed.	Bridgewater State University	Bridgewater, MA	\$49,500,000	\$4,000,000	8%	\$49,011,000	\$50,800,000
149A	Public Safety	Malden Police Headquarters	Malden, MA	\$12,866,618	\$233,398	2%	\$12,294,368	\$12,269,222
149A	Education	Southeastern Regional Voc. Tech. High School	South Easton, MA	\$27,048,216	\$1,723,203	6%	\$26,700,000	\$27,590,926
149A	Higher Ed.	UMass Amherst - Design Building	Amherst, MA	\$38,298,168	\$3,823,695	10%	\$38,298,553	\$39,570,380
149A	Higher Ed.	UMass Amherst - South College	Amherst, MA	\$46,857,727	\$6,200,000	13%	\$47,232,263	\$49,679,163
149A	Higher Ed.	Umass Lowell - North Quad	Lowell, MA	\$13,988,930	\$1,510,249	12%	\$12,811,843	\$15,227,924
149A	Higher Ed.	Umass Dartmouth - SMAST	New Bedford, MA	\$40,230,788	\$3,317,433	9%	\$37,503,066	Completion Fall 2017

# Question 3

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# Question 4

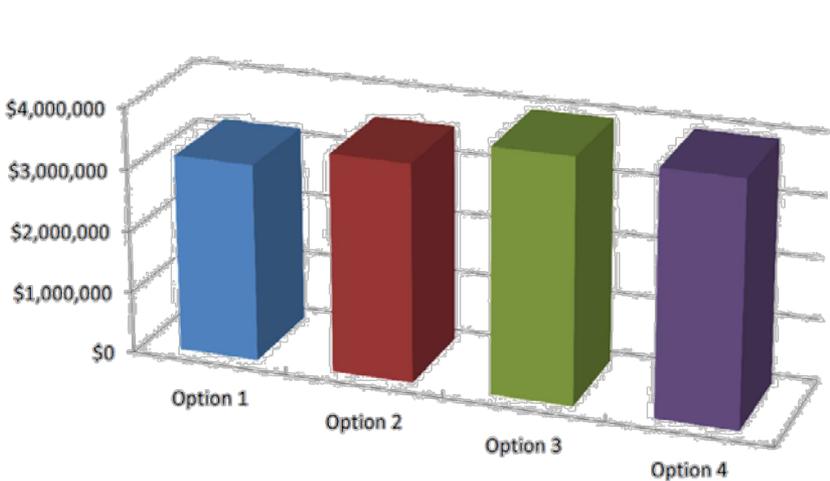
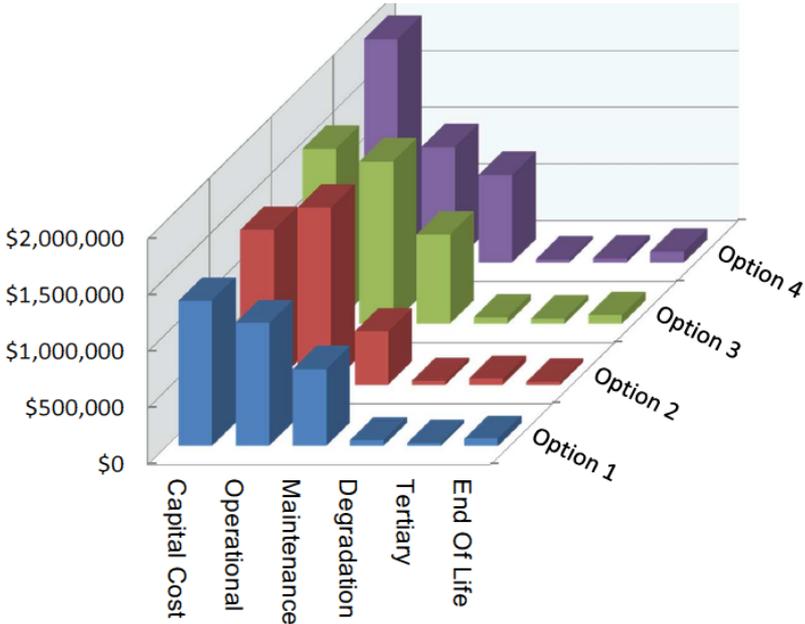
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# Question 4

## Life Cycle Cost Analysis



OPTION 1	OPTION 2	OPTION 3	OPTION 4
Variable Flow Refrigerant with Supplement Hydronic Heat	Variable Air Volume with Terminal Hydronic Reheat	4-Pipe Fan Coil Unit System	Geothermal Water Source Heat Pump

# Question 4

Modern HVAC and Lighting Systems

Planning and Design Phase

Construction Phase



# Question 4

## Documents library

training video

Arrange by: Folder ▾



Sign-in Sheets



Boilers (Frank I. Rounds)  
1-22-14.mp4



RTU's (Trane)  
1-27-14.mp4



HVAC & Plumbing  
Overview (E Amanti) 1-28-...



ERU's (E Amanti)  
1-29-14.mp4



ATC (Viking Controls)  
1-30-14.mp4



Pump Equipment  
(Armstrong) 2-3-14.mp4



Generator (Griffin)  
2-4-14.mp4



Overall Electrical  
(Griffin) 2-4-14.mp4



Sprinkler Fire Protection  
(Cogswell) 2-6-14 .mp4



Lighting 'nLight'  
Controls (Acuity) 2-7-1...



Fire Alarm (Simplex)  
2-7-14.mp4



Scoreboards (Nevco)  
2-11-14.mp4



Gym Floor (Allegheny)  
2-11-14.mp4



Lobby Security Grille (Collins Overhead)  
2-11-14.mp4



Marmoleum Floors (Forbo)  
2-12-14.mp4



Cafe Partition Wall (Corbin Hufcor)  
2-14-14.mp4



Projection Screen (NE Interiors)  
2-12-14.mp4



Stage Curtain (Walker Specialties)  
2-12-14.mp4



Window Treatments (Walker Specialties) 2-...



PA-Clock System (Eastcoast)  
2-18-14.mp4



Security System (Eastcoast)  
2-18-14.mp4



Telecom (Eastcoast)  
2-14-14.mp4



Domestic Water Heaters (Emerson Swan)  
2-19-14.mp4



Kitchen Equipment - Slicer (Bizerba)  
2-19-14.mp4



Local Sound Systems (Simplex)  
2-21-14.mp4



Classroom Audio (Lightspeed)  
2-21-14 .mp4



Elevators (Eagle)  
2-18-14.mp4



Kitchen Equipment - Convection Oven (Blodgett)...



Kitchen Equipment - Steamer (Evolution).mp4

Hill International

# Question 5

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# Question 5

## Massachusetts School Building Authority (“MSBA”) – Reimbursement Rate Calculation

- Reimbursement rates for MSBA approved, eligible school construction and renovation projects are calculated pursuant to a formula that is established in Massachusetts General Law, Chapter 70B section 10 (M.G.L. c. 70B § 10).
- The statutory formula starts **all districts** at a Base Rate of 31 percentage reimbursement points.
- The Base Rate of 31 percentage reimbursement points may be adjusted based on three socioeconomic factors:

- **Community Income Factor:** the district’s per capita income as a percent of statewide average per capita income. This data is provided by the Department of Revenue. Pursuant to statute, there is a sliding scale for the allocation of percentage points for this category based on community’s relationship to the statewide average.
- **Community Property Wealth Factor:** the district’s per capita equalized property valuations as a percent of statewide average per capita valuations. This data is provided by the Department of Revenue. Pursuant to statute, there is a sliding scale for the allocation of percentage points for this category based on the community’s relationship to the statewide average.
- **Community Poverty Factor:** measured by the district’s proportion of low income students, as defined by federal eligibility for free or reduced price lunch, as a percent of the statewide average proportion of low income students. This data is provided by the Department of Education. Pursuant to statute, there is a sliding scale for the allocation of percentage points for this category based on community’s relationship to the statewide average.

- The last step in the reimbursement rate calculation process is for the MSBA, in its sole discretion, to review if a district is eligible for Incentive Points. Statute dictates that no district shall be eligible for more than 18 Incentive Points in total, and that no one category of Incentive Points can be more than 6 points. Current categories of Incentive Points are:
  - Model School Program (up to 5 points)
  - Newly Formed Regional School District (up to 6 points)
  - High Efficiency Green School Program (up to 2 points)
  - Best Practices for Routine and Capital Maintenance (up to 2 points)
  - Overlay Zoning (MGL 40R or 40S) (up to 2 points)
  - Use of CM-at-Risk (up to 1 point)
  - Renovation/Re-use of Existing Facilities (up to 5 points)
  - Establishing a Maintenance Trust (up to 1 point with district match)

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- The sum of the Base Rate, plus additional points, if any, from the three socioeconomic factors, plus Incentive Points, if any, results in the MSBA’s reimbursement rate for a project.

Base Rate (31 points)  
+ Community Income Factor (if any)  
+ Community Property Wealth Factor (if any)  
+ Community Poverty Factor (if any)  
+ Incentive Points (if any, in the sole discretion of MSBA)  
= MSBA Reimbursement Rate

- It should be noted that regional school district reimbursement rates are calculated using the same data and factors, but each socioeconomic factor is weighted to reflect each municipality’s representation of the total regional district enrollment.

# Question 5

## Total Project Budget

**Southeastern Regional School District**  
**Southeastern Regional Vocational Technical High School**

3/8/2011

TOTAL PROJECT BUDGET - ALL COSTS ASSOCIATED WITH THE PROJECT ARE SUBJECT TO 963 CMR 2.16(5)	Estimated Budget
Feasibility Study Agreement	
OPM Feasibility Study	\$15
A&E Feasibility Study	\$30
Env. & Site	
Other	
<b>Feasibility Study Agreement Subtotal</b>	<b>\$45</b>
Administration	
Legal Fees	
Owner's Project Manager	
Design Development	\$6
Construction Contract Documents	\$10
Bidding	\$5
Construction Contract Administration	\$50
Closeout	\$2
Extra Services	
Reimbursable & Other Services	
Cost Estimates	
Advertising	\$
Permitting	
Owner's Insurance	
Other Administrative Costs	\$1
<b>Administration Subtotal</b>	<b>\$78</b>
Architecture and Engineering	
Basic Services	
Design Development	\$46
Construction Contract Documents	\$78
Bidding	\$11
Construction Contract Administration	\$53
Closeout	\$2

## Total Project Budget

Southeastern Regional School District		3/8/2011	
Southeastern Regional Vocational Technical High School			
TOTAL PROJECT BUDGET - ALL COSTS ASSOCIATED WITH THE PROJECT ARE SUBJECT TO 963 CMR 2.16(5)	Estimated Budget	*Cost/Scope Items Excluded from the Total Facilities Grant	*Ineligible Costs
<b>FF&amp;E Subtotal</b>	<b>\$1,150,000</b>	<b>\$0</b>	<b>\$0</b>
Owner's Contingency			
Owner's Contingency	\$394,375		
Soft Costs that exceed 20% of Const'n Cost			
<b>Total Project Budget</b>	<b>\$32,977,475</b>	<b>\$491,716</b>	<b>\$0</b>
Alternates	\$1,282,812		
Ineligible cost	\$0		
Scope items excluded	\$491,716		
Estimated Basis of Total Facilities Grant	\$32,485,759		
Reimbursement Rate	80.00%		
<b>Estimated Total Maximum Facilities Grant</b>	<b>\$25,988,607.56</b>		
School District Share	\$8,271,679.79		\$34,260,287.35

\*NOTE: This document was prepared by the MSBA based on a preliminary review of information and estimates provided by the Southeastern Regional School District for the Southeastern Regional Vocational Technical high School project. Based on this preliminary review, certain budget, cost and scope items have been determined to be ineligible for reimbursement, however, this document does not contain a final, exhaustive list of all budget, cost and scope items which may be ineligible for reimbursement by the MSBA. Nor is it intended to be a final determination of which budget, cost and scope items may be eligible for reimbursement by the MSBA. All project budget, cost and scope items shall be subject to review and audit by the Authority, and the Authority shall determine, in its sole discretion whether any such budget, cost and scope items are eligible for reimbursement. The MSBA may determine that certain additional budget, cost and scope items are ineligible for reimbursement.

\*\*NOTE: Pursuant to Section 3.20 of the Project Funding Agreement and the applicable policies and guidelines of the Authority, any project costs associated with the reallocation or transfer of funds from either the Owner's contingency or the Construction contingency to other budget line items shall be subject to review by the Authority to determine whether any such costs are eligible for reimbursement by the Authority.



# Question 5

Paul Kalous

[Appli](#)



MSBA Systems

**Home**

- Region 02
  - Dracut
    - Dracut Senior High
      - 200800790505
  - Leicester
    - Leicester High
      - Marlborough
        - Francis J Kane
          - 20110170008G
            - Marlborough High
              - 201101700505G
  - Region 03
    - Melrose
      - Melrose High
        - 201101780505G
          - 201201780505
      - Swampscott
        - Hadley
          - 201102910010
    - Region 05
      - Southeastern Reg Voc Tech
        - Southeastern Reg Voc Tech
          - 200908720605
        - Tri County
          - Tri County Reg Voc Tech
            - 201008780605G
              - 201208780605
              - 201408780605
        - Region 06
          - East Bridgewater
            - East Bridgewater High
              - 200900830505

Project Details	Contract Details	Budget Details	Payment Requests	Prior Requests	Audit Details	Finance	Audit Adjustments
<b>Budget</b>		Projected Monthly Cash Flow	Submit Budget	Scope Exclusions	Budget Revisions		
District Name	East Bridgewater		School Name	East Bridgewater High School			
MSBA ID	200900830505		Budget Phase	PFA Bid			
Procurement Type	Design/Bid/Build		Total Project Budget	\$77,012,539			
Project Type	Core Program		Board Approved Final TFG Date				
Project Scope	New Construction - Model School		Estimated Max Total Facilities Grant (95% Amt)	\$40,338,354(\$38,321,436)			
FSA Effective Date	8/27/2010		Maximum Total Facilities Grant	\$42,123,179			
PFA Effective Date	5/6/2011		Total MSBA Payment Amount (to Date)	\$38,301,128			
PFA Bid Date	5/11/2012		Percent of Total Facilities Grant Paid (to Date)	94.95%			
Reimbursement Rate	64.94%		Project Phase	Building Complete			

Budget Status: **The PFA Bid budget has been reviewed.**

Submitted By : Patricia Lugo  
Submitted Date : 5/21/2012

[Expand All](#)

[Export Budget to Excel](#)

Classification	Classification Code	Total Project Budget	Scope Exclusions	Budget Revisions	Basis for Total Facilities Grant	Submitted Amount (to Date)	Percent Submitted	Eligible Project Cost	Percent of Eligible Project Cost
<b>Totals</b>		<b>\$77,012,539</b>	<b>\$14,393,905</b>	<b>\$0</b>	<b>\$62,618,634</b>	<b>\$76,458,462</b>	<b>99%</b>	<b>\$61,255,353</b>	<b>97.82%</b>
Feasibility Study Agreement	0000-0000	\$761,649	\$102,858	\$33,941	\$692,732	\$823,785	108%	\$590,807	85.28%
OPM - Feasibility Study	0001-0000	\$203,000	\$0	\$0	\$203,000	\$186,603	92%	\$186,603	91.92%
A&E - Feasibility Study	0002-0000	\$295,913	\$492	\$33,941	\$329,362	\$363,795	123%	\$329,362	100.00%
Environmental & Site	0003-0000	\$262,736	\$102,366	\$0	\$160,370	\$271,462	103%	\$74,842	46.66%
Other	0004-0000	\$0	\$0	\$0	\$0	\$1,925	0%	\$0	0.00%
Administration	0100-0000	\$2,041,000	\$50,000	\$0	\$1,991,000	\$1,881,375	92%	\$1,796,764	90.24%
Architecture & Engineering	0200-0000	\$2,979,883	\$310,673	\$201,957	\$2,871,167	\$3,076,724	103%	\$2,671,734	93.05%
Site Acquisition	0300-0000	\$0	\$0	\$0	\$0	\$0	0%	\$0	0.00%
Construction Contract	0500-0000	\$68,123,406	\$13,580,374	\$0	\$54,543,032	\$67,651,731	99%	\$53,817,036	98.66%
Miscellaneous Project Costs	0600-0000	\$275,000	\$100,000	\$0	\$175,000	\$196,733	72%	\$99,012	56.57%
Furnishing & Equipment	0700-0000	\$2,530,000	\$250,000	\$0	\$2,280,000	\$2,718,759	107%	\$2,280,000	100.00%
Owner's Contingency	0800-0000	\$301,601	\$0	(\$235,898)	\$65,703	\$109,355	36%	\$0	0.00%

Full Unrestricted



# Question 5

## Community Outreach

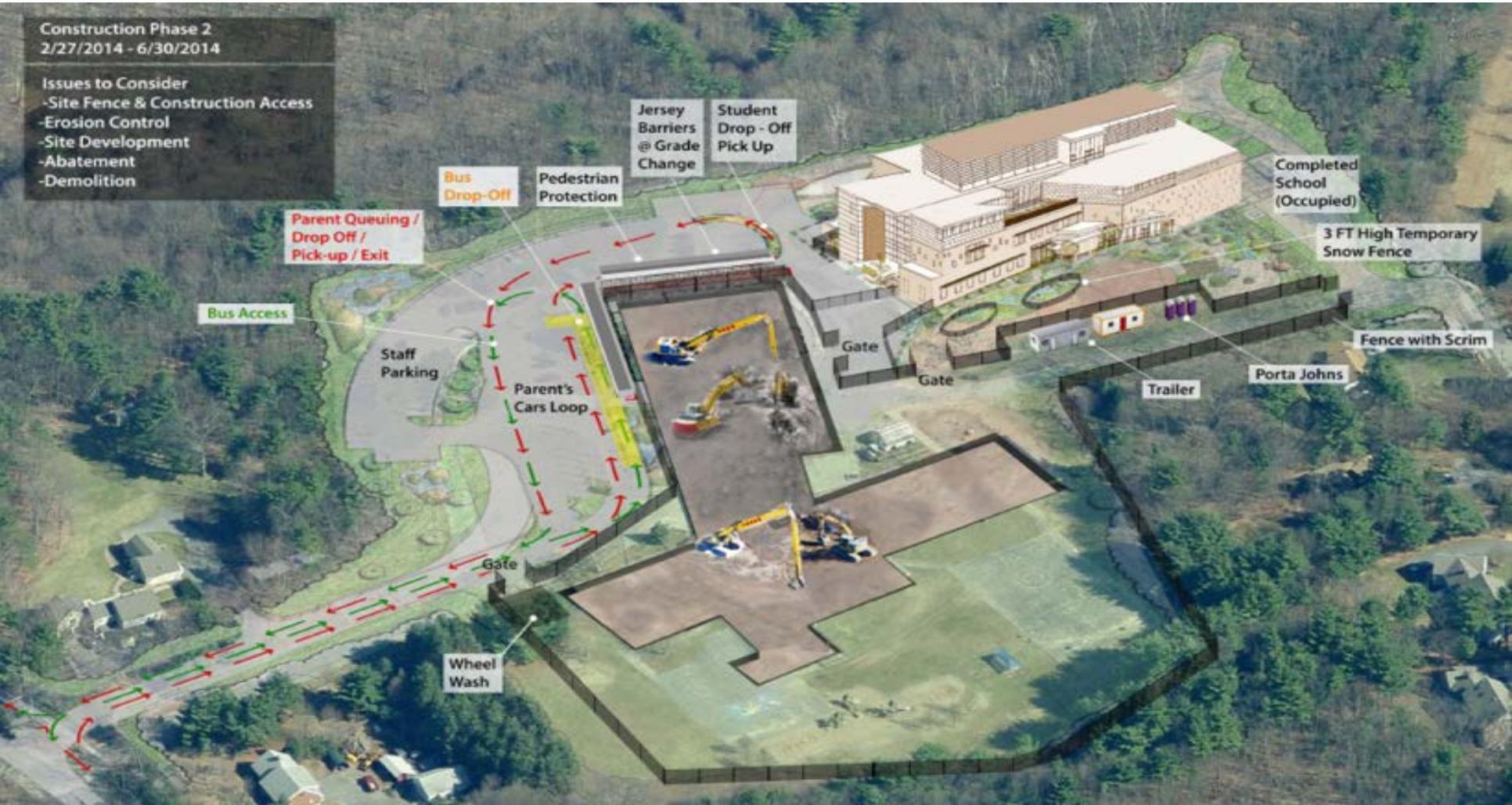


Public Forums



Website / Facebook

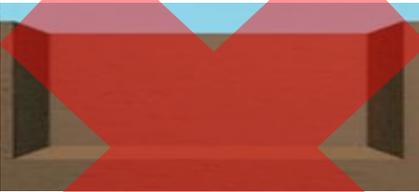
# Question 5



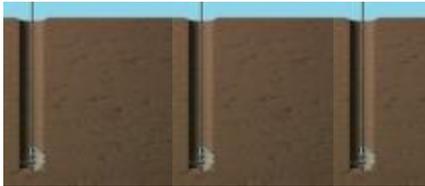
# Question 5



Foundation cross section



Traditional over-excavation foundation system



Alternative pile system



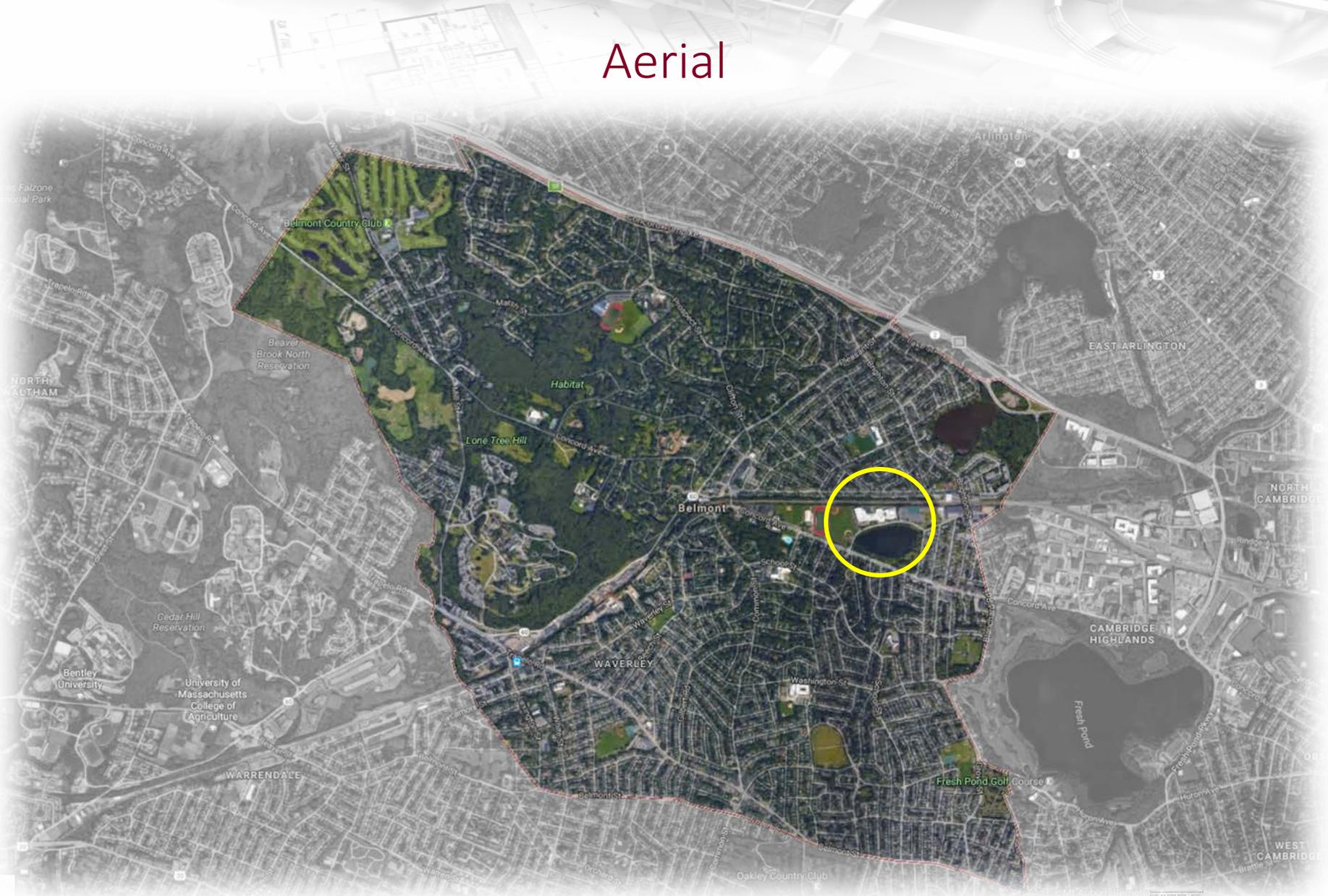
Piles with structural slab on grade

**\$377,000**  
**Savings**

# QUESTION & ANSWER



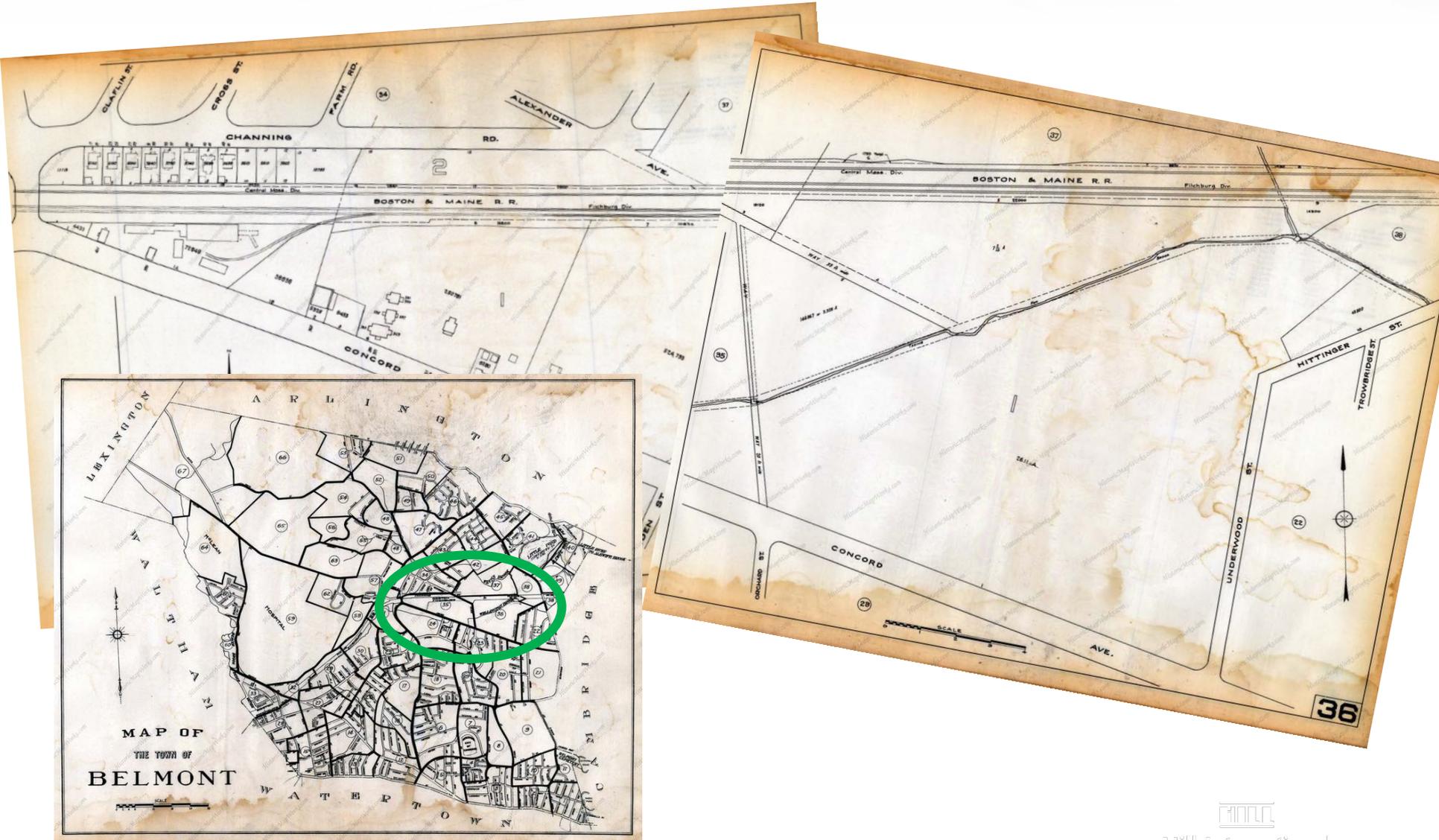
# Aerial



# Aerial



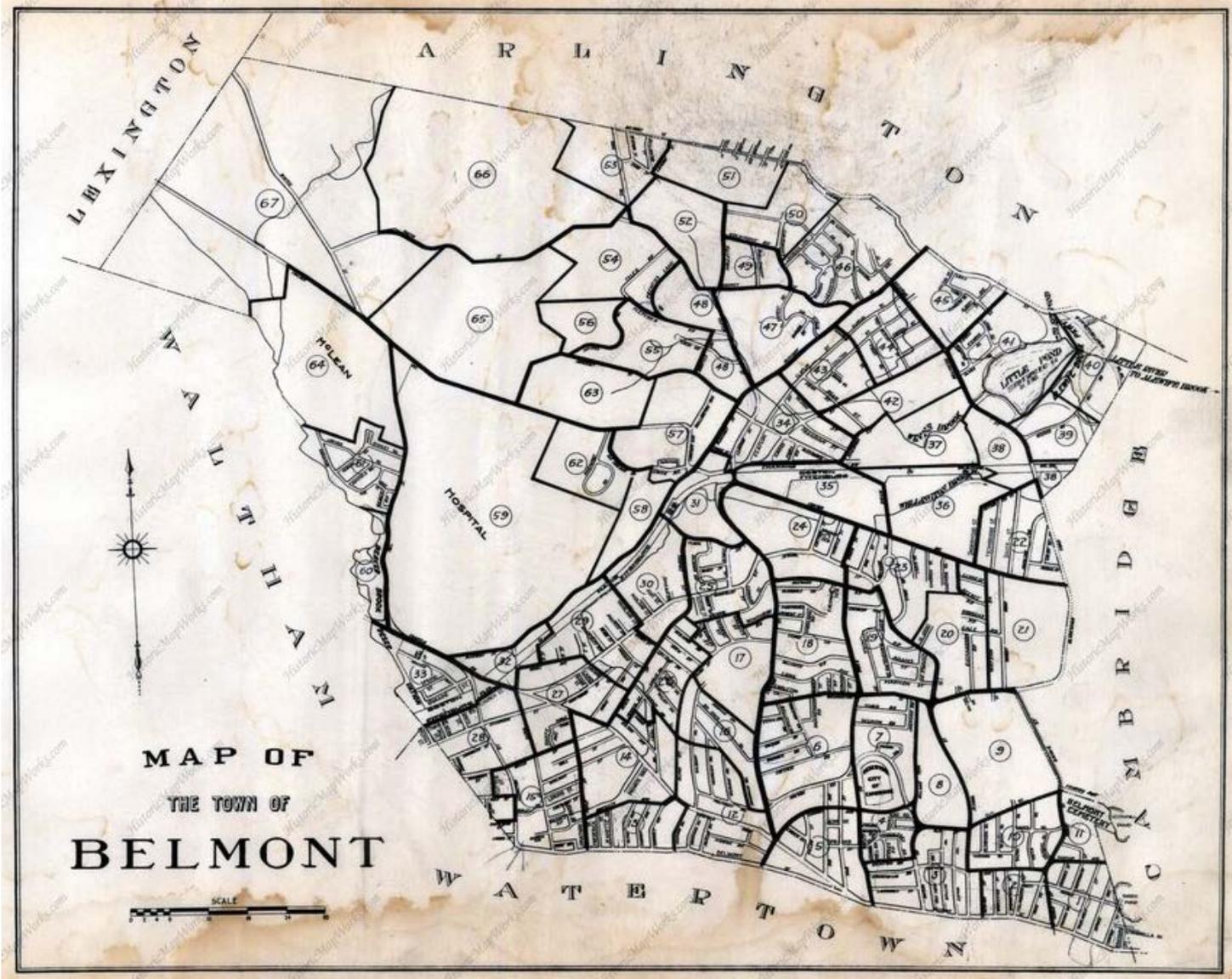
# Belmont Assessor 1931



# 1898 Atlas



# Map of Belmont 1933



# Site Logistics



# Chapter 149/149A Comparison

## Chapter 149

Contractor selects you through their low-bid

Traditional delivery system

Lowest price on bid day

Tight documents are essential

Variation from bid day plan often results in exposure to cost and time claims

General Contractor at risk for all costs and all the profit

Low initial cost that will rise due to change orders



## Chapter 149A

Contractor selection is a qualifications based process – you select the CM

CM input is received before bidding

Allows flexibility to fast track project

Contract is open book and costs are audited

Variation is managed through contingencies to reduce cost and time claims

Profit and fee is stipulated and limited

Higher initial cost, but change order costs managed better within initial cost

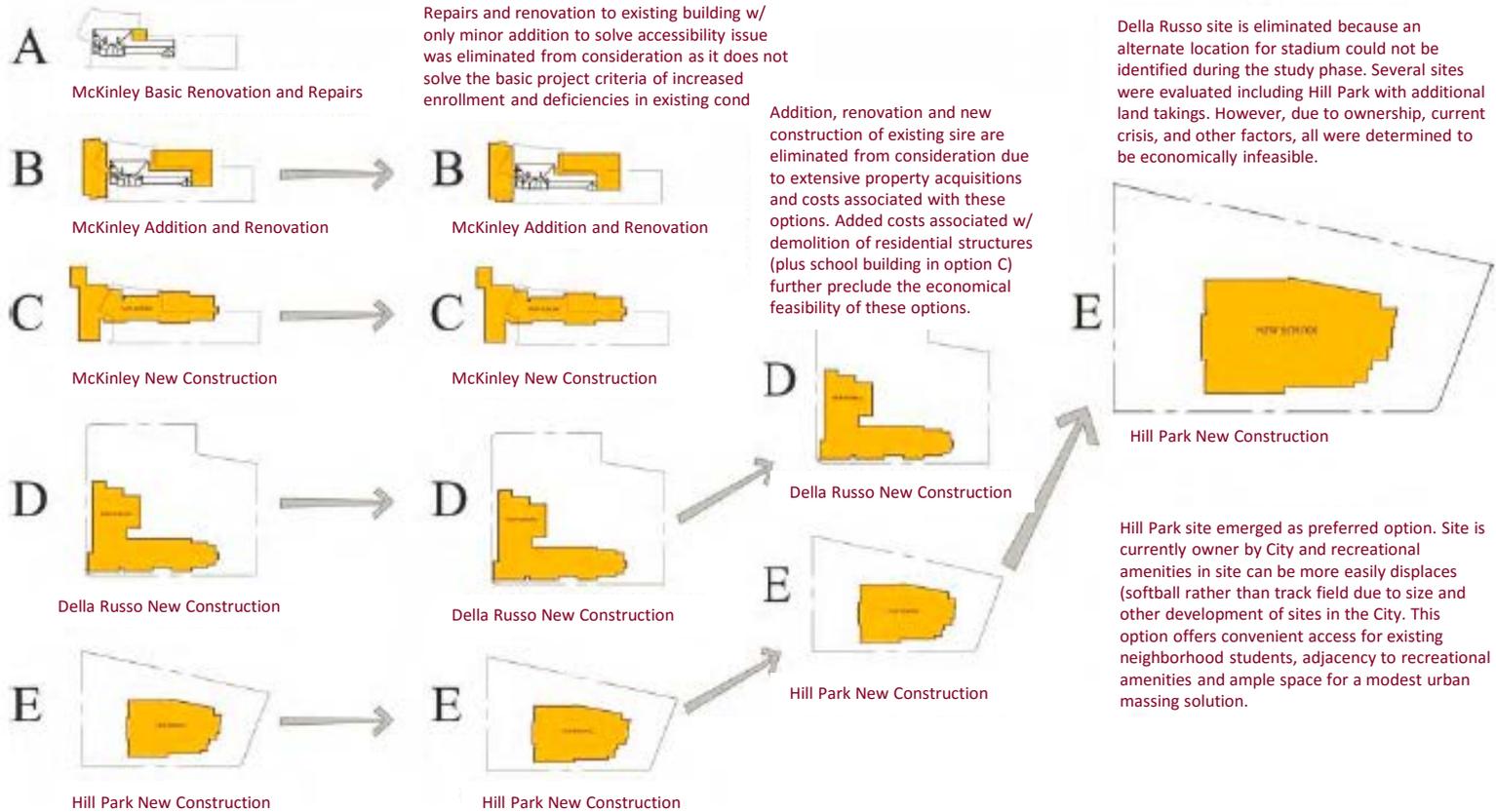


HILL

Hill International

# Site Evaluation

This diagram shows the sequence of decision-making in getting to the preferred option.



# Sustainability and Quality Assurance



# Management Philosophy



To deliver project successfully, we will:

- ✓ Adhere to Belmont Program
- ✓ Help Ensure compliance to all MSBA requirements
- ✓ Control budget
- ✓ Control schedule
- ✓ High Quality Standards
- ✓ Keep the stakeholders/community informed and aware
- ✓ Maintain a safety-focused implementation

# Belmont High School



# Belmont High School



# Belmont High School



# Belmont High School



# Belmont High School

