Massachusetts School Building Authority

CAPITAL PLANNING PROJECT OVERVIEW REPORT

September 7, 2016

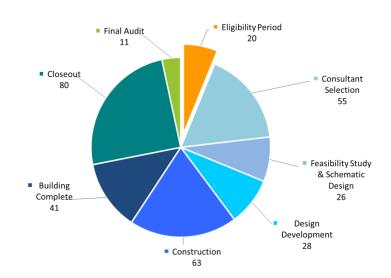
TABLE OF CONTENTS

Capital Pipeline Overview				
Statements of	f Interest (SOIs)	5		
Core Program	l	6-15		
	Eligibility Period	6		
	Consultant Selection	7-8		
	Feasibility Study	9		
	Schematic Design	10		
	Commissioning	11		
	Design Development	12		
	Summary of Bid Data	13		
	Construction	13-14		
Accelerated R	epair Program	16-20		
Project Variar	nces	21		
Appendix				
	(A) Project Status List			
	(B) 2016 and 2017 Estimated Bid Dates			
	(C) Construction Status Report			
	(D) Construction Delivery Method Report			

CAPITAL PIPELINE OVERVIEW

Current Projects Status

A total of 326 projects that have received invitations from the Board of Directors ("Board") to collaborate with the Massachusetts School Building Authority ("MSBA") are currently in the MSBA's Eligibility Period and Capital Pipeline. The summary chart provides the number of projects in Eligibility Period and each phase of the Capital Pipeline. For a detailed look at the Capital Pipeline projects, please go to www.massschoolbuildings.org/building and select "Capital Pipeline Status Chart".



Capital Planning Updates:

Staff are continuing their efforts to 1) complete the review of the MSBA's incentive points for Construction Manager at Risk Methodology, 2) finalize potential revisions to MSBA policy that would allow auditorium and gymnasium spaces above MSBA guidelines, which may be requested by districts to support community use at the district's sole expense, 3) prepare a recommendation to remove previously approved model schools from the Model School Program, and 4) commence a review of the MSBA's sustainability policies in relation to the 9th building code and review the incentive points for Energy Efficiency/Green School Program.

Review of the MSBA's incentive points for Construction Manager at Risk Methodology

Earlier this year, staff presented a review of projects that were authorized for a project funding agreement between April 2008 and July 2014, which compared the number of projects utilizing the Design-Bid-Build method and the Construction Manager at Risk Methodology and compared the project costs of both methods at bid and at final audit. This information was presented at the March 16, 2016 Board of Directors meeting, April 20, 2016 Facilities Assessment Subcommittee meeting, and the May 25, 2016 Board of Directors meeting and since then has been finalized in a report dated June 3, 2016 included as Attachment D. Based on this review and the utilization rate of the Construction Manager at Risk methodology, staff are preparing a recommendation for the November 9, 2016 Board of Directors meeting to remove the incentive points for use of the Construction Manager at Risk methodology.

Review of potential revisions to MSBA policy to allow auditorium and gymnasium spaces above MSBA guidelines at district's sole expense

The Board of Directors requested that staff review potential revisions to the MSBA policy that would allow districts to request auditorium and gymnasium spaces above MSBA guidelines to support community use at the district's sole expense. Staff presented an outline of a potential revised policy at the April 20, 2016 Facilities Assessment Subcommittee meeting. Based on positive feedback from the Facilities Assessment Subcommittee, staff are preparing a recommendation for the November 9, 2016 Board of Directors meeting to consider implementing the proposed change for districts that are invited into the grant process on or after January 1, 2017.

Recommendation to remove previously approved model schools from the Model School Program

At the July 20, 2016 Board of Directors meeting, the Board approved 12 schools to be included in the MSBA's Model School program. Included within the Request for Qualifications to update the designs for the Model School Program, the MSBA recognized that existing designs, in the Model School Program, would be removed from the list of pre-qualified designs within a 12 month period commencing upon final approval of the updated list. Given that the 9th building code is anticipated to be effective soon, staff anticipate preparing a recommendation to remove the older school designs at the November 9, 2016 Board of Directors meeting.

Review of the MSBA's sustainability policies in relation to the 9th building code and review of the incentive points for Energy Efficiency/Green School Program

Staff will be reviewing the MSBA's sustainability program to establish updated MSBA base level criteria for compliance with energy efficiency and sustainability criteria. This review is underway and staff anticipate a potential recommendation at the February 2017 Board of Directors meeting. Upon completion of this review, staff will further consider the current requirements associated with Green Schools Incentive Points and the impact to the incentive points of the higher levels that will be included as part of the 9th building code.

2016 Progress Report

- Statement of Interest ("SOI") 2016
 - Recommendations for SOIs filed by February 12, 2016 have been completed as of the July 20, 2016 Board Meeting.
 - The deadline to file SOIs for consideration in the Core Program closed on April 8, 2016. Staff submitted recommendations for Senior Study Visits at the August 24, 2016 Facilities Assessment Subcommittee meeting and Senior Study Visits are scheduled to commence at the end of September 2016.

Eligibility Period

- There are 20 districts in Eligibility Period, with three anticipating invitation to Feasibility Study at the September Board Meeting.
- o Feasibility Study/Schematic Design
- o Three districts received MSBA approval for selection of an Owner's Project Manager ("OPM").
- o Five districts have completed Designer Selection.

ARP

 Districts that were invited into the 2016 Accelerated Repair Program are completing their preliminary requirements and receiving consultant assignments. Staff anticipate that these districts will receive recommendations for project funding agreements commencing in November 2016, with the majority of recommendations in 2017.

• Construction Costs – Core Program

- Of the 14 bids and/or executions of a Guaranteed Maximum Price ("GMP") in 2016, five have been reported to date.
- o Of the 14 bids and/or executions of a GMP, all five bids were within the estimated budget.

Substantial Completion

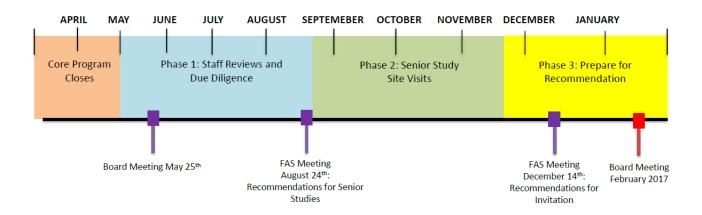
- Thirteen projects are projecting substantial completion in 2016.
- Eleven of the 13 projects reached substantial completion.
- o Ten projects are projected to complete substantial completion in 2017.

STATEMENTS OF INTEREST (SOIs)

2016 SOI Process

The 2016 SOI submittal period opened on January 8, 2016. The deadline to file SOIs for consideration in the ARP, which is primarily for the repair and/or replacement of roofs, windows/doors, and/or boilers in an otherwise structurally sound facility, closed on Friday, February 12, 2016. Staff issued recommendations for invitation and/or no further review at the May 25, 2016 Board Meeting and completed the recommendations for the 2016 ARP SOIs at the July 20, 2016 Board Meeting.

The deadline for consideration in the Core Program, which is primarily for projects beyond the scope of ARP, including extensive repairs, renovations, addition/renovations, and new school construction, closed on Friday, April 8, 2016. Staff submitted recommendations for Senior Study Visits at the August 24, 2016 Facilities Assessment Subcommittee ("FAS") meeting. Staff are in the process of scheduling the Senior Study Site Visits. Staff anticipate completing Senior Study Site Visits in late November 2016, with recommendations for invitation at the December 14th, 2016 FAS meeting.



CORE PROGRAM

ELIGIBILITY PERIOD

There are 20 districts remaining in Eligibility Period, and 11 projects have secured funding.

An agreed-upon enrollment between the district and the MSBA is one of the preliminary requirements that a district must complete prior to the district being eligible to receive an invitation from the MSBA Board to the Feasibility Study phase. The district must submit to the MSBA enrollment information and related documentation using MSBA's on-line enrollment projection system.

			30 days	60 days	90 c	lays	180	days	270 days	Date of
District	School	Date of Invitation to Eligibility Period	ICC	SBC	Online Enrollment Projection Info	Ed Profile Questionnaire	Maintenance Documents	Enrollment Certification	Local Authorization	Invitation to Feasibility Study (Estimated)
Belmont	Belmont HS	1/27/2016	Х	Х	Х	Х	Х		Х	Nov-16
Ludlow	Chapin Street ES	1/27/2016	Х	Х	Х	Х	Х	Х		Nov-16
Manchester Essex RSD	Memorial ES	1/27/2016	Х	Х	Х	Х	Х	Х	Х	Sep 28th
Danvers	Ivan G. Smith ES	3/30/2016	Х	Х	Х	Х			Х	Nov-16
Dennis- Yarmouth RSD	Mattacheese MS	3/30/2016	Х	Х	Х	Х			Х	Nov-16
Foxborough	Mabelle M. Burrell ES	3/30/2016	Х	Х	Х	Х			Х	Feb-17
Marblehead	Elbridge Gerry ES	3/30/2016	Х	Х	Х	Х	Х		Х	Sep-16
Northbridge	W. Edward Balmer ES	3/30/2016	Х	Х	Х	Х			Х	Feb-17
Shrewsbury	Beal Early Childhood Center	3/30/2016	Х	Х	Х	Х				Nov-16
Wareham	Minot Forest ES	3/30/2016	Х	Х	Х	Х			Х	Feb-17
Arlington	Arlington HS	5/25/2016	Х	Х						Feb-17
Framingham	Fuller MS	5/25/2016	Х	Х	Х	Х	Х		Х	Feb-17
Natick	JFK MS	5/25/2016	Х	Х	Х	Х	Х		Х	Sep-16
Pentucket RSD	Pentucket Regional HS	5/25/2016	Х	Х						Feb-17
Tewksbury	Louise Davy Trahan ES	5/25/2016	Х	Х					Х	Nov-16
Weymouth	Maria Weston Chapman MS	5/25/2016	Х	Х	х					Nov-16
Amesbury	Amesbury ES	7/20/16	Х							TBD
Central Berkshire	Wahconah Regional HS	7/20/16	Х							TBD
Springfield	Brightwood ES	7/20/16	Х	Х			Х			TBD
West Springfield	Colburn ES	7/20/16	Х							TBD

CONSULTANT SELECTION

OPM Selection

After the district has completed all Eligibility Period requirements and has received a Board Invitation to Feasibility Study, the district procures an Owner's Project Manager ("OPM"). Since the last report, one district has completed their OPM selection (shaded in the table below). Currently, there are six districts in the Capital Pipeline that are in the process of procuring an OPM.

District	School	Anticipated Selection
Blue Hills RSD*	Blue Hills RTHS	Completed July 2016
Clarksburg	Clarksburg ES	Completed July 2016
Triton RSD*	Pine Grove ES	Completed August 2016
Fall River	BMC Durfee HS	September 2016
Harvard	Harvard ES	September 2016
Tisbury	Tisbury ES	September 2016
Marlborough	Richer ES	October 2016
Holyoke	Lt. Elmer J. McMahon ES	TBD

^{*} Staff have been considering opportunities for providing a more streamlined process for districts that are extending the useful life of existing school facilities that are capable of continuing to support delivery of the educational program. As part of this, staff are working with two districts considering a major repair of their facility to understand what effect, if any, overlapping eligibility period requirements with consultant selection will have on the overall schedule. Staff will be considering modifications to the feasibility study and schematic design requirements to better align the MSBA required submittals with the scope of the project. Staff are also considering the potential of consolidating the board authorizations through the use of staff updates and presentations at Facilities Assessment Subcommittees.

Designer Selection

After a district has selected and executed a contract with an OPM, the district selects a Designer utilizing either a local designer selection process for projects under \$5 million or the MSBA's Designer Selection Panel ("DSP") for projects over \$5 million. Since the last report, five districts have completed their Designer selection (shaded in the table below). There are currently four districts in the Capital Pipeline that are in the process of procuring a Designer.

District	School	Anticipated Selection
Lowell	Lowell HS	July 2016
Taunton	Mulcahey ES	July 2016
Middleborough	Middleborough HS	July 2016
Worcester	South High Community School	July 2016
Everett	Keverian School	August 2016
Bristol County	Bristol County Agricultural HS	September 2016
Clarksburg	Clarksburg Elementary	September 2016
Lexington	Maria Hastings	September 2016
Triton	Pine Grove	September 2016

For additional information on the selected consultant teams, see Appendix A.

FEASIBILITY STUDY

Once a district has procured an OPM and Designer, the district and the district's consultants must complete two Feasibility Study submittals, the Preliminary Design Program and the Preferred Schematic Report, prior to Board consideration to proceed into Schematic Design. Based on the most recent data and schedules provided to the MSBA by districts, the MSBA anticipates that eight districts will present their preferred schematic designs to the Board at the upcoming September, November and February Board Meetings.

District	School	Anticipated PS Board Date
Millis	Clyde F. Brown ES	September 28, 2016
Lynn	Pickering MS	November 9,2016
Westport	Westport MS	November 9, 2016
Waltham	Waltham HS	November 9, 2016
Braintree	East MS	February 2017
Blue Hills	Blue Hills Regional Technical HS	February 2017
Saugus	Saugus HS	February 2017
Cape Cod Regional Vocational Technical	Cape Cod Regional Technical HS	February 2017
Ipswich	Winthrop ES	May 2017
Middleborough	Middleborough HS	TBD
Easthampton	Maple ES	TBD

SCHEMATIC DESIGN

Prior to consideration by the Board for Project Scope and Budget Agreement authorization, a district must submit a Schematic Design to the MSBA for review. Based on the most recent data and schedules provided to the MSBA by districts, the MSBA anticipates that six districts will appear before the Board for Project Scope and Budget Agreement authorization at the upcoming September, November and February Board Meetings.

District	School	Anticipated PS&B Board Date
Amherst	Wildwood ES	September 28, 2016
Boston	Josiah Quincy Upper School	November 9, 2016
Bourne	Peebles ES	November 9, 2016
Newton	Cabot ES	November 9, 2016
Millis	Clyde F. Brown ES	February 15, 2017
Somerville	Somerville HS	February 15, 2017

COMMISSIONING

The MSBA assigns a Commissioning Consultant after a district has secured local funding for the Board approved project. Since the last report, the MSBA has assigned Commissioning Consultants to one additional project presented in the table below.

District	School	Program	Estimated Const. Cost (million)	Commissioning Consultant	Contract Amount
Peabody	Veterans Memorial HS Roof	2015 ARP	\$2.43	Thompson & Lichtner	\$50,500

To date, the MSBA has executed 369 Commissioning Consultant contracts, totaling \$26.5 million. To date, 229 contracts have been completed.

The table below represents the status of commissioning assignments sorted by the fiscal year in which the commissioning work orders were issued.

Fiscal Year	No. Work Orders Issued	Value of Work Orders Issued	Total Invoiced	Percent Complete
FY10	31	\$4,231,376	\$4,273,277	100%
FY11	95	\$6,132,890	\$6,058,396.53	99%
FY12	52	\$4,450,761	\$4,370,299.39	98%
FY13	55	\$3,364,697	\$3,264,392.77	97%
FY14	47	\$2,604,062	\$2,126,023.60	82%
FY15	44	\$2,277,711	\$1,216,762.88	53%
FY16	44	\$3,435,637	\$520,562.70	15%
FY17	1	\$50,500	\$0	0%

DESIGN DEVELOPMENT

After a district has secured local funding and has entered into a Project Funding Agreement ("PFA") with the MSBA, the district enters into the Design Development Phase. Currently, there are 31 projects in the Design Development Phase with a total estimated construction cost of approximately \$629.4 million. Of those 31 projects, 21 are ARP projects and 10 are Core Program Projects. The 10 Core Program Projects in Design Development have a total estimated construction cost of approximately \$570.5 million and are listed below.

Elementary School Districts	Middle School Districts	High School Districts	Other Grade Configurations
Carver (PK-5)	Beverly (5-8)	Billerica (9-12)	
Dedham (PK-K)		Mount Greylock RSD (9-12)	
Granby (K-6)		Stoughton (9-12)	
Hopkinton (PK-1)			
Narragansett RSD (PK-5)			
Woburn (K-5)			

District Design Submittals

During Design Development, districts submit three design submittals (Design Development, 60% Construction Documents, and 90% Construction Documents) for MSBA review. MSBA staff review documents to ensure the project is still in compliance with the PFA. The chart below indicates the number of reviews by type and by fiscal year.

Fiscal Year	DD Reviews	60% Reviews	90% Reviews	Total Reviews
2010	5	0	0	5
2011	21	24	20	65
2012	12	24	28	64
2013	20	20	19	59
2014	15	13	14	42
2015	6	12	13	31
2016	10	10	8	28
2017	2	3	2	7
Totals	89	103	102	294

SUMMARY OF BID DATA

Based on the most recent data and schedules provided by the districts, the MSBA anticipates 14 projects will bid in 2016, and three projects will bid in 2017.

Year	Number of Projects	Design Basis for Enrollment	Project Budget	Construction Budget
2016	14	8,150	\$811.75 M	\$665.06 M
2017	3	2,875	\$332.64 M	\$264.13 M
Totals	17	11,025	\$1.14 B	\$0.93 B

Note: These numbers are based on preliminary information received from the District and are subject to further review and calculation.

Anticipated Bids in 2016:

September- Carver (DBB), Pittsfield (CMR)

For additional information on each of these projects, see Appendix B.

CONSTRUCTION

When a district issues a Notice to Proceed, the project is advanced to the Construction Phase. Currently, there are 60 projects in the Construction Phase with a total estimated construction cost of \$1.06 billion. Of those 60 projects, 43 are ARP projects, one is a waitlist project, and 17 are Core Program Projects. This does not include the 41 projects that have reached substantial completion and are currently in the Building Complete Phase. The 17 Core Program Projects have a total estimated construction cost of \$1.01 billion and are listed below.

Elementary School Districts	Middle and Middle/High School Districts	High School Districts	Other Grade Configurations
Gloucester (K-5)	Middle School Districts	North Middlesex RSD (9-12)	Abington (PK; 5-12)
New Bedford (PK-5)	Chelsea (5-8)	Pittsfield (9-12)	Haverhill (K-8)
Westfield* (K-5)	Scituate (6-8)	Plymouth (9-12)	Holbrook (PK-12)
	Westborough (7-8)	Provincetown (9-12)	Worcester (PK-6)
		Winchester (9-12)	Brookline (PK-8)
	Middle/High School Districts		
	Boston - <i>Dearborn MS</i> (6-12)		

^{*}Note: Westfield, Abner Gibbs Elementary School, stopped construction in December of 2012 due to a preliminary injunction based upon project site status as Article 97 "Protected Land".

Amendment to the Project Funding Agreement (PFA)

Upon receipt of construction bids or the execution of a GMP, a district submits the Contractor's Schedule of Values to the MSBA. MSBA staff and the district collaborate to reconcile the actual construction costs against the estimated construction budget and an amendment to the PFA is executed to reflect bid costs. The chart, shown below, is the number of amendments to PFA's, listed by fiscal year.

Fiscal Year	Total Amendments
FY2012	30
FY2013	31
FY2014	31
FY2015	17
FY2016	22
FY2017*	1

^{*}Executed PFA Amendments as of August 31st, 2016

Substantial Completion

Thirteen projects are scheduled to achieve substantial completion in 2016. To date, eleven projects (shaded below) have achieved substantial completion.

Project	Enrollment	Contractor	ОРМ	Designer	Est. Substantial Completion Date	Actual Substantial Completion Date	Est. Actual Difference (days)
Newton Angier	465	W.T. Rich	Joslin, Lesser + Associates Inc.	DiNisco Design Partnership	18-Dec-15	5-Jan-16	-18
Wachusett Mountview MS	800	CTA Construction, Inc.	Gary Kaczmarek	Lamoureux Pagano & Assoc. Inc.	19-Apr-16	11-Apr-16	8
Lynn Thurgood Marshall MS	1100	Walsh Bros.	Joslin, Lesser + Associates Inc.	Raymond 6-Jun-16		20-Apr-16	47
Peabody J. Henry Higgins MS	1340	Bacon- Agostini Construction (JV)	Daedalus	DiNisco	27-May-16	8/5/16	-9
Athol- Royalston RSD Riverbend ES	545	Fontaine Brothers	SMMA	Mount Vernon Group	14-Jun-16	13-Jun-16	1
Lunenburg Jr. HS	820	Shawmut Design	Joslin, Lesser + Associates Inc.	Tappe Associates	30-Jun-16	24-May-16	37
Winthrop Jr/Sr HS	970	Gilbane	Skanska	HMFH	30-Jun-16	6/30/16	0
Gloucester West Parish ES	355	W.T. Rich	KBA	Dore & Whittier	15-Jul-16	7/15/16	0
Milford Woodland ES	985	Shawmut Design	Joslin, Lesser + Associates Inc.	HMFH	28-Jul-16	7/20/16	0
New Bedford Taylor at Sea Lab	284	M. O'Connor	ACG	Mount Vernon Group	29-Jul-16	8/31/16	-33
Northborough Lincoln Street ES	270	Brait Bros.	Collier	Lamoureux Pagano & Assoc. Inc.	1-Sep-16	8/31/16	1
Provincetown Provincetown HS	118	E. Amanti & Sons and Capeway Roofing Systems	Atlantic Construction and Management	Raymond Design	31-Oct-16	TBD	0
Haverhill Caleb Hunking MS	1005	Shawmut Design	Joslin, Lesser + Associates Inc.	JCJ Architecture	30-Dec-16	TBD	0

For additional information on the construction status for each of these projects, see Appendix C.

ACCELERATED REPAIR PROGRAM

Currently, there are a total of 99 districts, representing 220 projects, either active or completed in ARP. All new information that has been updated since the last report is italicized.

Repair Program	Number of Districts	Number of Projects	Total Project Budgets	Maximum Facility Grants	Number of Projects Final Audit Approved
2016 Accelerated	28	49	-	-	0
2015 Accelerated	24	43*	\$136,680,652	\$91,974,052	0
2014 Accelerated	34	47	\$108,410,084	\$65,388,035	2
2013 Accelerated	25	45	\$94,650,790	\$54,662,711	24
2012 Accelerated	24	36	\$63,009,653	\$38,267,952	32
Green	93	189	\$366,649,226	\$222,889,218	181

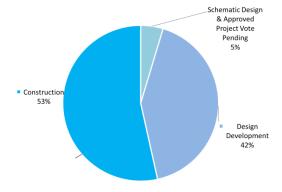
^{*}Totals reflect projects approved for Project Funding Agreements as of the May 25, 2016 Board of Directors' Meeting.

2016 Accelerated Repair Program

- Invitations 28 districts, representing 49 projects
 - Scope includes 22 roofs, 16 windows/doors, and 13 boilers

2015 Accelerated Repair Program

- Invitations 24 districts, representing 44 projects
 - Scope includes 22 roofs, 26 windows/doors, and nine boilers
- SOI Removal one project
- Approved for Project Funding Agreements 24 districts, representing 43 projects
- Total Project Budgets \$136,680,652
- MSBA Total Facilities Grants \$91,974,052
- 11 of 13 projects reporting to bid within estimated budgets

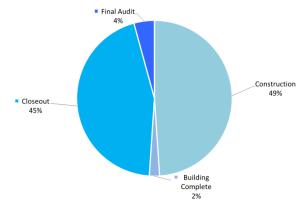


2015 ARP Status Chart

2014 Accelerated Repair Program

- Invitations 36 districts, representing 51 projects
- SOI Removal two districts, representing four projects
- Current 2014 ARP projects 34 districts, representing 47 projects
 - Scope includes 20 roofs, 25 windows/doors, and 13 boilers

- Approved for Project Funding Agreements 34 districts, representing 47 projects
- Total Project Budgets \$108,410,084
- MSBA Total Facilities Grants \$65,388,035
- Four districts, representing six projects, required schedule extensions following PFA approval
- 85% of reporting projects bid within estimated budget



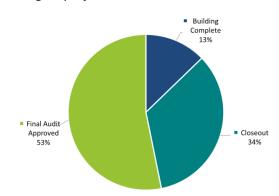
2014 ARP Status Chart

2013 Accelerated Repair Program

- Invitations 28 districts, representing 50 projects
- SOI Removals four districts, representing five projects
- Approved for Project Funding Agreements 26 districts, representing 47 projects
- Active Projects 25 districts, representing 45 projects
 - Scope includes 30 roofs, 13 windows/doors, and seven boilers
- Total Project Budgets \$94,650,790
- MSBA Total Facilities Grants \$54,662,711
- Four districts, representing seven projects, required schedule extensions following PFA approval
- 82% of projects bid within estimated budget
- 53% of projects have completed Final Audit

2012 Accelerated Repair Program

- Invitations 27 districts, representing 39 projects
- SOI Removals three districts, representing three projects
- Approved Project Funding Agreements 24 districts, representing 36 projects
- Scope includes 21 roofs, 11 windows/doors, and seven boilers
- Total Project Budgets \$63,009,653
- MSBA Total Facilities Grants \$38,267,952
- Five districts, representing nine projects, required schedule extensions following PFA approval
- 86% of projects bid within estimated budget
- 89% of projects have completed Final Audit



2013 ARP Status Chart

Closeout

■ Final Audit Approved

2012 ARP Status Chart

Status of Green Repair Program

The Green Repair Program resulted in PFA authorizations totaling \$366,649,226 in Total Project Costs and \$222,889,218 in MSBA grants.

Of the 189 projects, 181 have been approved for final grant payments. The eight projects that were not previously approved for final grant payments are substantially complete and require Final Audit.

2015 Accelerated Repair Projects - Construction Estimate vs. 2016-2017

- 37 of 43 projects are scheduled to be bid by August 2016.
- Staff reported previously on the shaded projects below.
- Staff added seven new projects to the chart below.

- 21 of 23 reported projects bid within the estimated budget.
- Additional 12 will be bid by end of September for November board

Total \$53,140,069 \$41,110,832 \$12,028,637 - \$7,937,075

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District	School	Scope	Project Type	Bid Date	Construction Estimate **	Bid Amount **	Variance from Construction Estimate	Reimbursement Rate	Potential Grant Variance *
Leicester	Leicester HS	Roof	DBB	Feb-16	\$2,097,427	\$1,237,000	\$860,427	59.21%	\$509,459
Worcester	School Francis I McGrath		DBB	Mar-16	\$3,470,847	\$2,972,000	\$498,847	78.95%	\$393,840
Worcester	Francis J McGrath ES	Windows/Doors	DBB	Mar-16	\$1,211,628	\$941,640	\$269,988	78.95%	\$213,156
Worcester Jacob Hiatt Magnet		Windows/Doors	DBB	Mar-16	\$1,647,516	\$1,300,360	\$347,156	78.95%	\$274,080
Worcester	Flagg Street	Windows/Doors	DBB	Mar-16	\$3,327,388	\$2,242,000	\$1,085,388	78.95%	\$856,914
New Bedford	Alfred J. Gomes School	Windows/ Doors	DBB	Mar-16	\$3,794,672	\$2,718,100	\$1,076,572	80.00%	\$856,736
Blackstone Valley RSD	Blackstone Valley School	Roof – Partial	DBB	Mar-16	\$892,764	\$717,000	\$175,764	53.53%	\$94,086
New Bedford	Casmir Pulaski School	Windows/ Doors / Boiler	DBB	April-16	\$2,274,474	\$1,926,000	\$348,474	79.58%	\$277,316
New Bedford	Hayden/ McFadden School	Windows/ Doors / Boiler	DBB	April-16	\$4,636,946	\$4,202,028	\$434,918	79.58%	\$346,108
New Bedford	Sgt. Williams H. Carney Academy	Windows/ Doors / Boiler	DBB	April-16	\$4,078,525	\$4,208,704	-\$130,179	79.58%	-\$103,596
Deerfield	Deerfield ES	Roof	DBB	April-16	\$2,341,276	\$1,589,000	\$752,276	52.06%	\$391,635
Cambridge	Kennedy- Longfellow School	Roof	DBB	April-16	\$2,804,463	\$1,137,000	\$1,667,463	47.03%	\$784,208
Ludlow	East Street ES	Roof / Partial Boiler	DBB	April-16	\$2,566,953	\$1,792,829	\$774,124	58.37%	\$451,856
North Reading	E. Ethel Little School	Roof-Partial	DBB	April-16	\$1,414,932	\$1,290,000	\$124,932	46.58%	\$58,193
Cambridge	Fletcher/Maynard Academy	Boiler	DBB	April-16	\$600,661	\$624,737	-\$24,076	47.03%	\$0
West Bridgewater	Spring Street School	Roof	DBB	April-16	\$1,107,449	\$638,000	\$469,449	52.69%	\$247,353
Quincy	Merrymount	Roof	DBB	May-16	\$1,472,686	\$1,078,975	\$393,711	68.96%	\$271,503
Chicopee	Belcher	Roof	DBB	May-16	\$724,660	\$452,185	\$272,475	78.95%	\$215,119
Chicopee	Fairview Middle	Roof	DBB	May-16	\$2,403,119	\$1,318,815	\$1,084,304	78.95%	\$856,085
Middleborough	Memorial ECC	Roof-Partial	DBB	Jun-16	\$891,117	\$640,000	\$251,117	56.26%	\$141,278
Revere	Garfield ES	Roof	DBB	Jul-16	\$6,527,919	\$6,124,000	\$403,319	77.47%	\$312,916
Fairhaven	Hastings Middle	Roof-Partial	DBB	Jul-16	\$633,861	\$481,300	\$152,561	54.79%	\$83,588
Springfield	Mary M Walsh	Windows/Doors	DBB	Aug-16	\$2,218,786	\$1,479,159	\$739,627	54.79%	\$405,242

2014 Accelerated Repair Projects - Construction Estimate vs. 2015-2016 Bid Amount

- Staff reported previously on the shaded projects below.
- Staff added two new projects to the chart below. All projects are now reflected.
- 85% of the 47 reported projects bid within the estimated budget.

				Total	\$86,959,301	300,433,333	320,403,346	-	\$14,376,404
District	School	Scope	Project Type	Bid Date	Construction Estimate **	Bid Amount **	Variance from Construction Estimate	Reimbursement Rate	Potential Grant Variance *
Quincy	Francis W. Parker ES	Windows/Doors	DBB	Jan-15	\$1,077,920	\$987,000	\$90,920	71.16%	\$64,699
	Lincoln-Hancock	Windows/Doors	DBB					71.16%	\$424,194
Quincy	Community School	·	DBB	Jan-15	\$2,075,113	\$1,479,000	\$596,113	71.10%	\$424,194
Sudbury	General Nixon ES	Partial Roof/ Partial Windows/Doors	DBB	Feb-15	\$915,204	\$817,466	\$97,738	36.89%	\$36,056
Lynn	William P. Connery ES	Roof	DBB	Feb-15	\$859,532	\$604,000	\$255,532	78.95%	\$201,743
Lynn	E. J. Harrington ES	Roof	DBB	Feb-15	\$1,505,681	\$1,217,700	\$287,981	78.95%	\$227,361
Worcester	Goddard School of Science and Technology	Windows/Doors	DBB	Feb-15	\$4,634,609	\$3,053,000	\$1,581,609	78.95%	\$1,248,680
Worcester	West Tatnuck School	Windows/Doors	DBB	Feb-15	\$1,997,979	\$1,162,019	\$835,960	78.95%	\$659,990
Worcester	Clark Street Community School	Windows/Doors	DBB	Feb-15	\$2,095,791	\$1,465,163	\$630,628	78.95%	\$497,881
Worcester	Union Hill School	Windows/Doors	DBB	Feb-15	\$2,096,895	\$1,618,818	\$478,077	78.95%	\$377,442
Dartmouth	George H. Potter ES	Roof	DBB	Feb-15	\$1,548,538	\$1,283,000	\$265,538	51.84%	\$137,655
Medway	John D. McGovern ES	Windows/Doors	DBB	Feb-15	\$894,675	\$561,886	\$332,789	50.16%	\$166,927
Norwood	Cornelius M. Callahan		000					E0 E00/	¢67.454
	ES	Boiler Roof,	DBB	Mar-15	\$356,939	\$224,171	\$132,768	50.58%	\$67,154
Greenfield	Green River School	Windows/Doors	DBB	Mar-15	\$1,739,286	\$1,005,890	\$733,396 	77.47%	\$568,162
Springfield	Kensington International School	Windows/Doors	DBB	Mar-15	\$779,500	\$832,500	-\$53,000	80.00%	\$0
Wellesley	Wellesley MS	Windows/Doors	DBB	Mar-15	\$3,827,871	\$2,752,500	\$1,075,371	31.00%	\$333,365
Tyngsborough	Tyngsborough HS	Roof, Boiler	DBB	Mar-15	\$3,282,118	\$1,964,300	\$1,317,818	52.89%	\$696,994
Middleton	Fuller Meadow ES	Partial Roof	DBB	Apr-15	\$1,257,849	\$906,800	\$351,049	46.37%	\$162,781
Northampton	Leeds ES	Partial Roof	DBB	Apr-15	\$540,900	\$401,550	\$139,350	56.26%	\$78,398
Northampton	R. K. Finn Ryan Road School	Partial Roof	DBB	Apr-15	\$851,639	\$501,520	\$350,119	56.26%	\$196,977
North Attleborough	Roosevelt Avenue ES	Boiler	DBB	Apr-15	\$303,623	\$265,667	\$37,956	53.53%	\$20,318
Southern Berkshire RSD	Mount Everett RHS	Roof, Boiler	DBB	Apr-15	\$6,376,974	\$4,806,662	\$1,570,312	39.21%	\$615,719
Leominster	Northwest ES	Roof	DBB	May-15	\$2,693,028	\$1,805,000	\$888,028	71.96%	\$639,025
Tri-County RSD	Tri-County RVTHS	Boiler	DBB	Jun-15	\$729,259	\$494,131	\$235,128	51.42%	\$120,903
Auburn	Auburn MS	Roof, Partial Boiler	DBB	Jun-15	\$1,757,394	\$1,371,393	\$386,001	54.16%	\$209,058
Auburn	Bryn Mawr ES	Roof	DBB	Jun-15	\$671,935	\$578,000	\$93,935	54.16%	\$50,875
South Shore VT RSD	South Shore VTRHS	Boiler	DBB	Aug-15	\$519,808	\$354,200	\$165,608	54.16%	\$89,693
Stoughton	Joseph H Gibbons ES	Roof Window/Door	DBB	Sep-15	\$2,740,109	\$1,914,220	\$825,889	\$54.16	\$447,301
Gardner	Elm Street School	Boiler	DBB	Sep-15	\$3,509,176	\$2,599,000	\$910,176	\$78.95	\$718,584
Brockton	Brookfield ES	Window/Door Roof	DBB	Oct-15	\$3,167,788	\$1,838,297	\$1,329,491	78.95%	\$1,049,633
Orleans	Orleans ES	Partial	DBB	Oct-15	\$872,628	\$969,480	-\$96,852	36.68%	\$1,049,033
		Window/Door							
Randolph	J.F. Kennedy ES	Windows/Doors	DBB	Nov-15	\$2,079,590	\$2,031,583	\$48,007	74.74%	\$35,880
Brockton	Gilmore School	Roof / Boiler	DBB	Nov-15	\$2,296,063	\$1,375,989	\$920,074	78.95%	\$726,398
Brockton	Barrett Russell School Ashfield MS	Partial Window Roof / Boiler	DBB	Nov-15	\$1,626,472	\$1,144,000	\$482,472	78.95%	\$380,912
Brockton Randolph	Randolph HS	Partial	DBB DBB	Nov-15	\$2,928,855 \$4,461,242	\$2,061,132	\$867,723	78.95% 74.74%	\$685,067
Springfield	J.F. Kennedy MS	Window/Door Windows/Doors	DBB	Nov-15	\$2,229,800	\$3,732,000	-\$1,502,200	80.00%	\$0
Franklin	Franklin County Tech	Windows/Doors	DBB	Nov-15	\$1,711,460	\$1,656,723	\$54,737	73.89%	\$40,445
County	HS Claypit Hill School	Windows/Doors	DBB	Doc 15				25 429/	¢0
Wayland	Herbert Clark Hoover	,		Dec-15	\$1,299,997	\$1,355,000	-\$55,003	35.42%	\$0
Melrose Gill-	ES	Windows/Doors	DBB	Dec-15	\$1,090,827	\$734,000	\$356,827	51.42%	\$183,480
Montague RSD	Sheffield ES	Partial Window/Doors	DBB	Dec-15	\$865,075	\$925,425	-\$60,350	76.00%	\$0
Falmouth	Lawrence School	Windows/Doors	DBB	Jan-16	\$3,412,965	\$2,782,835	\$630,130	37.95%	\$239,134
Hudson	Mulready ES	Partial Roof	DBB	Feb-16	\$1,143,284	\$944,300	\$198,984	54.16%	\$107,770
Bellingham	South ES	Roof	DBB	Feb-16	\$984,816	\$588,400	\$396,416	52.69%	\$208,872
Peabody	John E. McCarthy Memorial School	Roof / Window/ Doors	DBB	Feb-16	\$4,112,571	\$3,874,725	\$237,846	54.79%	\$130,316
Medfield	Ralph Wheelock School	Boiler	DBB	April-16	\$374,400	\$347,270	\$27,130	39.84%	\$10,928
Holyoke	Morgan Elementary School	Boiler	DBB	Jul-16	\$315,850	\$324,305	-\$8,455	80.00%	\$0

District	School	Scope	Project Type	Bid Date	Construction Estimate **	Bid Amount **	Variance from Construction Estimate	Reimbursement Rate	Potential Grant Variance *
Holyoke	E N White Elementary School	Boiler	DBB	Jul-16	\$346,273	\$353,318	-\$7,045	80.00%	\$0

^{*}These numbers are based on preliminary information received from the district and are subject to further review and calculation.

Accelerated Repair Projects – Schedule Extension Update

The MSBA has granted districts conditional extensions to their PFAs pending compliance with the following stipulations:

- The district must submit a detailed, revised, construction timeline that explains how the work will be completed at each school; and
- Any costs that are related to a district requesting an extension to the construction schedule will be the sole responsibility of the district and those costs are categorically ineligible for reimbursement by the MSBA.

Schedule delays for these districts can be attributed to local funding issues, lead time for windows, and construction delays on site. In no event have the extended schedules resulted in an increase to the Estimated Maximum Total Facilities Grant as authorized by the Board.

Six of the 47, 2014 Accelerated Repair Projects did not meet their anticipated construction completion dates in 2015. These projects have revised construction schedules and are scheduled to be completed in 2016. Staff has reported previously on the six shaded projects listed below. No new activity.

District	School	Scope	Original Construction Completion Date	Updated Construction Completion Date	Reason for Schedule Extension
Orleans	Orleans ES	Partial Window/Door	8/25/2015	8/29/2016	The District and its consultants have determined that the estimated lead time for windows requires construction to be scheduled for 2016.
Springfield	John F. Kennedy MS	Window/Door 12/22/2015 10/28/2016		10/28/2016	The District and its consultants have determined that the estimated lead time for windows requires construction to be scheduled for 2016.
Brockton	Ashfield MS	Roof/Boiler	8/31/2015	7/11/2016	The District and its consultants have determined that the bidding for construction in 2016 would better serve the project budget and existing facilities.
Brockton	Gilmore School	Roof/Boiler	8/31/2015	7/11/2016	The District and its consultants have determined that the bidding for construction in 2016 would better serve the project budget and existing facilities.
Medfield	Ralph Wheelock School	Boiler	1/6/2016	8/31/2016	The District and its consultants have determined that the bidding for construction in 2016 would better serve the project budget and existing facility.
Springfield	Kensington International School	Window/Door	11/2/15	8/19/16	The District and its consultants have determined that the estimated lead time for windows requires construction to be scheduled for 2016.

^{**}The construction estimate and bid amount do not include pre-construction services and alternatives.

1 of the 43, 2015 Accelerated Repair projects did not meet their construction completion dates in 2016. This project revised its construction schedule and is scheduled to be completed in 2017.

District	School	Scope	Original Construction Completion Date	Updated Construction Completion Date	Reason for Schedule Extension
Quincy	Beechwood Knoll Elementary	Roof Windows/Doors	8/23/2016	8/28/2017	The District and its consultants have determined that bidding for construction in 2017 would better serve the project budget and existing facilities.

PROJECT VARIANCES

Core Program - Total Project Budget Update

Upon receiving the Board's approval of the Project Scope and Budget, the MSBA and participating districts enter into a Project Funding Agreement, which establishes the Total Project Budget and the Estimated Maximum Total Facilities Grant for an approved project. Staff has reported on budget increases for the 15 projects shaded below at previous Board Meetings. In no event has the increase in budget resulted in an increase to the Estimated Maximum Total Facilities Grant as authorized by the Board.

Since the last report, Winchester High School has received their PFA Bid Amendment.

				Funding ement	PFA Bid Am Final A		
District	School	Scope	Total Project Budget	Total Maximum Facilities Grant	Total Project Budget	Total Maximum Facilities Grant	Reason for Increase to Total Project Budget
Andover	Bancroft ES	New	\$44,659,837	\$16,773,753	\$50,374,837	\$16,575,965	The District has appropriated additional funds to cover the costs associated with increased construction costs and additional contingencies for litigation/settlement costs and other ineligible costs.
Burlington	Marshall Simonds MS	Add/ Reno	\$32,865,272	\$17,143,365	\$34,221,929	\$15,362,127	The District appropriated at its May 2012 annual town meeting through Articles 18: 19, additional funds for the costs associated with the construction of the new field complex and field lighting replacement.
Essex North Shore Agricultural & Technical School	Essex North Shore Agricultural &	New	\$125,000,000	\$77,500,000	\$133,770,000	\$77,500,000	The Board was informed at the March 30, 2011 meeting that the Total Project Budget had increased due to additional ineligible scope that would be funded by DCAM.
District	Technical HS		\$125,000,000	\$77,500,000	\$134,501,368	\$77,500,000	The District has appropriated additional funds to cover the costs associated with increased construction costs for horse tack barn renovations.
Lexington	Joseph Estabrook ES	New	\$40,792,248	\$12,250,739	\$43,392,248	\$12,148,491	The District has executed a GMP that exceeds the Construction Budget of the PFA. The District has appropriated additional funds to cover the costs associated with increased construction costs and additional contingencies.
North Reading	North Reading MS/HS	Add/ Reno	\$107,727,074	\$49,323,123	\$123,227,074	\$49,323,123	This is a CMR project. The estimated, reconciled construction costs tracked over budget at DD (59,746,655 over), 60% (54,655,965 over), and 90% (\$15,136,846 over). A Town override vote in March 2013 obtained an additional \$15,500,000 in local funding to proceed.
Revere	Staff Sergeant James J. Hill ES	New	\$45,402,396	\$29,551,048	45,402,396	\$29,551,048	At Project Scope and Budget, the Total Project Budget was approved at \$44,382,396. The City of Revere has increased the land acquisition budget. Therefore, the projected total project budget at PFA has increased to \$45,402,396. Note that the MSBA grant has not changed since the Project Scope and Budget Agreement.
Somerville	East Somerville Community School	Add/ Reno	\$33,185,258	\$15,237,996	\$38,006,621	\$15,237,996	At the March 28, 2012 Board Meeting, the Board approved an amendment to the PFA and a \$6.25M District loan.
Uxbridge	Uxbridge HS	New	\$43,000,000	\$22,362,328	\$44,986,479	\$22,362,328	The District has appropriated additional funds to cover the costs associated with the construction of athletic fields originally included in the PFA but which were not included in the bid as the District's construction contract would have exceeded the budget.
Norfolk County Agricultural	Norfolk County Agricultural HS	Add/ Reno	\$28,552,385	\$15,369,712	\$30,589,078	\$13,867,050	The District has executed a Tender Agreement and Completion Agreement Contract, increasing its Total Project Budget, following the termination of its original construction contract.

Northborough	Lincoln Street ES	Add/ Reno	\$25,530,553	\$10,407,408	\$25,530,553	\$10,407,408	The MSBA Board Approved Total Project Budget increased by \$60,400 from \$25,470,153 to \$25,530,553 due to the addition of an alternate, for a new ball field added at the District's request.
Sutton	Sutton MS	Add/ Reno	\$59,945,474	\$29,843,511	\$60,130,536	\$26,528,921	The District has executed a Tender Agreement and Completion Agreement Contract, increasing its Total Project Budget, following the termination of its original construction contract.
Weston	Field ES	New	\$31,504,146	\$8,310,510	\$32,654,146	\$8,105,549	District-approved Construction Change Orders exceeded available contingency amount.
Winchester	Winchester HS	Add/ Reno	\$129,923,146	\$44,493,270	\$131,513,741	\$43,100,458	The MSBA Board Approved total Project Budget increased due to a construction change order for additional soil abatements at Skillings Field. Note that the increased Total Project Budget will not increase the Maximum Total Facilities Grant.
Winthrop	Winthrop MS/HS	New	\$81,818,740	\$42,582,841	\$81,432,986	\$41,249,005	The MSBA Board Approved Total Project Budget increased due to revised FEMA flood plain requirements which necessitated the elevation of the new building to be raised. Note that the increased Total Project Budget will not increase the Maximum Total Facilities Grant.
Woburn**	Wyman-Hurld ES	New	\$33,705,396	\$14,387,427	TBD*	TBD*	The District had completed a project review with its Conservation Commission and an Order of conditions was issued on June 12, 2015. A neighborhood group has appealed this Order and it is now under review by DEP. The District has experienced delays in completing its City Council vote for its appropriation and incurred additional costs.

^{*}PFA Bid Amendment has not been developed to calculate a revised Total Facilities Grant amount. The Total Maximum Facilities Grant will not exceed the Board authorized amount in the PFA but, upon review, may decrease.

^{**}Pending an executed Project Funding Agreement.

APPENDIX A PROJECT STATUS LIST



Date of Report: 9/7/2016 Total Projects: 326

MSBA ID	District	School	Project Phase	Project Type	Project Scope	Procurement Type	ОРМ	Designer	CM\GC	Commissioning Consultant
							Knight, Bagge & Andersor			Horizon Engineering
200800010405	Abington	Frolio Middle School	Construction	Core Program	New Construction	DBB	Inc.	Ai3 Architects LLC	Brait Builders Corp.	Associates, LLP
201600050303	Agawam	Agawam Middle School	OPM Selection	Accelerated Repair	Boiler		-	-	-	-
201500070005	Amesbury	Amesbury Elementary	Eligibility Period				- NV/5 (flor looks looks looks	-	-	-
201300080050	Amherst	Wildwood Elementary	Schematic Design	Core Program	New Construction		NV5 (fka Joslin, Lesser + Associates Inc.) Dore & Whittier	JCJ Architecture, PC	-	-
200800090003	Andover	Bancroft Elementary School	Closeout	Core Program	New Construction	CM@R	Management Partners, Inc.	Symmes Maini & McKee Associates, Inc.	Skanska USA Building, Inc.	Sebesta Blomberg & Associates, Inc.
201500100505	Arlington	Arlington High	Eligibility Period	Core Program			-	-	-	-
		Assabet Valley Regional	,							Symmes, Maini &
200908010605	Assabet Valley	Technical High School	Closeout	Core Program	Repair	DBB	Colliers International Symmes Maini & McKee	Perkins Eastman/DPC Mount Vernon Group	CTA Construction Co., Inc	McKee Associates
200906150020	Athol-Royalston	Riverbend School	Building Complete	Core Program	New Construction	DBB	Associates	Architects, Inc.	Fontaine Brothers, Inc.	Colliers International
201400160505	Attleboro	Attleboro High	Feasibility Study	Core Program			Skanska USA Building, Inc	Kaestle Boos Associates, Inc.	-	-
200800170305	Auburn	Auburn Middle	Closeout	Coro Brogram	New Construction	CM@R	Skanska USA Building,	Lamoureux Pagano & Associates, Inc.	Fontaine Brothers, Inc.	WSP USA
200800170305	Aubum	Aubum Middle	Closeout	Core Program	New Construction	CIVIER	Inc	Associates, Inc.	Fontaine Brothers, Inc.	Horizon Engineering
201400170305	Auburn	Auburn Middle	Closeout	Accelerated Repair	Roof, Boiler		Skanska USA Building, Inc	Dietz & Company Architects, Inc.	-	Associates, LLP Thompson & Lichtner Co., Inc.
201400170010	Auburn	Bryn Mawr	Closeout	Accelerated Repair	Roof		Skanska USA Building, Inc	Dietz & Company Architects, Inc.	-	Thompson & Lichtner Co., Inc.
201600170015	Auburn	Pakachoag	OPM Selection	Accelerated Repair	Roof		-	-	-	-
200806160505	Ayer-Shirley	Ayer-Shirley Regional Middle/High School	Building Complete	Core Program	Addition / Renovation	CM@R	Dore and Whittier Architects, Inc.	Symmes Maini & McKee Associates, Inc.	Consigli Construction Company, Inc.	WSP USA
201400250020	Bellingham	South Elem	Construction	Accelerated Repair	Roof		Atlantic Construction and Management, Inc.	-	Silktown Roofing	Building Enclosure Associates, LLC
201500260505	Belmont	Belmont High	Eligibility Period	Core Program			-	-	-	-
		Tahanto Regional High	3 - 1,				PMA Construction			
200806200505	Berlin-Boylston	School	Closeout	Core Program	New Construction	DBB	Services	HMFH Architects, Inc.	CTA Construction Co., Inc	
201300300305	Beverly	Briscoe Middle	Design Development	t Core Program	New Construction	CM@R	HEERY	Ai3 Architects LLC	Bacon-Agostini Construction Joint Venture	Bard, Rao + Athanas Consulting Engineers, LLC
201300310505	Billerica	Billerica Memorial High School	Design Development	t Core Program	New Construction		Leftfield, LLC	Perkins+Will	-	RDK Engineers
004500050005	Blackstone Valley	DI 1	0:		D (Watermark	Russo Barr Associates,	0:11.	0 1 1
201508050605	Reg	Blackstone Valley	Construction	Accelerated Repair	Roof		Environmental, Inc.	Inc. DiMarinisi & Wolfe	Silktown Roofing	Gale Associates, Inc.
201206220505	Blackstone-Millville	Blackstone Millville RHS	Closeout	Accelerated Repair	Roof	DBB	Arcadis U.S., Inc.	Architects Urban Designers	-	Gale Associates, Inc.
201306220010	Blackstone-Millville	Millville Elem	Closeout	Accelerated Repair	Roof	DBB	Pinck & Co., Inc.	CBI Consulting Inc.	MDM Engineering	Simpson Gumpertz & Heger Inc.
201508060605	Blue Hills Voc	Blue Hills Reg Voc Tech	Feasibility Study	Core Program	Addition / Renovation		Dore & Whittier Management Partners, Inc.	_	_	_
-							PMA Construction			
201300350546	Boston	Boston Arts Academy	Feasibility Study	Core Program			Services	-	-	-
201600350560	Boston	Boston Latin	OPM Selection	Accelerated Repair	Boiler		-	-	-	-
201500350052	Boston	Charles Sumner	Design Development	Accelerated Repair	Windows / Doors		P3 Inc.	Dietz & Company Architects, Inc.	-	Simpson Gumpertz & Heger Inc.
201500350020	Boston	Curley K-8 School	Design Development	Accelerated Repair	Windows / Doors		P3 Inc.	Dietz & Company Architects, Inc.	-	Simpson Gumpertz & Heger Inc.
201500350072	Boston	David A Ellis	Design Development	Accelerated Repair	Windows / Doors		P3 Inc.	Dietz & Company Architects, Inc.	-	Simpson Gumpertz & Heger Inc.



201500350080	Boston	Donald Mckay	Design Development	Accelerated Repair	Windows / Doors		P3 Inc.	Dietz & Company Architects, Inc.	-	Simpson Gumpertz & Heger Inc.
201500350651	Boston	Dorchester Academy	Design Development	Accelerated Repair	Windows / Doors		P3 Inc.	Dietz & Company Architects, Inc.	-	Simpson Gumpertz & Heger Inc.
201500350415	Boston	Grover Cleveland	Design Development	Accelerated Repair	Windows / Doors		P3 Inc.	Dietz & Company Architects, Inc.	-	Simpson Gumpertz & Heger Inc.
201000350074	Boston	Henry Dearborn Middle School	Construction	Core Program	New Construction	CM@R	Daedalus Projects Inc	Jonathan Levi Architects LLC	Gilbane Building Company	Symmes, Maini & McKee Associates
201600350146	Boston	James Condon Elem	OPM Selection	Accelerated Repair	Boiler		-	-	-	-
201600350179	Boston	John W McCormack	OPM Selection	Accelerated Repair	Roof			-	-	-
201600350268	Boston	Paul A Dever	OPM Selection	Accelerated Repair	Roof		-	-	-	-
201000350565	Boston	Quincy Upper School	Feasibility Study	Core Program			Skanska USA Building, Inc	HMFH Architects, Inc.	-	-
201600350360	Boston	William Ellery Channing	OPM Selection	Accelerated Repair	Boiler		-	-	-	-
201500350380	Boston	Young Achievers	Design Development	Accelerated Repair	Windows / Doors		P3 Inc.	Dietz & Company Architects, Inc.	-	Simpson Gumpertz & Heger Inc.
201400360010	Bourne	James F Peebles Elem	Schematic Design	Core Program	New Construction		Symmes Maini & McKee Associates, Inc.	Flansburgh Associates, Inc.	-	-
201600380013	Boxford	Spofford Pond	OPM Selection	Accelerated Repair	Roof, Windows / Doors				-	-
201300400305	Braintree	East Middle School	Feasibility Study	Core Program			Hill International Company	/ Miller Dyer Spears Inc.	-	-
004000050000	Bridgewater-	Doide-water Middle C. L.	01	A I I D :	Df	DDD	Vertex Construction	<u> </u>		OBI O Itia - I
201206250320	Raynham Bridgewater-	Bridgewater Middle School Laliberte Elementary	Closeout	Accelerated Repair	Roof	DBB	Services Vertex Construction	- Raymond Design	-	CBI Consulting Inc.
201206250050	Raynham	School	Closeout	Accelerated Repair	Roof	DBB	Services	Associates, Inc.	-	CBI Consulting Inc.
201206250020	Bridgewater- Raynham	Merrill Elementary School	Closeout	Accelerated Repair		DBB	Vertex Construction Services	Raymond Design Associates, Inc.	-	CBI Consulting Inc.
201409100705	Bristol County Agr	Bristol County Agr High	Designer Selection	Core Program			Colliers International	-	-	-
201400440421	Brockton	Ashfield Middle School	Construction	Accelerated Repair	Roof, Boiler		Architectural Consulting Group, LLC	Tighe & Bond, Inc.	-	Rist-Frost-Shumway Engineering, P.C. Simpson Gumpertz & Heger Inc.
201400440080	Brockton	Barrett Russell School	Construction	Accelerated Repair	Windows / Doors		Architectural Consulting Group, LLC	Tighe & Bond, Inc.	Reliable Roofing and Sheet Metal, LLC	Simpson Gumpertz & Heger Inc.
201400440010	Brockton	Brookfield	Construction	Accelerated Repair			Architectural Consulting Group, LLC	Tighe & Bond, Inc.	-	Simpson Gumpertz & Heger Inc.
201400440035	Brockton	Gilmore	Construction	Accelerated Repair			Architectural Consulting Group, LLC	Tighe & Bond, Inc.	-	Rist-Frost-Shumway Engineering, P.C. Simpson Gumpertz & Heger Inc.
201100460015	Brookline	Edward Devotion	Construction	Core Program	Addition / Renovation	CM@R	-	HMFH Architects, Inc.	Shawmut Design and Construction	Consulting Engineering Services, LLC
							Skanska USA Building,	Tai Soo Kim Partners,	CAM HVAC &	Fitzemeyer & Tocci
201500490090	Cambridge	Fletcher/Maynard Academy	y Construction	Accelerated Repair	Boiler		Inc	LLC	Construction, Inc.	Associates, Inc.
201600490090	Cambridge	Fletcher/Maynard Academy	y OPM Selection	Accelerated Repair	Roof		- Skanska USA Building,	- Tai Soo Kim Partners,	- Greenwood Industries,	- Thompson & Lichtner
201500490040	Cambridge	Kennedy-Longfellow	Construction	Accelerated Repair	Roof		Inc Vertex Construction	LLC CSS Architects	Inc. Lockheed Window	Co., Inc. Simpson Gumpertz &
201200500012	Canton	Lt Peter M Hansen	Final Audit Approved		Windows / Doors	DBB	Services	Incorporated	Corporations	Heger Inc.
201600500012	Canton	Lt Peter M Hansen	OPM Selection	Accelerated Repair	Roof		-	-	-	- Cincon
201200500305	Canton	Wm H Galvin Middle	Final Audit Approved	Accelerated Repair	Windows / Doors	DBB	Vertex Construction Services	CSS Architects Incorporated	Lockheed Window Corporations	Simpson Gumpertz & Heger Inc.
201408150605	Cape Cod Region Voc Tech	Cape Cod Region Voc Tech	Feasibility Study	Core Program			Colliers International	Drummey Rosane Anderson, Inc.	-	-
201300520015	Carver	Carver Elementary School	Design Development	Core Program	New Construction		PMA Construction Services	HMFH Architects, Inc.	-	Symmes, Maini & McKee Associates
201600520405	Carver	Carver Middle/High School	Schematic Design	Accelerated Repair	Roof, Windows / Doors, Boiler		Leftfield, LLC	Johnson Roberts Associates, Inc.	-	-
201506350505	Central Berkshire	Wahconah Regional High	Eligibility Period				-	-	-	-



200800570050	Chelsea	Clark Avenue School	Construction	Core Program	New Construction	CM@R	Pinck & Co., Inc.	HMFH Architects, Inc.	W. T. Rich Company Inc.	Cannon Design
004500040040	Ohioono	Dalahan	0	A I t I D i -	Df		NV5 (fka Joslin, Lesser +	Kaestle Boos Associates,	ID Birri 8 Or Inc	Building Enclosure
201500610010	Chicopee	Belcher	Construction	Accelerated Repair			Associates Inc.)	Inc.	J.D. Rivet & Co., Inc.	Associates, LLC
201600610015	Chicopee	Bowe	OPM Selection	Accelerated Repair	Windows / Doors		-	- Caolo & Bieniek	-	Symmes, Maini &
200900610021	Chicopee	Chicopee Academy	Building Complete	Core Program	Renovation	DBB	Arcadis U.S., Inc.	Associates, Inc.	Fontaine Brothers, Inc.	McKee Associates
		, ,	3 - 1 - 1				NV5 (fka Joslin, Lesser +	Kaestle Boos Associates,		Building Enclosure
201500610310	Chicopee	Fairview Middle	Construction	Accelerated Repair	Roof		Associates Inc.)	Inc.	J.D. Rivet & Co., Inc.	Associates, LLC
201600610050	Chicopee	Selser	OPM Selection	Accelerated Repair	Roof		-	-	-	-
201400630010	Clarksburg	Clarksburg Elementary	Designer Selection	Core Program			-	-	-	-
000000400505	0	Concord-Carlisle Regional		O D	Name Operations	014@D	I/O / A i - 1 I	OMB Applitudes Inc	Turner Construction	Oalliana International
200906400505	Concord-Carlisle	High School	Closeout	Core Program	New Construction	CM@R	KV Associates, Inc.	OMR Architects, Inc.	Company	Colliers International
					Addition /		Construction Monitoring	DiNisco Design	Bacon Construction Co.	Turner Facilities
200800710505	Danvers	Danvers High School	Final Audit Approved	d Core Program	Renovation	DBB	Services, Inc.	Partnership, Limited	Inc.	Management Solutions
201500710032	Danvers	Ivan G Smith	Eligibility Period	Core Program			-	-	-	-
201600720050	Dartmouth	Dartmouth Middle	OPM Selection	Accelerated Repair	Roof		-	-	-	-
				· · · · · · · · · · · · · · · · · · ·				Russo Barr Associates,	Greenwood Industries,	
201400720030	Dartmouth	George H Potter	Final Audit Approved	d Accelerated Repair	Roof		Pinck & Co., Inc.	Inc.	Inc.	Gale Associates, Inc.
004000700005	D. alle a see	Facility Ob Halling and Occurren	Daries Davidson	1. O D	Name Operations	DDD	Construction Monitoring	Knight, Bagge &		Symmes, Maini &
201200730005	Dedham	Early Childhood Center	Design Developmen	it Core Program	New Construction	DBB	Services, Inc.	Anderson, Inc. Raymond Design	-	McKee Associates Russo Barr Associates,
201500740015	Deerfield	Deerfield Elem	Construction	Accelerated Repair	Roof		Pinck & Co., Inc.	Associates, Inc.	MDM Engineering	Inc.
201506450305	Dennis-Yarmouth	Mattacheese Middle Sch	Eligibility Period	7 to cororato a 1 topan	11001		-	-	-	-
201000-100000	Definite Turniouti	Wattacheese Wildele Con	Englosity F criod					Dietz & Company		
201306500305	Dighton-Rehoboth	Dighton Middle School	Final Audit Approved	d Accelerated Repair	Roof	DBB	Arcadis U.S., Inc.	Architects, Inc.	MDM Engineering	Gale Associates, Inc.
	-	-								
					New Construction -			DiNisco Design		Consulting Engineering
200800770010	Douglas	Douglas Elementary	Closeout	Core Program	Model School	DBB	HEERY	Partnership, Limited	CTA Construction Co., Inc	. Services, LLC
		Douglas Intermediate			Roof, Windows /			DiNisco Design		Consulting Engineering
200800770100G	Douglas	Elementary School	Closeout	Green Repair	Doors, Boiler	DBB	HEERY	Partnership, Limited	CTA Construction Co., Inc	
2000001101000	Douglad	Ziomoniary Concor	0.0000001	oroon ropan	Addition /			Mount Vernon Group	C 17 C COTTON GOTTON, INC	. 00111000, 220
200800790505	Dracut	Dracut Senior High School	Building Complete	Core Program	Renovation	DBB	Hill International Company	Architects, Inc.	CTA Construction Co., Inc	. RDK Engineers
					New Construction -			Mount Vernon Group	Dimeo Construction	
201000820505	Duxbury	Duxbury High School	Building Complete	Core Program	Model School	CM@R	KV Associates, Inc.	Architects, Inc.	Company	WSP USA
200900830505	East Bridgewater	East Bridgewater High School	Closeout	Coro Brogram	New Construction - Model School	DBB	Hill International Company	Ai2 Architecta II C	Fontaine Brothers, Inc.	Foreman Building Commissioning, LP
200900630303	East Blidgewater	301001	Closeout	Core Program	Model School	DBB	Hill International Company	Caolo & Bieniek	Fondine biothers, inc.	Commissioning, LP
201400860010	Easthampton	Maple	Feasibility Study	Core Program			Colliers International	Associates, Inc.	-	-
	· · · · · · · · · · · · · · · · · · ·						Skanska USA Building,	Baker/Wohl Architects,	Capeway Roofing	
201300880020	Easton	Moreau Hall	Final Audit Approved	d Accelerated Repair	Roof	DBB	Inc	Inc.	Systems, Inc.	Gale Associates, Inc.
200809130705	Econy Agr Took	Essex Agricultural and	Puilding Complete	Core Program	New Construction	CM@R	PMA Construction Services	Perkins Eastman/DPC	Gilbane Building	Turner Facilities
201400930028	Essex Agr Tech Everett	Technical High School George Keverian School	Building Complete Feasibility Study	Core Program	New Construction	CIVIER	-	-	Company	Management Solutions
201400930026	Everett	George Revenan School	reasibility Study	Cole Flograffi			-	<u> </u>	Capeway Roofing	•
201500940305	Fairhaven	Hastings Middle	Construction	Accelerated Repair	Roof		Potomac Capital Advisors	CGKV Architects, Inc.	Systems, Inc.	Gale Associates, Inc.
201400950505	Fall River	B M C Durfee High	OPM Selection	Core Program			-	-	-	-
				9.0			PMA Construction			
201400960405	Falmouth	Lawrence	Construction	Accelerated Repair	Windows / Doors		Services	Civitects PC	GVW, Inc.	Gale Associates, Inc.
201500990015	Foxborough	Mabelle M Burrell	Eligibility Period	Core Program			-	-	-	-
201501000305	Framingham	Fuller Middle	Eligibility Period				-	-	-	-
					New Construction -				Bacon-Agostini	Consulting Engineering
200901010505	Franklin	Franklin High School	Building Complete	Core Program	Model School	DBB	Daedalus Projects Inc	Ai3 Architects LLC	Construction Joint Venture	Services, LLC
201408180605	Franklin County	Franklin County Tech	Construction	Accelerated Repair	Windows / Doors		Colliers International	Habeeb & Associates Architects, Inc.	Gardner Construction & Industrial Services	CBI Consulting Inc.
201400100000	7 Idilikiii Oodiity	anam county room	Sonotraction	, loodiorated Repair	. 7 11 14 0 17 3 / 15 0 0 13		Comoro international	, or intooto, into.		Fitzemeyer & Tocci
										Associates, Inc.
					Windows / Doors,				Lockheed Window	Thompson & Lichtner
201401030001	Gardner	Elm Street School	Construction	Accelerated Repair	Boiler		Hill International Company	ICON architecture, inc.	Corporations	Co., Inc.



		Georgetown Middle/High					Municipal Building	Drummey Rosane		
200801050505	Georgetown	School	Building Complete	Core Program	Renovation	DBB	Consultants, Inc.	Anderson, Inc.	L.D. Russo, Inc.	WSP USA
200901050010	Georgetown	Penn Brook Elementary School	Building Complete	Core Program	New Construction	DBB	Municipal Building Consultants, Inc.	Drummey Rosane Anderson, Inc.	Brait Builders Corp.	Rist-Frost-Shumway Engineering, P.C.
200901030010	Georgetown	3011001	Building Complete	Cole Flogram	Windows / Doors,	DBB	NETCO Construction	Anderson, inc.	Gardner Construction &	Lingineening, F.O.
201406740050	Gill-Montague	Sheffield Elementary	Construction	Accelerated Repair	Boiler		Project Managers, Inc.	The S/L/A/M Collaborative		CBI Consulting Inc.
201601070505	Gloucester	Gloucester High	OPM Selection	Accelerated Repair	Roof		-	-	-	-
		West Parish Elementary		•			Knight, Bagge & Andersor	Dore & Whittier Architects,		Fitzemeyer & Tocci
200901070050	Gloucester	School	Building Complete	Core Program	New Construction	CM@R	Inc.	Inc.	W. T. Rich Company Inc.	
201201110010	Granby	West St	Design Development	Core Program	Addition / Renovation		Colliers International	Jones Whitsett Architects, Inc.	_	Rist-Frost-Shumway Engineering, P.C.
201201110010	Greater Lawrence	Gr Lawrence Reg Voc	Design Development	Cole Flogram	Renovation		Vertex Construction	Richard D. Kimball		Lingineening, F.O.
201108230605	RVT	Tech	Closeout	Core Program	Repair	DBB	Services	Company, Inc.	E. Amanti & Sons, Inc.	WSP USA
	Greater Lowell Voc	Greater Lowell Regional			Addition /		NV5 (fka Joslin, Lesser +	Knight, Bagge &	Consigli Construction	Horizon Engineering
200908280605	Tec	Technical High School Greater New Bedford	Building Complete	Core Program	Renovation	CM@R	Associates Inc.)	Anderson, Inc.	Company, Inc.	Associates, LLP
	Greater New	Vocational Technical High			Addition /		Construction Monitoring	Drummey Rosane	Agostini Construction Co.,	Symmes Maini &
201008250605	Bedford	School	Closeout	Core Program	Renovation	DBB	Services, Inc.	Anderson, Inc.	Inc.	McKee Associates
					Roof, Windows /					
201501140010	Greenfield	Federal	Design Development	Accelerated Repair	Doors, Boiler		-	- D-104/-b1 Abitt-	-	Colliers International
201401140030	Greenfield	Green River	Closeout	Accelerated Repair	Roof, Windows / Doors, Boiler		Arcadis U.S., Inc.	Baker/Wohl Architects, Inc.	RAC Builders, Inc.	CBI Consulting Inc.
201701170000	Crocinicia	CICCII INVOI	Ologeout	7.000ibiateu Nepali	20013, 201161		Construction Monitoring	Dore & Whittier Architects,		BVH Integrated
200901140505	Greenfield	Greenfield High School	Building Complete	Core Program	New Construction	CM@R	Services, Inc.	Inc.	Construction	Services, P.C.
					Roof, Windows /					<u> </u>
201601180005	Halifax	Halifax Elementary	OPM Selection	Accelerated Repair	Doors Windows / Doors,		- NETCO Construction	- Habeeb & Associates	-	CBI Consulting Inc.
201306750015	Hamilton-Wenham	Winthrop School	Closeout	Accelerated Repair	Boiler	DBB	Project Managers, Inc.	Architects, Inc.	E. Amanti & Sons, Inc.	Colliers International
					Addition /		,	Mount Vernon Group		
201301220015	Hanover	Sylvester	Schematic Design	Core Program	Renovation		P3 Inc.	Architects, Inc.	-	-
201501250005	Harvard	Harvard Elementary	OPM Selection	Core Program			-	-	-	-
201201280035	Haverhill	Caleb Dustin Hunking	Construction	Core Program	New Construction	CM@R	NV5 (fka Joslin, Lesser + Associates Inc.)	JCJ Architecture, PC	Shawmut Design and Construction	Colliers International
201101280100G	Haverhill	Consentino	Closeout	Green Repair	Windows / Doors	DBB	Vertex Construction Services	CSS Architects Incorporated	New England Builders & Contractors, Inc.	RDK Engineers Russo Barr Associates, Inc.
2011012001000	1 idvoiriiii	0011001111110	0.000000	O. Co Copan	77111401107 20010		Vertex Construction	CSS Architects	New England Builders &	Russo Barr Associates,
201101280085G	Haverhill	John G Whittier	Closeout	Green Repair	Windows / Doors	DBB	Services	Incorporated	Contractors, Inc.	Inc.
							Vertex Construction	CSS Architects		Russo Barr Associates,
201101280075G	Haverhill	Tilton	Closeout	Green Repair	Roof	DBB	Services	Incorporated	Titan Roofing, Inc.	Inc.
2044042000000	Haverhill	Walnut Square	Closeout	Cross Bossis	Roof, Windows / Doors	DBB	Vertex Construction Services	CSS Architects Incorporated	Titon Doofing Inc	RDK Engineers Russo Barr Associates, Inc.
201101280080G	пачетніі	wamut Square	Closeout	Green Repair	New Construction -	DBB	Knight, Bagge & Andersor		Titan Roofing, Inc.	Foreman Building
201001310410	Hingham	Hingham Middle School	Building Complete	Core Program	Model School	DBB	Inc.	Ai3 Architects LLC	Brait Builders Corp.	Commissioning, LP
200801330505	Holbrook	Holbrook Junior-Senior High School	Construction	Core Program	New Construction	CM@R	Symmes Maini & McKee Associates, Inc.	Flansburgh Associates, Inc.	Consigli Construction Company, Inc.	Consulting Engineering Services, LLC
201401370045	Holyoke	E N White Elem	Construction	Accelerated Repair	Boiler		STV Incorporated	Richard D. Kimball Company, Inc.	-	BVH Integrated Services, P.C.
201701010070	Toryone	L 14 44 HIG FIGHT	Constituction	7.000lerated Nepall	20161		O 1 V III COI POI ALGO	Company, Inc.		00111000, 1 .0.
201201370015	Holyoke	Lt Elmer J McMahon Elem	OPM Selection	Core Program			-	- Richard D. Kimball	-	BVH Integrated
201401370025	Holyoke	Morgan Elem	Construction	Accelerated Repair	Boiler		STV Incorporated	Company, Inc.	-	Services, P.C.
201201370605	Holyoke	Wm J Dean Voc Tech High	Building Complete	Science Lab Initiative	Addition / Renovation	DBB	Skanska USA Building, Inc	Kaestle Boos Associates, Inc.	RAC Builders, Inc.	BVH Integrated Services, P.C.
201301390005	Hopkinton	Center	Design Development	Core Program	New Construction	CM@R	Compass Project Management, Inc.	Drummey Rosane Anderson, Inc.	Colantonio, Inc.	RDK Engineers
								<u> </u>	<u> </u>	<u> </u>
0000011:-:-		John F. Kennedy Middle		0 5		222	PMA Construction	OND A 1%	Bacon-Agostini	W00 H04
200801410410	Hudson	School	Closeout	Core Program	New Construction	DBB	Services Atlantic Construction and	OMR Architects, Inc.	Construction Joint Venture	WSP USA
201401410007	Hudson	Mulready Elementary	Construction	Accelerated Repair	Roof		Atlantic Construction and Management, Inc.	Raymond Design Associates, Inc.	Capeway Roofing Systems, Inc.	CBI Consulting Inc.



-							PMA Construction			
201401440015	lpswich	Winthrop	Feasibility Study	Core Program			Services	Perkins Eastman/DPC	-	
004004400500		High School Learning	00140 1 "		D :					
201601490536	Lawrence	Center	OPM Selection	Accelerated Repair	Boiler		-	-	Greenwood Industries,	Russo Barr Associates,
201501510505	Leicester	Leicester High	Construction	Accelerated Repair	Roof		Hill International Company	Gale Associates Inc.	Inc.	Inc.
201001010000	201000101	Lotocoto: Tilgit	0011011 0011011	7 toooioratoa 1 topan	Roof, Windows /		NETCO Construction	Habeeb & Associates	Greenwood Industries,	Russo Barr Associates,
201501530025	Leominster	Johnny Appleseed	Construction	Accelerated Repair	Doors		Project Managers, Inc.	Architects, Inc.	Inc.	Inc.
							Architectural Consulting		Greenwood Industries,	Building Enclosure
201401530030	Leominster	Northwest	Closeout	Accelerated Repair	Roof		Group, LLC	Gale Associates, Inc.	Inc.	Associates, LLC
201501550035	Lexington	Maria Hastings	Designer Selection	Core Program			-	-	-	-
201401600505	Lowell	Lowell High	Feasibility Study	Core Program			Skanska USA Building, Inc	Perkins Eastman/DPC	-	-
201501610020	Ludlow	Chapin Street Elementary School	Eligibility Boried	Coro Brogram			_			
201301010020	Ludiow	East Street Elementary	Eligibility Period	Core Program				Johnson Roberts	Westfield Construction	<u> </u>
201501610010	Ludlow	School	Construction	Accelerated Repair	Roof, Boiler		STV Incorporated	Associates, Inc.	Co., Inc.	Colliers International
					,		NV5 (fka Joslin, Lesser +		Shawmut Design and	
201001620505	Lunenburg	Lunenburg High School	Building Complete	Core Program	New Construction	CM@R	Associates Inc.)	Tappe Associates, Inc.	Construction	Cannon Design
							NETCO Construction	Habeeb & Associates	Capeway Roofing	
201401630045	Lynn	E J Harrington	Closeout	Accelerated Repair	Roof		Project Managers, Inc.	Architects, Inc.	Systems, Inc.	CBI Consulting Inc.
004 404 000 400	Limin	Distante e Middle	EItility Objects	O D			1-66-14 110	Raymond Design		
201401630420	Lynn	Pickering Middle Thurgood Marshall Middle	Feasibility Study	Core Program			Leftfield, LLC NV5 (fka Joslin, Lesser +	Associates, Inc. Raymond Design	-	Rist-Frost-Shumway
200901630305	Lynn	School	Building Complete	Core Program	New Construction	CM@R	Associates Inc.)	Associates, Inc.	Walsh Brothers, Inc.	Engineering, P.C.
200001000000		0011001	Dunding Complete	Core i rogiam	140W Constitution	OWIGIT	NETCO Construction	Habeeb & Associates	vvaiori Brotricio, irio.	Linginicoling, 1.0.
201401630040	Lynn	Wm P Connery	Closeout	Accelerated Repair	Roof		Project Managers, Inc.	Architects, Inc.	Gibson Roofs, Inc.	CBI Consulting Inc.
-	Manchester Essex	Manchester Memorial						·	·	
201506980010	Regional	Elementary	Eligibility Period	Core Program			-	-	-	-
201501680015	Marblehead	Elbridge Gerry	Eligibility Period	Core Program			-	-	-	-
201501700025	Marlborough	Richer	OPM Selection	Core Program			-	-	-	-
201601710310	Marshfield	Furnace Brook Middle	OPM Selection	Accelerated Repair	Roof		-	-	-	-
1					New Construction -		Compass Project			Sebesta Blomberg &
201101710505	Marshfield	Marshfield High	Building Complete	Core Program	Model School	DBB	Management, Inc.	Ai3 Architects LLC	Brait Builders Ventures	Associates, Inc.
201601720035	Mashpee	Quashnet School	OPM Selection	Accelerated Repair	Windows / Doors		-	-	-	-
004404750007		5			D :				Performance Plumbing	DDI/F :
201401750007	Medfield	Ralph Wheelock School	Construction	Accelerated Repair	Boiler Windows / Doors		A rabita atural Canaultina	- Diet= 9 Company	and Heating	RDK Engineers
201301760505	Medford	Medford High	Closeout	Accelerated Repair	Windows / Doors, Boiler	DBB	Architectural Consulting Group, LLC	Dietz & Company Architects, Inc.	NB Kenney Company, Inc	Symmes, Maini &
201301700303	Wedioid	Wedioid Flight	Oloseout	Accelerated Repair	Doller	DDD	Gloup, ELO	Alcilitotis, ilio.	NB Refiney Company, inc	Russo Barr Associates,
201401770013	Medway	John D Mc Govern Elem	Closeout	Accelerated Repair	Windows / Doors		Arcadis U.S., Inc.	CBI Consulting Inc.	-	Inc.
							· · · · · · · · · · · · · · · · · · ·			Simpson Gumpertz &
201401780017	Melrose	Herbert Clark Hoover	Construction	Accelerated Repair	Windows / Doors		Colliers International	ICON architecture, inc.	-	Heger Inc.
					Addition /			Finegold Alexander and	Consigli Construction	Environmental Health
200801810505	Methuen	Methuen High School	Closeout	Core Program	Renovation	CM@R	KBA/Trident	Associates Inc.	Company, Inc.	and Engineering
201501820011	Middleborough	Memorial Early Childhood Center	Construction	Accelerated Repair	Roof		Architectural Consulting Group, LLC	Knight, Bagge & Anderson, Inc.	-	Russo Barr Associates, Inc.
201301020011	wiidulebolougil	OGINGI	CONSTRUCTION	Acceletated Mehall	11001		Compass Project	Anderson, Inc.	-	IIIO.
201401820505	Middleborough	Middleborough High	Feasibility Study	Core Program			Management, Inc.	-	-	- Duilding Fact
201401840003	Middleton	Fuller Meadow	Closeout	Accelerated Repair	Roof		Hill International Company	CBI Consulting Inc	-	Building Enclosure Associates, LLC
			2.000041		001		ca.ona company	cocaiig iiio.		
201101850090	Milford	Woodland	Building Complete	Core Program	New Construction	CM@R	NV5 (fka Joslin, Lesser + Associates Inc.)	HMFH Architects, Inc.	Shawmut Design and Construction	Consulting Engineering Services, LLC
20.10100000		Journa	Danding Complete	CC.OT TOGICALL	00110111011011	J.M.G.I.	Compass Project	17 (1011110010, 1110.	300	55.1.566, EEG
201401870005	Millis	Clyde F Brown	Feasibility Study	Core Program			Management, Inc.	Tappe Associates, Inc.	-	-
	Minuteman Voc	Minuteman Regional High	Approved Project				Skanska USA Building.	Kaestle Boos Associates.		Bard, Rao + Athanas Consulting Engineers,
200908300605	Tech	School	Vote Pending	Core Program	New Construction		Inc	Inc.	-	LLC
		Monomoy Regional High		1 10g.a	New Construction -		Skanska USA Building,	Mount Vernon Group		Sebesta Blomberg &
201107129999	Monomoy	School	Building Complete	Core Program	Model School	DBB	Inc	Architects, Inc.	Fontaine Brothers, Inc.	Associates, Inc.
	•		-	<u> </u>				<u> </u>		 -



201307150505	Mount Greylock	Mt Greylock Reg High	Design Development	Core Program	Addition / Renovation	CM@R	Dore & Whittier Management Partners, Inc.	Perkins Eastman/DPC	-	BVH Integrated Services, P.C.
200807200020	Narragansett	Templeton Center School	Design Development	Core Program			Colliers International	Symmes Maini & McKee Associates, Inc.	-	Fitzemeyer & Tocci Associates, Inc.
200807250015	Nashoba	Pompositticut Elementary School	Final Audit Approved	Core Program	Addition / Renovation	DBB	Construction Monitoring Services, Inc.	Symmes Maini & McKee Associates, Inc.	P.J. Stella Construction Corp.	Colliers International
201501980305	Natick	J F Kennedy Middle Sch	Eligibility Period				-	-	-	-
			Approved Project					Dore & Whittier Architects,		
201301990035	Needham	Hillside Elementary	Vote Pending	Core Program	New Construction		-	Inc.	-	-
201502010063	New Bedford	Alfred J Gomes	Construction	Accelerated Repair	Windows / Doors		Vertex Construction Services	_	_	CBI Consulting Inc.
201302010003	New Dealora	Allied 9 Collies	Construction	Accelerated Repair	Windows / Doors,		Vertex Construction			CBI Consulting Inc.
201502010123	New Bedford	Casmir Pulaski	Construction	Accelerated Repair	Boiler		Services	-	-	WSP USA
201502010078	New Bedford	Hayden/McFadden	Construction	Accelerated Repair	Windows / Doors, Boiler		Vertex Construction Services	-	-	CBI Consulting Inc. WSP USA
					Windows / Doors,		Vertex Construction			
201502010115	New Bedford	John Avery Parker	Schematic Design	Accelerated Repair	Boiler		Services	-	-	-
201602010115	New Bedford	John Avery Parker	OPM Selection	Accelerated Repair	Windows / Doors		-	-	-	-
200902010070	New Bedford	John Hannigan	Construction	Core Program	New Construction		Daedalus Projects Inc	Turowski2 Architecture, Inc.	-	WSP USA
		-		-			Vertex Construction			CBI Consulting Inc.
201502010045	New Bedford	Sgt Wm H Carney Acad	Construction	Accelerated Repair	Windows / Doors		Services	-	-	WSP USA
		Taylor School at the Sea Lab Marine Science			Addition /		Architectural Consulting	Mount Vernon Group	M. O'Connor Contracting,	
W201002019999P2	New Bedford	Education Center	Construction	Waitlist	Renovation	DBB	Group, LLC	Architects, Inc.	Inc.	WSP USA
1120100201000012	non Boarda	Eddediio Coc.	00110111011011	TT GITTIOT	New Construction -		C.04p, 220	7 11 07 11 10 10 10 10 10 10 10 10 10 10 10 10		Fitzemeyer & Tocci
201102040005	Newburyport	Francis T Bresnahan Elem	Closeout	Core Program	Model School	DBB	HEERY	HMFH Architects, Inc.	CTA Construction Co., Inc.	Associates, Inc.
201002040305	Marriaria	Rupert A. Nock Middle	Classout	Cara Drawnana	Addition /	CM@R	HEERY	Miller Duar Coass Inc	Gilbane Building	Fitzemeyer & Tocci Associates, Inc.
201002040305	Newburyport	School	Closeout	Core Program	Renovation	CIVIER	NV5 (fka Joslin, Lesser +	Miller Dyer Spears Inc. DiNisco Design	Company	Fitzemeyer & Tocci
201102070005	Newton	A E Angier	Building Complete	Core Program	New Construction	CM@R	Associates Inc.)	Partnership, Limited	W. T. Rich Company Inc.	Associates, Inc.
201302070025	Newton	Cabot	Schematic Design	Core Program		CM@R	NV5 (fka Joslin, Lesser + Associates Inc.)	DiNisco Design Partnership, Limited	W. T. Rich Company Inc.	_
201002010020	HOWION	Freeman-Kennedy	Concinatio Design	Core i regiani		OMER	NV5 (fka Joslin, Lesser +	Flansburgh Associates,	W. T. Haon Company Inc.	-
200802080005	Norfolk	Elementary School	Closeout	Core Program	New Construction	DBB	Associates Inc.)	Inc.	Fontaine Brothers, Inc.	WSP USA
-	Norfolk County	·			Addition /		Compass Project	Turowski2 Architecture,	·	Rist-Frost-Shumway
200909150705	Agriculture	Norfolk County Agr	Final Audit Approved	Core Program	Renovation	DBB	Management, Inc.	Inc.	Brait Builders Corp.	Engineering, P.C.
200002000205	North Adoms	Silvio O Conte Middle	Building Complete	Cara Draggan	Addition /	DBB	Calliara International	Jones Whitsett Architects,		Rist-Frost-Shumway
200802090305	North Adams	School	Building Complete	Core Program	Renovation	DBB	Colliers International	Inc.	Construction, Inc.	Engineering, P.C. Bard, Rao + Athanas
								Consulting Engineering		Consulting Engineers,
201402120015	North Attleborough	Roosevelt Avenue	Closeout	Accelerated Repair	Boiler		Pinck & Co., Inc.	Services, LLC	Falite Brothers Inc.	LLC
201602150015	North Brookfield	North Brookfield Elem	OPM Selection	Accelerated Repair	Roof		-	-	-	-
201607350030	North Middlesex	Hawthorne Brook	OPM Selection	Accelerated Repair			-	-	-	-
201107350505	North Middlesex	North Middlesex Reg	Construction	Core Program	New Construction	DBB	HEERY	Symmes Maini & McKee Associates, Inc.	CTA Construction Co., Inc.	Horizon Engineering
			Construction		INEW CONSTRUCTION	NDD	-	Associates, Inc.	-	ASSOCIATES, LLF
201607350020	North Middlesex	Squannacook	OPM Selection	Accelerated Repair						<u>-</u>
201607350035	North Middlesex	Varnum Brook	OPM Selection	Accelerated Repair			- Company Broingt	-	- Stonlay Poofing	Thompson & Lightner
201502170003	North Reading	E Ethel Little School	Construction	Accelerated Repair	Roof		Compass Project Management, Inc.	HAKS Engineers, P.C.	Stanley Roofing Company, Inc.	Thompson & Lichtner Co., Inc.
	-				Addition /		PMA Construction	Dore & Whittier Architects,		,
201002170505	North Reading	North Reading High Schoo		Core Program	Renovation	CM@R	Services	Inc.	Company	Cannon Design
201602100005	Northampton	Bridge Street	OPM Selection	Accelerated Repair	Roof		-	- December of Decima	-	- D A
201402100025	Northampton	Leeds	Building Complete	Accelerated Repair	Roof		STV Incorporated	Raymond Design Associates, Inc.	R & H Roofing, LLP	Russo Barr Associates, Inc.
201602100025	Northampton	Leeds	OPM Selection	Accelerated Repair	Roof		-	-	-	-
			2 00:00:00:					Raymond Design		Russo Barr Associates,
201402100029	Northampton	R. K. Finn Ryan Road	Closeout	Accelerated Repair	Roof		STV Incorporated	Associates, Inc.	R & H Roofing, LLP	Inc.
201102130003	Northborough	Lincoln Street	Building Complete	Core Program	Addition / Renovation	DBB	Colliers International	Lamoureux Pagano & Associates, Inc.	Brait Builders Corp.	Fitzemeyer & Tocci Associates, Inc.
201502140001	Northbridge	W Edward Balmer	Eligibility Period	Core Program	Nonovation	200	-	Associates, IIIc.	- Diak Bulluers Corp.	, toooolates, iiio.
201302140001	rvortribilitige	vv Luwaiu Daiiilei	Liigibility Fellod	Cole Flogialli			-	-	-	<u>-</u>



					Addition /					Rist-Frost-Shumway
200902180505	Norton	Norton High School	Closeout	Core Program	Renovation	CM@R	Pinck & Co., Inc.	JCJ Architecture, PC	W. T. Rich Company Inc.	Engineering, P.C.
201402200010	Norwood	Cornelius M Callahan	Closeout	Accelerated Repair	Boiler		PMA Construction Services	Consulting Engineering Services, LLC	George T. Wilkinson, Inc.	Symmes, Maini & McKee Associates
201102200010	110111000	Comondo III Cananan	0.000000	7 toobioratou Propan	201101		Architectural Consulting	00111000, 220	Goorge 11 17 manicon, mor	morto / locociato
201402240005	Orleans	Orleans Elementary	Construction	Accelerated Repair	Windows / Doors		Group, LLC	Tighe & Bond, Inc.	-	Gale Associates, Inc.
							Diversified Project			
200802260405	Oxford	Oxford Middle School	Closeout	Core Program	Repair	DBB	Management	CGKV Architects, Inc. Baker/Wohl Architects,	J.J. Cardosi, Inc. Allied Restoration	Cannon Design Building Enclosure
201308600605	Pathfinder Voc Tech	Pathfinder Voc Tech	Final Audit Approved	Accelerated Repair	Roof	DBB	exPERTcon, Inc.	Inc.	Corporation	Associates, LLC
2010000000	r daminaer vee reen		· mai / taak / kpi o roa	7 toooloratoa 7 topan	11001	555	0,4 21110011, 11101		Corporation	71000010100, 220
								DiNisco Design	Bacon-Agostini	BVH Integrated
200802290305	Peabody	Higgins Middle School	Building Complete	Core Program	New Construction	DBB	Daedalus Projects Inc	Partnership, Limited	Construction Joint Venture	
201402290016	Peabody	John E. McCarthy	Construction	Accelerated Repair	Roof, Windows / Doors		Hill International Company	Civitacte PC	_	Thompson & Lichtner Co., Inc.
201402230010	reabody	Peabody Veterans	Construction	Accelerated Repair	D0013		Municipal Building	OWNERS TO		Thompson & Lichtner
201502290510	Peabody	Memorial High	Schematic Design	Accelerated Repair	Roof		Consultants, Inc.	Civitects PC	-	Co., Inc.
									Greenwood Industries,	•
201302310010	Pembroke	Hobomock Elementary	Closeout	Accelerated Repair	Roof	DBB	Pinck & Co., Inc.	The S/L/A/M Collaborative	Inc.	CBI Consulting Inc.
201302310015	Pembroke	North Pembroke Elem	Closeout	Accelerated Repair	Roof	DBB	Pinck & Co., Inc.	The S/L/A/M Collaborative	Paul I Rogan Co. Inc.	CBI Consulting Inc.
201302310013	1 CHIDIORE	Pembroke Community	Oloseout	Accelerated Repair	11001	DDD	T HICK & GO., IIIC.	THE O/L/A/W CONADORATIVE	Taul J. Rogali Co., Ilic.	ODI CONSULLING INC.
201302310305	Pembroke	Middle School	Closeout	Accelerated Repair	Roof	DBB	Pinck & Co., Inc.	The S/L/A/M Collaborative	Paul J. Rogan Co., Inc.	CBI Consulting Inc.
									Greenwood Industries,	
201302310505	Pembroke	Pembroke High School	Closeout	Accelerated Repair	Roof	DBB	Pinck & Co., Inc.	The S/L/A/M Collaborative	Inc.	CBI Consulting Inc.
201507450505	Pentucket	Pentucket Reg Sr High	Eligibility Period				-	·	-	-
201002360510	Pittsfield	Taconic High School	Construction	Core Program	New Construction	CM@R	Skanska USA Building, Inc	Drummey Rosane Anderson, Inc.	Gilbane Building Company	Colliers International
201002300310	i ittolieiu	raconic riigir ocnool	Construction	Cole i Togram	New Construction	OWER	IIIC	Anderson, me.	Company	Comers international
							Ted Gentry Associates,		Bacon-Agostini	Rist-Frost-Shumway
201202390515	Plymouth	Plymouth South High	Construction	Core Program	New Construction	DBB	Inc	Ai3 Architects LLC	Construction Joint Venture	
004000400505	5	5	0	0 0		000	Atlantic Construction and	Raymond Design	E 4 (100)	BVH Integrated
201302420505	Provincetown	Provincetown High	Construction	Core Program	Repair	DBB	Management, Inc.	Associates, Inc.	E. Amanti & Sons, Inc.	Services, P.C.
201602430040	Quincy	Atherton Hough	OPM Selection	Accelerated Repair	Boiler Roof, Windows /		- Atlantic Construction and	Baker/Wohl Architects,	-	<u> </u>
201502430020	Quincy	Beechwood Knoll Elem	Design Development	Accelerated Repair	Doors		Management, Inc.	Inc.	-	CBI Consulting Inc.
201602430020	Quincy	Beechwood Knoll Elem	OPM Selection	Accelerated Repair	Boiler		-	-	-	-
201002100020	auoy	Docomood (mon Elom	01 111 0010011011	7 toooloratoa 7 topan	201101		PMA Construction	Russo Barr Associates,	Lockheed Window	Simpson Gumpertz &
201402430075	Quincy	Francis W Parker	Closeout	Accelerated Repair	Windows / Doors		Services	Inc.	Corporations	Heger Inc.
		Lincoln-Hancock Comm					PMA Construction	Russo Barr Associates,	Lockheed Window	Simpson Gumpertz &
201402430035	Quincy	Sch	Closeout	Accelerated Repair	Windows / Doors		Services	Inc. Habeeb & Associates	Corporations	Heger Inc.
201302430060	Quincy	Merrymount	Closeout	Accelerated Repair	Windows / Doors	DBB	Skanska USA Building, Inc	Architects, Inc.	Alpha Contracting Associates, Inc.	Simpson Gumpertz & Heger Inc.
201002400000	Quilley	Worrymount	Ologodat	7 toooloratea Ptopan	VVIII 00 VO / D0010	000	Atlantic Construction and	Baker/Wohl Architects,	710000iates, inc.	rieger ino.
201502430060	Quincy	Merrymount	Construction	Accelerated Repair	Roof		Management, Inc.	Inc.	Gibson Roofs, Inc.	CBI Consulting Inc.
201602430060	Quincy	Merrymount	OPM Selection	Accelerated Repair	Boiler		-	-	-	-
							Skanska USA Building,	Habeeb & Associates		Simpson Gumpertz &
201302430510	Quincy	North Quincy High	Closeout	Accelerated Repair	Windows / Doors	DBB	Inc	Architects, Inc.	GVW, Inc.	Heger Inc.
201302430320	Quincy	Reay E Sterling Middle	Approved Project Vote Pending	Core Program	New Construction		NV5 (fka Joslin, Lesser + Associates Inc.)	Ai3 Architects LLC	_	_
201302430320	Quility	Reay L Sterling Middle	vote Fending	Cole Flogram	New Construction		Skanska USA Building,	Habeeb & Associates	Northeast Energy Control	Simpson Gumpertz &
201302430110	Quincy	Wollaston School	Closeout	Accelerated Repair	Windows / Doors	DBB	Inc	Architects, Inc.	Systems	Heger Inc.
201602430110	Quincy	Wollaston School	OPM Selection	Accelerated Repair	Boiler		-	-	-	-
	•			*					Modern Glass &	
201402440018	Randolph	J F Kennedy Elem	Construction	Accelerated Repair	Windows / Doors		STV Incorporated	Taylor & Burns, Inc.	Aluminum, Inc.	Gale Associates, Inc.
204.402.4405.05	Dondolph	Dandalah I liah	Construction	Assolutated Densis	Windows / Do		CT/ In corn created	Taylor & Duran Inc	A&A Window Products,	Colo Accociatos Ivi-
201402440505	Randolph	Randolph High	Construction	Accelerated Repair	Windows / Doors		STV Incorporated	Taylor & Burns, Inc. Turowski2 Architecture,	Inc.	Gale Associates, Inc. Thompson & Lichtner
201502480056	Revere	Garfield Elementary School	Construction	Accelerated Repair	Roof		Leftfield, LLC	Inc.	-	Co., Inc.
201602480057	Revere	Garfield Middle School	OPM Selection				-	-	-	- ,
		Staff Sergeant James J.	2 00.00001					Drummey Rosane		Rist-Frost-Shumway
201002480035	Revere	Hill School	Building Complete	Core Program	New Construction	DBB	Hill International Company		CTA Construction Co., Inc.	
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200902580305G	Salem	Collins Middle School	Closeout	Green Repair	Roof, Windows / Doors, Boiler, Building Envelope	CM@R	KV Associates, Inc.	Reinhardt Associates, Inc.	Gilbane Building Company	Rist-Frost-Shumway Engineering, P.C.
201002580050G	Salem	Saltonstall School	Closeout	Green Repair	Roof, Windows / Doors, Boiler, Building Envelope	CM@R	KV Associates, Inc.	Reinhardt Associates, Inc.	Gilbane Building Company	Rist-Frost-Shumway Engineering, P.C.
201002620305	Saugus	Belmonte Middle School	Closeout	Core Program	Repair	CM@R	Skanska USA Building,	Fletcher Thompson Architecture Engineering, LLC	Consigli Construction Company, Inc.	Consulting Engineering Services, LLC
201402620505	Saugus	Saugus High	Feasibility Study	Core Program	'		PMA Construction Services	HMFH Architects, Inc.	-	-
201202640305	Scituate	Gates Intermediate School	Construction	Core Program	New Construction	DBB	Daedalus Projects Inc	Dore & Whittier Architects,	, Bacon-Agostini Construction Joint Venture	Webliev
201602660015	Sharon	Heights Elementary	OPM Selection	Accelerated Repair	Roof	DDD	- Daedalus Flojecis IIIC	-	-	-
201502710005	Shrewsbury	Beal School	Eligibility Period	Core Program	11001		-		-	-
200802710305	Shrewsbury	Sherwood Middle School	Closeout	Core Program	New Construction	CM@R	PMA Construction Services	Lamoureux Pagano & Associates, Inc.	Gilbane Building Company	RDK Engineers
200811119999	Somerset-Berkley	Somerset-Berkley High	Building Complete	Core Program	New Construction - Model School	DBB	Skanska USA Building, Inc	Ai3 Architects LLC	Bacon-Agostini Construction Joint Venture	Horizon Engineering Associates, LLP
200902740111E	Somerville	East Somerville Community School at Cummings	Closeout	Core Program	Renovation	CM@R	PMA Construction Services	Maguire Group Inc.	Gilbane Building Company	Foreman Building Commissioning, LP
201302740505	Somerville	Somerville High	Schematic Design	Core Program	Addition / Renovation		PMA Construction Services	Symmes Maini & McKee Associates, Inc.	-	-
201602740120	Somerville	Winter Hill Community	OPM Selection	Accelerated Repair	Roof, Windows / Doors		-	-	-	-
								Jones Whitsett Architects,		
200902780015	South Hadley	Plains School	Building Complete	Core Program	New Construction	DBB	Arcadis U.S., Inc.	Inc.	Fontaine Brothers, Inc.	Colliers International
201408730605	South Shore Reg Voc Tech	So Shore Voc Tech High	Closeout	Accelerated Repair	Boiler		exPERTcon, Inc.	Richard D. Kimball Company, Inc.	-	Consulting Engineering Services, LLC
201407650505	Southern Berkshire	Mt Everett Regional	Closeout	Accelerated Repair	Roof, Boiler		NETCO Construction Project Managers, Inc.	Dietz & Company Architects, Inc.	Titan Roofing, Inc.	Colliers International
200908760605	Southern Worcester Cty VT	Bay Path Regional Vocational Technical High School	Building Complete	Core Program	Addition / Renovation	CM@R	HEERY	Kaestle Boos Associates, Inc.	Company, Inc.	RDK Engineers
201107660305	Southwick-Tolland	Powder Mill	Closeout	Core Program	Repair	DBB	Colliers International	JCJ Architecture, PC	PDS Engineering and Construction, Inc.	BVH Integrated Services, P.C.
201107660505	Southwick-Tolland	Southwick-Tolland Regional High Woodland Elementary	Closeout	Core Program	Addition / Renovation Addition /	DBB	Colliers International	JCJ Architecture, PC	Fontaine Brothers, Inc. PDS Engineering and	BVH Integrated Services, P.C. BVH Integrated
200807660010	Southwick-Tolland	School	Closeout	Core Program	Renovation	DBB	Colliers International	JCJ Architecture, PC	Construction, Inc.	Services, P.C.
201602810095	Springfield	Alfred G Zanetti	OPM Selection	Accelerated Repair	Windows / Doors		-	-	-	
201602810015	Springfield	Balliet Elementary School	OPM Selection	Accelerated Repair	Roof		-	-		-
201602810360	Springfield	Balliet Middle School	OPM Selection	Accelerated Repair	Windows / Doors		-	-		-
201502810025	Springfield	Brightwood Chestnut Accelerated	Eligibility Period	Core Program			- Atlantic Construction and	-	-	Building Enclosure
201302810310	Springfield	Middle School	Closeout	Accelerated Repair	Roof	DBB	Management, Inc. Skanska USA Building,	CBI Consulting Inc.	J.D. Rivet & Co., Inc.	Associates, LLC Building Enclosure
201502810035	Springfield	Daniel B Brunton	Design Developmen	t Accelerated Repair	Windows / Doors		Inc	CBI Consulting Inc. Drummey Rosane	- Morganti/Aquadro &	Associates, LLC BVH Integrated
201102810030E	Springfield	Elias Brookings	Building Complete	Core Program	New Construction	CM@R	Arcadis U.S., Inc. Atlantic Construction and	Anderson, Inc.	Cerruti Kronenberger & Sons	Services, P.C. Building Enclosure
201302810530	Springfield	High School/Science-Tech	Closeout	Accelerated Repair	Roof	DBB	Management, Inc.	CBI Consulting Inc.	Restoration, INc.	Associates, LLC Building Enclosure
201402810328	Springfield	John F Kennedy Middle	Construction	Accelerated Repair	Windows / Doors		Arcadis U.S., Inc.	Gale Associates, Inc.	- Alpha Contracting	Associates, LLC Building Enclosure
201402810110	Springfield	Kensington Avenue	Construction	Accelerated Repair	Windows / Doors		Arcadis U.S., Inc.	Gale Associates, Inc.	Associates, Inc.	Associates, LLC
201602810110	Springfield	Kensington Avenue	OPM Selection	Accelerated Repair	Roof		-	-	-	-
201602810330	Springfield	M Marcus Kiley Middle	OPM Selection	Accelerated Repair	Windows / Doors		-	-	-	-



							Atlantic Construction and		Allied Restoration	Building Enclosure
201302810060	Springfield	Margaret C Ells	Closeout	Accelerated Repair	Roof	DBB	Management, Inc.	CBI Consulting Inc.	Corporation	Associates, LLC
201602810140	Springfield	Mary M Lynch	OPM Selection	Accelerated Repair	Roof		-	-	-	-
201502810155	Springfield	Mary M Walsh	Design Development	t Accelerated Repair	Windows / Doors		Skanska USA Building, Inc	CBI Consulting Inc.	-	Building Enclosure Associates, LLC
201302810355	Springfield	South End Middle School	Closeout	Accelerated Repair	Roof	DBB	Atlantic Construction and Management, Inc.	CBI Consulting Inc.	Titan Roofing, Inc.	Building Enclosure Associates, LLC
201202810500	Springfield	Springfield Central High	Closeout	Science Lab Initiative	Addition / Renovation	CM@R	Leftfield, LLC	DiNisco Design Partnership, Limited	Morganti/Aquadro & Cerruti	Horizon Engineering Associates, LLP
201302810550	Springfield	Springfield Public Day High School	n Closeout	Accelerated Repair	Roof	DBB	Atlantic Construction and Management, Inc.	CBI Consulting Inc.	-	Building Enclosure Associates, LLC
201502810550	Springfield	Springfield Public Day High School		· · · · · · · · · · · · · · · · · · ·	Windows / Doors		Skanska USA Building, Inc	CBI Consulting Inc.	_	Building Enclosure Associates, LLC
201502810350	Springfield	STEM Middle Academy	Design Development	· · · · · · · · · · · · · · · · · · ·	Roof		Skanska USA Building, Inc	CBI Consulting Inc.		Building Enclosure Associates, LLC
	· · ·	·			Addition /		NV5 (fka Joslin, Lesser +		Shawmut Design and	<u> </u>
200902840405	Stoneham	Stoneham Middle School	Final Audit Approved	Core Program	Renovation	CM@R	Associates Inc.)	Tappe Associates, Inc. Russo Barr Associates,	Construction Lockheed Window	RDK Engineers Building Enclosure
201302850010	Stoughton	Helen Hansen Elementary	Closeout	Accelerated Repair	Windows / Doors Roof, Windows /	DBB	Hill International Company Atlantic Construction and	Inc.	Corporations A&A Window Products,	Associates, LLC Building Enclosure
201402850025	Stoughton	Joseph H Gibbons	Construction	Accelerated Repair	Doors		Management, Inc.	CGKV Architects, Inc. Russo Barr Associates,	Inc. Lockheed Window	Associates, LLC Building Enclosure
201302850014	Stoughton	Joseph R Dawe Jr Elem	Closeout	Accelerated Repair	Windows / Doors	DBB	Hill International Company	Inc.	Corporations	Associates, LLC
201302850505	Stoughton	Stoughton High	Design Development	t Core Program	New Construction		Compass Project Management, Inc.	Drummey Rosane Anderson, Inc.	-	Fitzemeyer & Tocci Associates, Inc.
201502850020	Stoughton	West Elementary	Design Development	t Accelerated Repair	Windows / Doors		Compass Project Management, Inc.	CBI Consulting Inc.	<u>-</u>	Building Enclosure Associates, LLC
200802900305	Sutton	Sutton Middle School	Closeout	Core Program	Addition / Renovation	DBB	Colliers International	Flansburgh Associates, Inc.	Brait Builders Corp.	RDK Engineers
201602920006	Swansea	Elizabeth S Brown	OPM Selection	Accelerated Repair	Windows / Doors			-	-	.
201502930007	Taunton	Edmund Hatch Bennett	Design Development	t Accelerated Repair	Roof, Windows / Doors		Arcadis U.S., Inc.	CSS Architects Incorporated	-	Gale Associates, Inc.
201502930042	Taunton	Joseph H Martin	Design Development	t Accelerated Repair	Roof, Windows / Doors		Arcadis U.S., Inc.	CSS Architects Incorporated	-	Gale Associates, Inc.
	- .	Mulcahey Elementary	E 1177 O. I	0 0			004 B : 444	•		_
201402930015	Taunton	School	Feasibility Study	Core Program			CGA Project Management	-	-	
201502950025	Tewksbury	Louise Davy Trahan Tewksbury Memorial High	Eligibility Period		New Construction -		•	Symmes Maini & McKee	-	Sebesta Blomberg &
200802950505	Tewksbury	School	Closeout	Core Program	Model School	DBB	HEERY	Associates, Inc.	CTA Ventures	Associates, Inc.
201502960005	Tisbury	Tisbury Elementary	OPM Selection	Core Program				-	•	-
201602980005	Topsfield	Proctor Elementary	OPM Selection	Accelerated Repair	Roof			-	-	-
201602980010	Topsfield	Steward Elementary	OPM Selection	Accelerated Repair	Roof			-	-	-
201408780605	Tri County	Tri County Reg Voc Tech	Closeout	Accelerated Repair	Boiler		Colliers International	Shekar & Associates, Inc.	-	Fitzemeyer & Tocci Associates, Inc.
	· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·	Addition /			····		·
201507730025	Triton	Pine Grove	Designer Selection	Core Program	Renovation		- Municipal Building	- CSS Architects	- Greenwood Industries,	<u>-</u>
201403010505	Tyngsborough	Tyngsborough High School	Closeout	Accelerated Repair	Roof, Boiler		Consultants, Inc.	Incorporated Lamoureux Pagano &	Inc.	Colliers International Fitzemeyer & Tocci
200907750305	Wachusett	Mountview Middle School	Building Complete	Core Program	New Construction	DBB	- NV5 (0 - 1 - 1 - 1 -	Associates, Inc.	CTA Construction Co., Inc.	
201003050310	Wakefield	Galvin Middle School	Closeout	Core Program	New Construction	CM@R	NV5 (fka Joslin, Lesser + Associates Inc.)	Tappe Associates, Inc.	Bond Brothers, Inc.	B2Q Associates, Inc.
201403080505	Waltham	Waltham High School	Feasibility Study	Core Program			NV5 (fka Joslin, Lesser + Associates Inc.)	Symmes Maini & McKee Associates, Inc.	-	-
		John W. Decas Elementary								Bard, Rao + Athanas Consulting Engineers, LLC Gale Associates,
201503100003	Wareham	School	Design Development	t Accelerated Repair	Roof, Boiler		Colliers International	ICON architecture, inc.	-	Inc.
201503100017	Wareham	Minot Forest	Eligibility Period	Core Program			-	-	-	
201503140305	Watertown	Watertown Middle	Design Development	t Accelerated Repair	Windows / Doors		exPERTcon, Inc.	Gale Associates, Inc.	-	Thompson & Lichtner Co., Inc.
201403150005	Wayland	Claypit Hill School	Construction	Accelerated Repair	Windows / Doors		Pinck & Co., Inc.	CGKV Architects, Inc.	Lockheed Window Corporations	Russo Barr Associates, Inc.
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201603150020	Wayland	Loker School	OPM Selection	Accelerated Repair	Windows / Doors		-	-	-	-
200903160015	Webster	Park Avenue Elementary School	Building Complete	Core Program	New Construction	DBB	Hill International Company	Dore & Whittier Architects,	CTA Construction Co., Inc.	Cannon Dosign
200903100013	Webster	301001	Building Complete	Cole Flogram	New Construction	DDD	Tilli lillemational Company	CSS Architects	CTA CONSTRUCTION CO., INC.	Carmon Design
201403170305	Wellesley	Wellesley Middle	Construction	Accelerated Repair	Windows / Doors		Arcadis U.S., Inc.	Incorporated	Paul J. Rogan Co., Inc.	Gale Associates, Inc.
200803170505	Wellesley	Wellesley Senior School	Closeout	Core Program	New Construction	CM@R	-	Symmes Maini & McKee Associates, Inc.	-	Rist-Frost-Shumway Engineering, P.C.
201303180005	Wellfleet	Wellfleet Elementary	Final Audit Approved	Accelerated Repair	Roof	DBB	Architectural Consulting Group, LLC	CSS Architects Incorporated	DDC Construction Inc.	Russo Barr Associates, Inc.
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201103220005G	West Boylston	Major Edwards Elementary	Closeout	Green Repair	Windows / Doors	DBB	URS Corporation	Reinhardt Associates, Inc. Tai Soo Kim Partners,	- Capeway Roofing	Cannon Design Thompson & Lichtner
201503230005	West Bridgewater	Spring Street School West Bridgewater Middle-	Construction	Accelerated Repair	Roof		Potomac Capital Advisors	· ·	Systems, Inc.	Co., Inc.
201003230505	West Bridgewater	Senior High School	Building Complete	Core Program	New Construction	DBB	Colliers International	Inc.	CTA Construction Co., Inc.	Cannon Design
200903320505	West Springfield	West Springfield High School	Closeout	Core Program	New Construction - Model School	DBB	Colliers International	Symmes Maini & McKee Associates, Inc.	Fontaine Brothers, Inc.	Turner Facilities Management Solutions
200903210305	Westborough	Gibbons Middle School	Construction	Core Program	Repair		HEERY	Habeeb & Associates Architects, Inc.	Gilbane Building Company	BVH Integrated Services, P.C.
200303210303	Westborough	Abner Gibbs Elementary	Construction	Cole i Togram	New Construction -		Skanska USA Building,	Jones Whitsett Architects,	Company	Horizon Engineering
200903250020	Westfield	School	Construction	Core Program	Model School	DBB	Inc	Inc.	Fontaine Brothers, Inc.	Associates, LLP
201303260025	Westford	Col John Robinson	Building Complete	Accelerated Repair	Windows / Doors	DBB	Colliers International	Gale Associates, Inc.	GTC Construction Management	CBI Consulting Inc.
201303260007	Westford	Day Elementary	Building Complete	Accelerated Repair	Windows / Doors	DBB	Colliers International	Gale Associates, Inc.	J.J. Cardosi, Inc.	CBI Consulting Inc.
200903300012	Weston	Field Elementary School	Closeout	Core Program	New Construction	DBB	Compass Project Management, Inc.	Jonathan Levi Architects LLC	Colantonio, Inc.	Foreman Building Commissioning, LP
201403310305	Westport	Westport Middle	Feasibility Study	Core Program			Daedalus Projects Inc	Jonathan Levi Architects LLC	-	-
200803400005	Williamsburg	Anne T. Dunphy School	Closeout	Core Program	Addition / Renovation	DBB	Arcadis U.S., Inc.	Drummey Rosane Anderson, Inc.	Enfield Builders, Inc.	B2Q Associates, Inc.
200903420505	Wilmington	Wilmington High School	Building Complete	Core Program	New Construction	CM@R	NV5 (fka Joslin, Lesser + Associates Inc.)	Dore & Whittier Architects, Inc.	Gilbane Building Company	Symmes, Maini & McKee Associates
201003440505	Winchester	Winchester High School	Construction	Core Program	Addition / Renovation	CM@R	Skanska USA Building, Inc	Symmes Maini & McKee Associates, Inc.	Consigli Construction Company, Inc.	RDK Engineers
201003440303	Willenester	Willenester High School	Construction	Cole Flogram	Renovation	CIVIER	Skanska USA Building,	Associates, IIIc.	Gilbane Building	NDR Engineers
200803460505	Winthrop	Winthrop High School	Building Complete	Core Program	New Construction	CM@R	Inc	HMFH Architects, Inc.	Company	WSP USA
201203470060	Woburn	Wyman	Design Development	t Core Program	New Construction		Municipal Building Consultants, Inc.	DiNisco Design Partnership, Limited	E.T. and L. Corp.	Fitzemeyer & Tocci Associates, Inc.
201603480020	Worcester	Belmont Street Community	OPM Selection	Accelerated Repair	Windows / Doors		-	-	-	
201603480050	Worcester	Chandler Elem Community	OPM Selection	Accelerated Repair	Windows / Doors, Boiler		-	-	-	-
204 402 400055	Marantar	Clark Ct Community	Classout	Assolutated Dancis	Windows / Doors		Architectural Consulting Group, LLC	ICON anabitantum inc	I I Cardoni Inn	Russo Barr Associates,
201403480055	Worcester	Clark St Community	Closeout	Accelerated Repair	Windows / Doors		Group, LLC	ICON architecture, inc.	J.J. Cardosi, Inc.	Inc.
004000400000	10/	Oaksanks a Dank	Duildin o Oceandata	A la ta d D ia	Windows / Doors,	DBB	Architectural Consulting	The O(I) /A /A / O - II - It	Ocatacatada Naturada Ira	RDK Engineers Russo
201303480060	Worcester	Columbus Park	Building Complete	Accelerated Repair	Boiler	DDD	Group, LLC	CSS Architects	Contractor's Network, Inc.	Barr Associates, Inc. Russo Barr Associates,
201503480090	Worcester	Flagg Street	Construction	Accelerated Repair	Windows / Doors		Arcadis U.S., Inc.	Incorporated	-	Inc.
201503480177	Worcester	Francis J McGrath Elem	Construction	Accelerated Repair	Windows / Doors		Arcadis U.S., Inc.	CSS Architects Incorporated	-	Russo Barr Associates, Inc.
204602404004	Worcester	Gerald Creamer Center	OPM Selection	Assolutated Dancis	Windows / Doors, Boiler					
201603481004	worcester	Geraid Creamer Center	OPIVI Selection	Accelerated Repair	Boller		Architectural Consulting	-	Lambrian Construction	Russo Barr Associates,
201403480100	Worcester	Goddard Sch/Science Tech	Closeout	Accelerated Repair	Windows / Doors		Group, LLC	ICON architecture, inc.	Corp.	Inc.
					Windows / Doors,			CSS Architects		Rist-Frost-Shumway Engineering, P.C. Russo Barr Associates,
201503480115	Worcester	Grafton Street	Construction	Accelerated Repair	Boiler		Arcadis U.S., Inc.	Incorporated CSS Architects	J.J. Cardosi, Inc.	Inc. Russo Barr Associates.
201503480140	Worcester	Jacob Hiatt Magnet	Construction	Accelerated Repair	Windows / Doors		Arcadis U.S., Inc.	Incorporated	-	Inc.



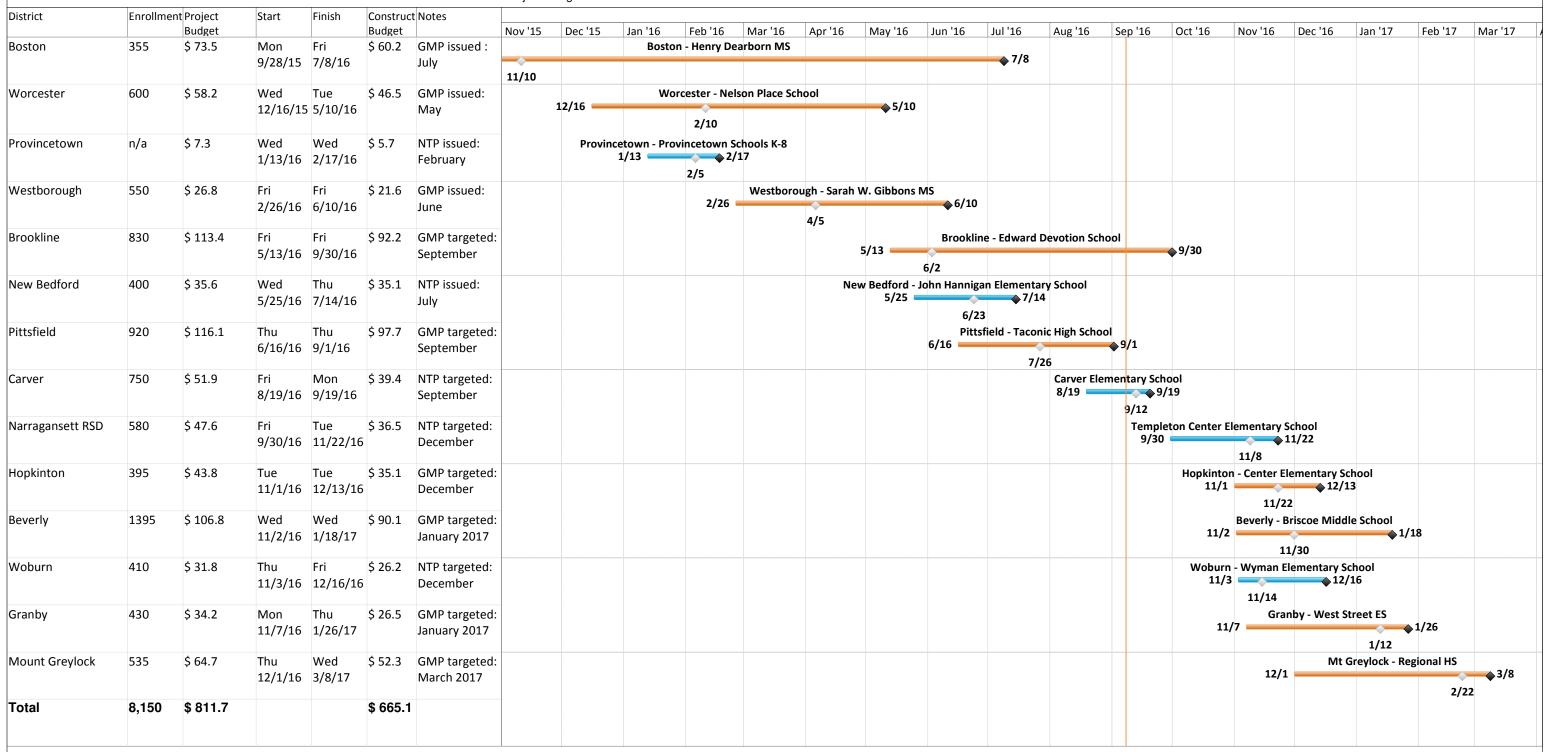
201203480200	Worcester	Nelson Place	Construction	Core Program	New Construction	CM@R	Tishman Construction Corporation of MA	Lamoureux Pagano & Associates, Inc.	Fontaine Brothers, Inc.	Bard, Rao + Athanas Consulting Engineers, LLC
201403480520	Worcester	South High Community	Feasibility Study	Core Program			HEERY	-	-	-
201303480230	Worcester	Tatnuck	Building Complete	Accelerated Repair	Windows / Doors	DBB	Architectural Consulting Group, LLC	The S/L/A/M Collaborative	GVW, Inc.	Russo Barr Associates, Inc.
201403480240	Worcester	Union Hill School	Closeout	Accelerated Repair	Windows / Doors		Architectural Consulting Group, LLC	ICON architecture, inc.	J.J. Cardosi, Inc.	Russo Barr Associates, Inc.
201603480026	Worcester	Wawecus Road School	OPM Selection	Accelerated Repair	Windows / Doors		-	-	-	-
201403480260	Worcester	West Tatnuck	Closeout	Accelerated Repair	Windows / Doors		Architectural Consulting Group, LLC	ICON architecture, inc.	J.J. Cardosi, Inc.	Russo Barr Associates, Inc.
		Worcester Arts Magnet					Architectural Consulting			Russo Barr Associates,
201303480225	Worcester	Sch	Building Complete	Accelerated Repair	Windows / Doors	DBB	Group, LLC	The S/L/A/M Collaborative	GVW, Inc.	Inc.
201303480420	Worcester	Worcester East Middle	Building Complete	Accelerated Repair	Boiler	DBB	Architectural Consulting Group, LLC	The S/L/A/M Collaborative	Contractor's Network, Inc.	RDK Engineers
201503500003	Wrentham	Delaney	Approved Project Vote Pending	Accelerated Repair	Roof		P3 Inc.	Turowski2 Architecture, Inc.	-	Gale Associates, Inc.

APPENDIX B 2016 & 2017 ESTIMATED BID DATES

2016 ESTIMATED BID DATES

Note bid dates are Estimates ONLY. Please contact Districts for exact information.

Total Project Budget denotes total District costs and does not denote the basis of the MSBA Total Facilities Grant.



Note: Budget values are in millions.

The project start date represents the Filed-Sub bid solicitation date, gray diamond Filed-Sub bid date, and the black diamond GC Bids / GMP Execution.

1/15 3/31 1/22 3/31 2/24 DBB Project 2/21 CMR Project

09/07/2016

2017 ESTIMATED BID DATES

Note bid dates are Estimates ONLY. Please contact Districts for exact information.

Total Project Budget denotes total District costs and does not denote the basis of the MSBA Total Facilities Grant.

District	Enrollmen	t Project	Start	Finish	Construct	Notes													
		Budget			Budget		Jan '17	Feb '17	Mar '17	Apr '17	May '17	Jun '17	Jul '17	Aug '17	Sep '17	Oct '17	Nov '17	Dec '17	Jan '18
Stoughton	1065	\$ 123.5	Wed	Wed	\$ 97.2	GMP targeted:						Stoughton Hi							
			5/24/17	7/26/17		July 2017					5/24 —	*	*	7/26					
												6/21							
Billerica	1610	\$ 175.9	Mon	Fri	\$ 140.7	GMP targeted:								Billerica Me	emorial High S	chool			
			6/5/17	12/8/17		December					6	/5		\				→ 12/8	
						2017								8/25					
Dedham	200	\$ 33.2	Thu	Thu	\$ 26.2	NTP targeted:						Dedham Earl	y Childhood Educ	ation Center					
			6/15/17	8/10/17		August 2017						6/15	*	→ 8/10					
													7/6						
Total	2875	\$ 332.6			\$ 264.1														
					·														

Note: Budget values are in millions.

The project start date represents the Filed-Sub bid solicitation date, gray diamond Filed-Sub bid date, and the black diamond GC Bids / GMP Execution.

CMR Project

1/15 3/17 1/22 3/31 2/24 DBB Project 2/21 09/07/2016

APPENDIX C CONSTRUCTION STATUS REPORT

Projects in Construction MSBA Grant Basis and Maximum Grant Amount Data Reported as of August 26, 2016

Core	Program and Waitli	st Totals	\$2,647,965,107	7	DE4								Oct - J			*Includes Alternates	\$1,611,349
Project	Grade	Contractor	Total Construction Cost*	Projected Enrollment	or or	Proposed Sq.Ft.		lding	Building Cost/Sq.Ft.	Procurement Type	Construction Start Date	Substantial Completion	Schedule Variance	Physical Progress	Change Orders**	Change Construction Orders % Status	Est Max Tota Facilities
			0031	Lindinicik	Bid Data	oq.i t.	oostoq.i t.	ost	003004.1 t.		NE PROJECTS IN		(days)	1 Togicoo	Orders	Citation 70	Grant
Core Program Totals			\$2,639,000,107	7													\$1,621,222
Abington Frolio Jr Hs	Junior High School	Brait Builders Corp.	\$78,791,215	1,115	Bid	235,370	\$335 \$61	468,040	\$261	Design/Bid/Build	03-Dec-15	18-Jul-17	0	45%	\$69,850	0.091% Phase one construction continues with mechanical, electrical, plumbing, window installation and masonry work. Site utility and synthetic fields work has been completed and are ready for use.	\$48,528
Athol-Royalston	Elementary School	Fontaine Brothers, Inc.	\$31,594,000	545	Bid	95,726	\$330 \$24	859,000	\$260	Design/Bid/Build	08-Dec-14	14-Jun-16	0	99%	\$1,797,325	5.689% Project achieved substantial completion and furniture, fixtures and equipment are being installed. Remaining work includes	\$26,011
Riverbend Chicopee	Middle School	Fontaine Brothers, Inc.	\$31,487,000	825	Bid	176,425	\$178 \$25	639.000	\$145	Design/Bid/Build	01-Jul-14	11-Aug-15	0	99%	\$2,063,322	courtyard landscaping, sidewalks and the playfields. 6.553% Final punch list and commissioning items are ongoing.	\$28,813
Chicopee Academy Dracut	High School	CTA Construction Co., Inc.	\$45,900,000			226,844				Design/Bid/Build	27-Aug-12	29-Aug-14	0	99%		5.750% Work to resolve site drainage issue ongoing and will be finalized after landscaping. Work associated with rooftop dunnage is	\$34,137
Dracut Senior High Franklin	-	Bacon-Agostini Construction								-						uidelway.	
Franklin High Georgetown	High School	Joint Venture	\$86,778,700			306,543				Design/Bid/Build	16-Oct-12	25-Jul-14	0	99%		1.286% Landcsape Contractor continues presence on site doing touch up landscaping in the fields.	\$54,55
eorgetown Middle/High	Junior High School	L.D. Russo, Inc.	\$5,279,622	2 720	Bid	128,670	\$41 \$4	265,936	\$33	B Design/Bid/Build	15-Apr-15	21-Dec-15	0	100%	\$562,131	10.647% Punch list work is ongoing.	\$3,37
Georgetown Penn Brook	Elementary School	Brait Builders Corp.	\$32,875,975	770	Bid	98,000	\$335 \$26	976,145	\$275	Design/Bid/Build	26-Sep-13	20-May-15	0	100%	\$3,922,227	11.930% Punch list and site work are ongoing. Commissioning is complete.	\$18,86
Hingham Iingham Middle School	Middle School	Brait Builders Corp.	\$48,436,000	1,020	Bid	176,385	\$275 \$41	227,552	\$234	Design/Bid/Build	07-Jun-12	01-May-14	0	100%	\$773,330	1.615% Landscaping work to be completed.	\$23,65
Marshfield Marshfield High	High School	Brait Builders Ventures	\$84,980,000	1,310	Bid	267,469	\$318 \$64	604,850	\$242	Design/Bid/Build	16-Aug-12	01-Jun-14	0	99%	\$2,200,718	2.765% Minor punch list items remain. The project is progressing towards closeout.	\$46,55
Monomoy Monomoy Regional High	High School	Fontaine Brothers, Inc.	\$49,374,000	700	Bid	168,000	\$294 \$41	433.695	\$247	Design/Bid/Build	11-Feb-13	02-Sep-14	0	99%	\$1,175,288	2.448% Ongoing mechanical equipment issues continue which the project team is working to rectify.	\$27,65
School	g cc.		7 ,				7	,	•						**,***,=**		———
New Bedford John Hannigan	Elementary School	HV Collins Company	\$29,792,732	2 400	PFA	74,056	\$402 \$20	536,621	\$277	Design/Bid/Build	11-Aug-16	7-Aug-17	0	13%	\$0	0.000% Early demolition and abatement work at existing school/site are currently underway. General contractor is mobilizing at the project site.	\$22,428
North Adams Silvio O Conte Middle	Middle School	PDS Engineering and Construction, Inc.	\$21,877,496	310	Bid	78,119	\$280 \$17	831,491	\$228	Design/Bid/Build	28-Apr-14	03-Dec-15	0	100%	\$2,162,137	9.883% Work proceeding on punch list, warranty, and open commissioning items.	\$20,508
North Middlesex North Middlesex Reg	High School	CTA Construction Co., Inc.	\$64,995,000	870	Bid	180,530	\$360 \$49	909,000	\$276	Design/Bid/Build	25-May-15	14-Jul-17	0	48%	\$114,920	Ongoing work includes slab on grade pours, roof membrane and roof insulation. First and second floor above ceiling 0.177% mechanical, electrical and plumbing rough-ins are ongoing. Exterior work includes air vapor barrier and exterior building veneer system installation.	\$38,47
Northborough Lincoln Street	Elementary School	Brait Builders Corp.	\$18,450,000	270	Bid	52,920	\$349 \$14	514,966	\$274	Design/Bid/Build	27-Apr-15	31-Aug-16	0	94%	\$89,377	0.484% Work is substantially complete. Punch list items and landscaping are ongoing.	\$9,92
Peabody J Henry Higgins Middle	Middle School	Bacon-Agostini Construction Joint Venture	\$70,679,700	1,340	Bid	227,314	\$311 \$52	186,177	\$230	Design/Bid/Build	10-Mar-14	05-Aug-16	0	90%	\$324,600	Building move is complete. All district belongings have been removed from the existing school. Ongoing work includes MEP 0.459% start-up, commissioning, punch list activities and final inspections. Abatement of the existing heat plant is complete and phase one of the abatement of the existing school has begun. Punchlist activities and final inspections are in progress.	\$38,65
Plymouth Plymouth South High	High School	Bacon-Agostini Construction Joint Venture	\$90,266,700	1,005	Bid	248,081	\$364 \$66	744,766	\$269	Design/Bid/Build	06-Jul-15	05-May-17	0	45%	\$115,641	Work is progressing from Phase 1 to 7 according to schedule. Perimeter metal framing and exterior masonry work are ongoing. Low level roof installations are ongoing after the mason subcontractor completes their work. Mechanical ductwork, piping, plumbing, electrical and fire protection work are ongoing. Site work preparation in Phase 1a and 1b are complete and ready for play fields and courts construction to start.	\$45,73
Provincetown Provincetown High	High School	E. Amanti & Sons, Inc.	\$5,709,882	2 N/A	PFA	62,645	\$91 \$3	671,169	\$59	Design/Bid/Build	14-Mar-16	31-Oct-16	0	52%	\$85,368	Project has been divided into six phases with multiple sub-phases. Work currently includes Phase 2 - Boiler Room and Utility 1.495% Corridor; Phase 3A - Renovations to science and program-specific classrooms and, Phase 6B - Rooftop mechanical, electrical and plumbing activities.	\$3,37
Revere f Sergeant James J. Hill School	Elementary School	CTA Construction Co., Inc.	\$31,975,839	690	Bid	103,650	\$308 \$27	439,789	\$265	Design/Bid/Build	25-Mar-14	17-Aug-15	0	99%	\$1,110,455	3.473% The contractor is in the process of completing work to close out the project including punch list items.	\$28,0
Scituate es Intermediate School	Middle School	Bacon-Agostini Construction Joint Venture	\$61,980,444	710	PFA	164,803	\$376 \$43	653,890	\$265	5 Design/Bid/Build	08-Dec-15	26-Jul-17	0	42%	\$460,034	Middle school academic wing exterior framing and air vapor barrier are in progress. Overhead and in-wall mechanical rough-ins 0.742% are in progress. Middle school gym structural steel has started and roofing for middle school and high school auditorium is in progress. High School Auditorium exterior brick veneer is complete. Paving is in progress.	\$20,6
Somerset-Berkley omerset-Berkley High	High School	Bacon-Agostini Construction Joint Venture	\$69,407,000	1,000	Bid	222,826	\$311 \$52	553,676	\$236	Design/Bid/Build	16-Jul-12	20-Jun-14	0	99%	\$842,373	1.280% Phase 3 site restoration work has been completed. Resolution of change order items and punch list are ongoing.	\$46,7
South Hadley Plains Elementary	Elementary School		\$21,391,144	4 270	Bid	63,377	\$338 \$17	380,907	\$274	Design/Bid/Build	08-May-14	04-Sep-15	0	99%	\$1,671,680	7.815% Contractor is addressing punch list items and completing phased site work.	\$13,67
Wachusett	Middle School	CTA Construction Co., Inc.	\$43,122,257	7 800	Bid	126,200	\$342 \$28	959,805	\$229	Design/Bid/Build	21-May-14	11-Apr-16	0	87%	\$538,238	1.248% Abatement and demolition of the existing Mountview Middle School has been completed. Installation of the new soccer field	\$24,2
Mountview Middle Webster	Flementary School	CTA Construction Co., Inc.	\$32,370,001			109,597		190 915		Design/Bid/Build	08-Jul-13	06-Feb-15	0	100%		and other site finishes are ongoing. 3.523% Remaining work to be completed includes miscellaneous punch list items .	\$28,1
rk Avenue Elementary West Bridgewater		CTA Construction Co., Inc.	\$46,267,914			141,250				B Design/Bid/Build	01-Oct-13	09-Jul-15	0	95%		0.665% Work continues on the punch list as well as completion of sound, security and fire alarm systems. Commissioning of the	\$26,3
est Bridgewater Jr-Sr	Julioi Flight School	CTA Construction Co., Inc.	\$40,207,914	+ 025	Бій	141,230	\$320 \$33	071,100	φ240	Design/Blu/Bullu	01-001-13	09-3ul-15	0	9376	φ301,191	building is ongoing.	φ20,3
Westfield Abner Gibbs	Elementary School	Fontaine Brothers, Inc.	\$25,578,000	600	Bid	95,573	\$268 \$21	444,000	\$224	Design/Bid/Build	24-Aug-12	01-Jun-16	0	2%	\$0	Work stoppage due to preliminary injunction based upon project site status as Article 97 "Protected Land". Preliminary 0.000% Injunction vacated but city awaiting National Park Service approval for use of site. The General Contractor has demobilized from the site. The project team is working on closing out the General Contractor's contract.	\$20,0
Ayer-Shirley yer-Shirley Regional Middle/High School	High School	Consigli Construction Company, Inc.	\$44,516,576	495	Bid	144,072	\$309 \$32	082,505	\$223	3 CM-at-Risk	19-Feb-13	31-Aug-15	0	100%	\$1,351,635	This is a 6-phase addition/renovation project which is complete except for minor landscaping issues to be completed in Fall 2016.	\$34,
Boston Dearborn	Middle School	Gilbane Building Company	\$60,245,740	600	PFA	128,304	\$470 \$36	655,002	\$286	6 CM-at-Risk	08-Sep-15	23-Dec-17	0	18%	\$0	0.000% Steel erection is complete. Slab placement is underway. Site utilities have begun.	\$36,
Brookline Edward Devotion	Elementary School	Shawmut Design and Construction	\$92,237,854	1,010	PFA	227,087	\$406 \$57	910,095	\$255	CM-at-Risk	11-Jul-16	31-Jul-18	0	1%	\$0	0.000% The contractor has mobilized to the site and commenced site clearing, utility work and asbestos abatement.	\$25,
Chelsea ark Avenue School	Middle School	W. T. Rich Company Inc.	\$46,046,367	7 670	Bid	115,235	\$400 \$29	311,076	\$254	CM-at-Risk	23-Feb-15	29-Jun-18	0	47%	\$125,353	Work is proceeding on all floors. Drywall installation is complete and priming/finish painting is underway along with tile, 0.272% casework, flooring, and ceiling grids. Mechanical and electrical finishes are being installed. Installation of the elevator has begun. Exterior masonry has been completed, and window installation continues.	\$36
Duxbury Duxbury High	Junior High School	Dimeo Construction Company	\$105,475,520	1,735	Bid	322,105	\$327 \$73	368,123	\$228	B CM-at-Risk	12-Sep-12	09-Jun-14	0	100%	\$6,097,560	6.124% Contractor is working on replacement of some plantings and concrete side walks under warranty.	\$48,
Essex Agr Tech ex Agr and Tech Inst	Vocational / Technical	Gilbane Building Company	\$110,217,451	1 1,440	Bid	337,000	\$327 \$79	334,889	\$235	CM-at-Risk	07-May-12	27-Aug-14	0	99%	\$3,012,189	2.733% One punch list item remains to be completed which is pending a variance request.	\$72,
Gloucester	Elementary School	W. T. Rich Company Inc.	\$29,995,466	355	Bid	65,679	\$457 \$18	591,872	\$283	B CM-at-Risk	07-Jul-14	15-Jul-16	0	98%	\$304,012	1.014% Project achieved substantial completion. Punch list and commissioning items are ongoing.	\$14
West Parish eater Lowell Voc Tec	Vocational /	Consigli Construction	\$52,472,010			505,766			\$77		04-Nov-13	31-Aug-15	0	99%		7.826% All work that was included in the original 3-phase project scope is complete other than minor punch list items.	\$45,
Lowell Reg Voc Tech Greenfield	Technical	Company, Inc. Shawmut Design and									27-Mar-13		0				
Greenfield High	High School	Construction	\$53,507,787	7 585	Bia	160,650	\$333 \$37	012,150	\$235	CM-at-Risk	∠/-iviar-13	31-Oct-15	U	100%	\$1,152,785	2.154% Construction is complete, the project is in the closeout phase. Classroom plumbing fixtures are complete in Area A and ongoing in Areas B and C. HVAC balancing is complete in Area A and	\$42,1
Haverhill Caleb Dustin Hunking	Middle School	Shawmut Design and Construction	\$49,544,769	1,005	Bid	147,996	\$335 \$35	181,852	\$238	CM-at-Risk	20-Apr-15	30-Dec-16	0	80%	\$1,019,775	2.058% commenced in Area C. Classroom casework is nearly complete on the first floor of Area A and the first and second floors of Area C. Demolition of the existing gym and cafeteria are complete.	\$39,5

Projects in Construction MSBA Grant Basis and Maximum Grant Amount Data Reported as of August 26, 2016

Core P	Program and Waitli	st Totals	\$2,647,965,107														*Includes Alternates	\$1,611,349,44
Project	Grade	Contractor	Total Construction Cost*	Projected Enrollment	PFA or Bid Data	Proposed Sq.Ft.	Construction Cost/Sq.Ft.	Building Cost	Building Cost/Sq.Ft.	Procurement Type	Construction Start Date	Substantial Completion	Schedule Variance (days)	Physical Progress	Change Orders*			Est Max Total Facilities Grant
										CAPITAL PIPELI	NE PROJECTS IN	CONSTRUCTION						
Core Program Totals			\$2,639,000,107															\$1,621,222,28
Holbrook Holbrook Jr Sr High	High School	Consigli Construction Company, Inc.	\$78,135,643	1,095	Bid	217,353	\$359	\$52,399,810	\$241	CM-at-Risk	24-Jun-15	05-Jun-17	0	42%	\$405,	392 0.52	Building A- metal stud framing, ductwork, fire suppression, plumbing, electric, drywall, taping, fire stopping and metal pan stairs are ongoing. Building B- ductwork, fire suppression, plumbing, electric, CMU walls, staging setup and roofing are ongoing. Building C- metal stud framing, ductwork, fire suppression, plumbing, electric, drywall, taping and fire stopping are ongoing. Irrigation system and versa lok block wall installations continue.	\$53,832,91
Lunenburg Lunenburg High	Junior High School	Shawmut Design and Construction	\$57,994,017	820	Bid	169,018	\$343	\$41,982,415	\$248	CM-at-Risk	15-Aug-14	30-Jun-16	0	90%	\$1,034,	004 1.78	Project achieved substantial completion. Demolition and abatement of the existing school is underway.	\$34,122,82
Lynn Thurgood Marshall Mid	Middle School	Walsh Brothers, Inc.	\$71,225,244	1,100	Bid	181,847	\$392	\$56,105,148	\$309	CM-at-Risk	27-Jun-14	20-Apr-16	0	100%		\$0 0.00	All construction and site work are now complete except punchlist activities which are ongoing.	\$49,541,56
Milford Woodland	Elementary School	Shawmut Design and Construction	\$48,375,101	985	Bid	132,539	\$365	\$34,861,130	\$263	CM-at-Risk	01-Apr-15	28-Jul-16	0	82%	\$933,	129 1.92	Project achieved substantial completion. Demolition and abatement of the existing school building has occurred and contaminated soil was discovered. New structural fill will replace the contaminated soil. Astro-Turf install will follow the structural fill and final paving and landscaping work will continue.	\$27,418,23
Newton A E Angier	Elementary School	W. T. Rich Company Inc.	\$30,158,875	465	Bid	74,960	\$402	\$19,837,027	\$265	CM-at-Risk	22-Aug-14	04-Jan-16	0	98%	\$215,	458 0.82	The contractor is working to complete remaining punch list items. The wood floor replacement in the gymnasium was complete and the wood flooring replacement in the cafetorium is nearing completion. The playground safety surfacing and plexi-pave are nearing completion.	\$10,687,07
North Reading North Reading High	Junior High School	Gilbane Building Company	\$101,328,353	1,370	Bid	267,939	\$378	\$66,726,592	\$249	CM-at-Risk	01-May-12	21-Aug-15	0	99%	\$3,521,	877 3.47	Punch list items including site work, warranty items, and commissioning closeout items are underway and remain for completion.	\$47,071,88
Pittsfield Taconic High	High School	Gilbane Building Company	\$97,757,373	920	PFA	246,520	\$397	\$56,984,184	\$231	CM-at-Risk	21-Mar-16	29-Jun-18	0	8%		\$0 0.00	Site work continues with excavation for footings and foundation walls. Unsuitable soil materials have been encountered and are removed and replaced with suitable fill and structural fill material. Forming and placing of concrete footings are underway.	\$72,491,19
Southern Worcester Cty VT Bay Path Reg Voc Tech H S	Vocational / Technical	Consigli Construction Company, Inc.	\$57,024,455	1,110	Bid	249,521	\$229	\$41,468,049	\$166	CM-at-Risk	02-Aug-13	01-Sep-15	0	100%	\$4,402,	328 7.77	Phase 10 of a 10-phase project has been completed. Items remaining include minor punch list items, final commissioning and close out.	\$44,420,53
Springfield Elias Brookings	Elementary School	Morganti/Aquadro & Cerruti	\$22,733,394	320	Bid	64,800	\$351	\$18,337,328	\$283	CM-at-Risk	01-Jul-13	12-Feb-15	0	99%	(\$127,9	976) (0.56	Remaining punch list and warranty issues are being addressed. Project team is preparing for closeout.	\$25,563,99
Wilmington Wilmington High	High School	Gilbane Building Company	\$67,558,835	960	Bid	192,443	\$351	\$48,060,314	\$250	CM-at-Risk	30-Apr-13	12-Feb-15	0	98%	\$2,881,	004 4.45	The project is complete with some final punch list and commissioning ongoing.	\$35,674,89
Winchester Winchester High School	High School	Consigli Construction Company, Inc.	\$101,404,577	1,370	Bid	278,925	\$364	\$70,862,283	\$254	CM-at-Risk	23-Apr-14	31-Aug-17	0	82%	\$4,365,	009 4.30	A renovation/addition project, the demolition and abatement of the main classrooms of the building are ongoing. Renovation of the art, science classrooms, technical classrooms and gymnasium have been completed.	\$41,246,37
Winthrop Winthrop Sr High	Junior High School	Gilbane Building Company	\$63,542,179	970	Bid	187,917	\$338	\$49,608,610	\$264	CM-at-Risk	01-Jul-14	30-Jun-16	0	99%	\$939,		Project achieved substantial completion. Miscellaneous punch list items are ongoing.	\$38,996,99
Worcester Nelson Place	Elementary School	Fontaine Brothers, Inc.	\$46,546,300	600	PFA	111,256	\$418	\$29,503,564	\$265	CM-at-Risk	01-Jul-15	01-Jun-17	0	33%		\$0 0.00	Building A and C Classrooms - Interior framing, overhead & in-wall MEP work are ongoing. Building B mechanical area - 10% equipment pads are being poured. Cafeteria and stage concrete have been poured, and ramps will follow. Surface paving is 10% ongoing.	\$33,717,51
Westborough Sarah W Gibbons Middle	Middle School	Gilbane Building Company	\$21,595,600	550	PFA	110,000	\$196	\$12,693,993	\$115	CM-at-Risk	22-Jun-16	25-Aug-17	0	30%		\$0 0.00	Construction of the 5-phase project started late June 2016. Phase 1 includes major overhead mechanical, electrical, plumbing and fire protection work in corridors and select classrooms. Classroom upgrades such as new counter-tops, carpet, paint, lighting and ceiling tiles are ongoing.	\$11,131,08
Waitlist Totals			\$8,965,000				\$139		\$108									\$10,131,80
New Bedford Taylor School at the Sea Lab Marine Science Education Center	N/A	M. O'Connor Contracting, Inc.	\$8,965,000	284	Bid	64,533	\$139	\$6,967,355	\$108	Design/Bid/Build	28-Nov-15	31-Aug-16	0	80%	\$270,	133 3.01	Light fixtures are being installed in classrooms and corridors. Insulation is complete. Cabinets and countertops are complete in 3% all classrooms. Finish carpentry and painting are ongoing. All windows have been installed and are being tested. Site work continues.	\$10,131,80

^{**} Information reported as of OPM reports dated 7/31/2016



Massachusetts School Building Authority

Construction Methods:

Design-Bid-Build (DBB) and Construction Management at Risk (CMR)

Project Data, Construction Costs, and Change Orders by Construction Method

Executive Summary

The Massachusetts School Building Authority (the "MSBA") is a quasi-independent government authority charged with funding capital improvement projects in the Commonwealth's public schools. The MSBA partners with local communities to create affordable, sustainable, and energy efficient schools across Massachusetts. Staff have reviewed major projects funded by the MSBA to further understand trends for the two different construction methods: Design-Bid-Build (Chapter 149) and Construction Manager at Risk (Chapter 149A). The trends include: Utilization (i.e. the construction method chosen by the local community), Construction Cost (i.e. the construction costs at various phases within the life of a project), and Change Orders (the costs of change orders).

This report reviewed 115 Core Projects, defined as major projects with estimated construction budgets ranging from \$5,085,217 to \$104,711,661, and authorized for a project funding agreement by the MSBA Board of Directors between April 2008 and July 2014. As detailed in the attached report, the data indicates the following:

Utilization:

- Of the 115 Core Program projects, 66 projects utilized the Design-Bid-Build method and 49 utilized the Construction Manager at Risk method. (Figure 2)
- With the exception of 2011, the number of Construction Manager at Risk projects per year since 2010 equals or exceeds the number of Design-Bid-Build projects.
- The number of responses submitted by qualified contractors has been consistent for the Construction Manager at Risk method while the number of bids for the Design-Bid-Build method shows a decline beginning in 2011 with less than 4 bidders in 2014 and 2015. (Tables 4 and 5)

Construction Costs per Project Phase:

For the analysis of construction costs, recognizing that no projects are identical, staff focused its review on new construction projects to minimize the variability associated with addition/renovation projects. The following information is based on a review of the 71 new construction projects as a subset of the 115 Core Program projects.

- <u>Schematic Design</u>: Construction budgets for projects utilizing the Construction Manager at Risk method were estimated at approximately \$23 per square foot higher than projects utilizing the Design-Bid-Build method. (Figure 9)
- <u>Guaranteed Maximum Price/Bid</u>: Projects using the Construction Manager at Risk method were approximately \$35 to \$38 per square foot higher than projects utilizing the Design-Bid-Build method. (Figure 10)

Of the 71 new construction projects noted above, 26 of these projects have reached final audit. The following information is based on a review of these 26.

- <u>Final Audit</u>: Projects using the Construction Manager at Risk method were approximately \$33 to \$38 higher than projects utilizing the Design-Bid-Build method. (Figure 16)
- <u>Final Audit</u>: 12 of the 16 (75%) projects utilizing the Design-Bid-Build method had a lower final cost than the construction budget estimated at schematic design. 3 of the 10 (30%) projects utilizing the Construction Manager at Risk method had a lower final cost than the construction budget estimated at schematic design. (Figures 13 and 14)

Change Orders:

For new construction, a comparison of change orders attributed to design issues as a percentage of the bid costs or executed Guaranteed Maximum Price does not differentiate between the construction methods and are commonly between 0% and 2%. (Figure 18)

For addition/renovation, a comparison of change orders attributed to design issues as a percentage of the bid costs or executed Guaranteed Maximum Price reveals little difference between the construction methods. (Figure 20)

During the initial design phases of a project, the MSBA looks to a district and its consultants to evaluate and determine the most appropriate construction method for the proposed project. If the estimated contract cost is \$5 million or greater, the district can select between the Design-Bid-Build and Construction Manager at Risk construction delivery methods. The selection process for the construction method includes an evaluation of many factors including the condition of the existing building and site, project complexity, the district's academic calendar, and the project budget. The MSBA will continue to look to the districts and their consultants to properly evaluate and determine the most appropriate construction method for the proposed project. The MSBA staff will continue to update and publish the information in this report so that each district may utilize the information in its decision process.

Table of Contents

l.	A	bstractbstract	1
II.	lr	ntroduction	1
III.	С	ore Program and its Projects	2
IV.	U	tilization of Construction Delivery Methods: Design-Bid-Build & Construction Manager at Risk	5
Α		Rate of Utilization	5
В		Utilization by Project Scope	7
С	•	Utilization by School Type	8
D	١.	Utilization by Contracting Firm	9
Ε		Bid Activity	. 11
V.	С	onstruction Costs per Project Phase	. 13
Α		Development of Construction Contract Cost	. 13
В		Comparison of Estimated Construction Costs and Construction Contracts	. 14
С	•	Comparison of Costs at Final Audit	. 18
VI.	С	omparison of Change Orders	. 22
Α	٠.	Comparison of Change Orders for New Construction Projects	. 23
В		Comparison of Change Orders for Addition/Renovation Projects	. 24
VII.	S	ummary	. 27

I. Abstract

In developing this report, MSBA staff intend to:

- Evaluate the procurement type, as well as scope, of Core Program projects authorized for a Project Funding Agreement ("PFA") between April 2008 and July 2014 by the Massachusetts School Building Authority ("MSBA") and Massachusetts School Districts.
- Investigate potential trends within the identified project characteristics including the construction method utilization, project scope, school type, and participating contractors.
- Compare the construction costs at schematic design, bid results, and final audit for Design-Bid-Build ("DBB") and Construction Manager at Risk ("CMR") projects.
- Compare the costs of project change orders for Design-Bid-Build and Construction Manager at Risk projects focusing on both total costs and design related costs.

II. Introduction

The MSBA is a quasi-independent government authority charged with funding capital improvement projects in the Commonwealth's public schools. The MSBA partners with local communities to create affordable, sustainable, and energy efficient schools across Massachusetts.

The MSBA, which has a dedicated revenue stream of one penny of the state's 6.25-percent sales tax, collaborates with municipalities to equitably invest in schools across the Commonwealth by finding the right-sized, most fiscally responsible and educationally appropriate solutions to create safe, sound, and sustainable learning environments.

When seeking collaboration from the MSBA, a Massachusetts school district files a Statement of Interest informing the MSBA of its schools' conditions and needs. If a district wishes to study the potential of a major repair, renovation, addition, or new building, the district's Statement of Interest is considered for invitation to the MSBA's Core Program. If invited, a district goes through the process of procuring an Owner's Project Manager and Designer. With its consultants, the district studies potential solutions to its building needs. Once the final solution is identified by the district and approved by the MSBA, the district appropriates funding for the project and executes a Project Funding Agreement with the MSBA. The Project Funding Agreement memorializes the scope, budget, and schedule developed by the district and establishes the reimbursement rate by which the district will receive funding from the MSBA.

During the feasibility study and schematic design phases of a Core Program project, the district, with the guidance of its Owner's Project Manager and Designer, considers the construction method to complete its school project. If the estimated contract cost is \$5 million or more, the district can select between Design-Bid-Build and Construction Manager at Risk. Similar to studying the potential of a major repair, renovation, addition, or new building, the selection process for the construction method includes an evaluation of many factors. These factors can include the condition of the existing building and site, project complexity, the district's academic calendar, and the project budget. The MSBA looks to a district and its consultants to evaluate

and determine the most appropriate construction method for the proposed project. The MSBA provisionally includes one incentive point should a district choose the Construction Manager at Risk construction delivery method, subject to the district receiving approval from the Office of the Inspector General to utilize this method. The incentive point was instituted to encourage districts to consider Construction Manager at Risk, newly established through Massachusetts General Law Chapter 149A in 2004, and to spur new contractors to participate in the public school building industry. The incentive point is added to the base rate of MSBA reimbursement.

III. Core Program and its Projects

Beginning in November 2007, the MSBA Board of Directors began approving the invitation of school projects to its Core Program. Based upon districts' level of readiness to proceed into design and construction, school projects began receiving authorization to execute a Project Funding Agreement from the MSBA's Board of Directors in April 2008. Since April 2008, 125 Core Program projects have received authorization to execute a Project Funding Agreement and have executed (or are about to execute) a Project Funding Agreement Bid Amendment to reflect their construction contracts within their project budgets.

The following charts have been developed to illustrate the history of project invitations to the Core Program. Core Program projects are categorized by the MSBA into the following scope options: Repair, Renovation, Addition/Renovation, New Construction, and New Construction – Model School. The Model School Program seeks to effectively adapt and re-use the design of successful, recently constructed elementary, middle, and high schools. Districts participating in the Model School Program are eligible to receive five additional incentive points which are added to the base rate of MSBA reimbursement.

Figure 1 illustrates the 125 projects authorized for Project Funding Agreements by year between April 2008 and July 2014. The projects are further identified by the project scope.

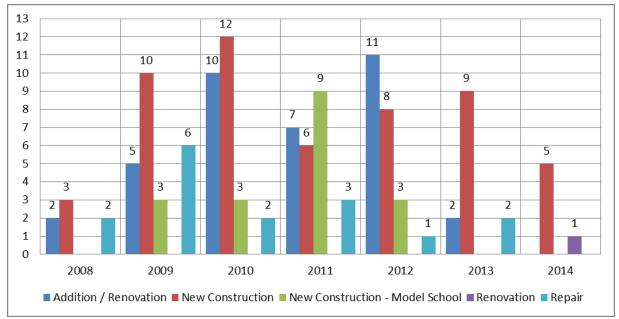


Figure 1

In reviewing Figure 1, the following can be observed:

- The year with the most projects is 2010.
- Implementation of the Model School Program can most notably be seen in the project totals in 2011.
- Project totals in 2014 are a partial representation of the year's activity due to the reporting criteria's timeline through July 2014.

For purposes of this report, projects with estimated construction costs of less than \$5 million have been removed from the data, as they cannot be considered for Construction Manager at Risk, which reduces the number of projects in the data set from 125 to 115. The ten projects excluded from this analysis include three Addition/Renovation projects and seven Repair projects.

Separating the 115 Core Program projects by construction method, the MSBA entered a Project Funding Agreement with 66 Design-Bid-Build projects and 49 Construction Manager at Risk projects (See Figure 2).

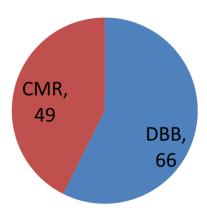
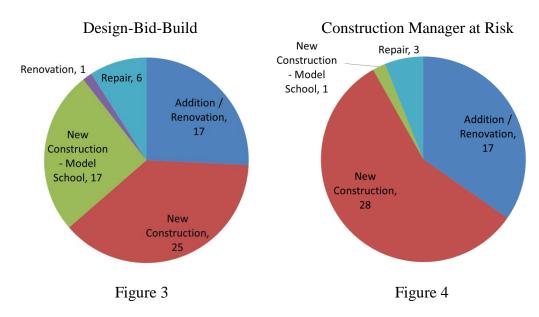


Figure 2

Figure 3 illustrates the 66 Design-Bid-Build projects separately by their project scope and Figure 4 represents a similar breakdown of the 49 Construction Manager at Risk projects.



In reviewing Figures 3 and 4, it can be further noted that 17 of the 18 Model School projects utilized Design-Bid-Build. The one Construction Manager at Risk Model School project was authorized for a Project Funding Agreement in 2011.

While both delivery methods have been used for the 17 Addition/Renovation projects, the totals represent a higher percentage for Construction Manager at Risk projects (35%, 17 of 49) than Design-Bid-Build projects (26%, 17 of 66). Meanwhile, 59% (29 of 49) of Construction

Manager at Risk projects and 64% (42 of 66) of Design-Bid-Build projects were new construction, either New Construction or New Construction - Model School.

IV. Utilization of Construction Delivery Methods: Design-Bid-Build & Construction Manager at Risk

To evaluate the application of the construction delivery methods, trends must be considered within the rate of utilization, the project scope, the school type, and the pool of contractors.

A. Rate of Utilization

In October, 2009, the Office of the Inspector General issued "Experience of Massachusetts Public Agencies with Construction Management at Risk Under M.G.L. c. 149A." Following legislative approval of Massachusetts General Law Chapter 149A in 2004, the Office of the Inspector General reported that prior to August 2008 the number of school projects with approval to use the Construction Manager at Risk construction method was seven, including one public charter school.

Since 2008, districts and their consultants have become more familiar with Construction Manager at Risk. The familiarity in the construction method has led to an increase in districts using Construction Manager at Risk. Our analysis shows that the number of school projects using the Construction Manager at Risk method now matches the number of projects using the Design-Bid-Build method for qualifying projects. The consistent utilization of the Construction Manager at Risk construction method has led to changes in the number of contractors pursuing Construction Manager at Risk projects.

Figure 5 illustrates the 115 projects with estimated construction costs of more than \$5 million authorized for Project Funding Agreements between April 2008 and July 2014. The projects are further identified by their construction method.

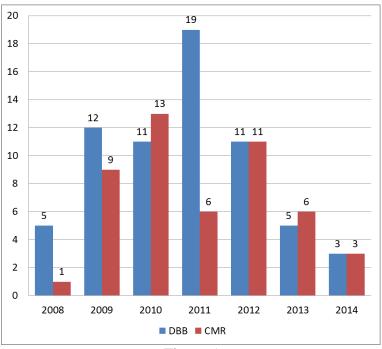


Figure 5

With the exception of 2011, the number of Construction Manager at Risk projects per year since 2010 equals or exceeds the number of Design-Bid-Build projects. Utilization of construction methods in 2011 is affected by the approval of a Project Funding Agreement for nine Model School projects using the Design-Bid-Build method. Figure 5 illustrates that school districts have and continue to consider the Construction Manager at Risk construction method when completing their projects.

B. Utilization by Project Scope

Figure 6 illustrates the number of Design-Bid-Build and Construction Manager at Risk projects with estimated construction costs of more than \$5 million. The projects are separated by project scope as well as the year in which they were authorized for a Project Funding Agreement.

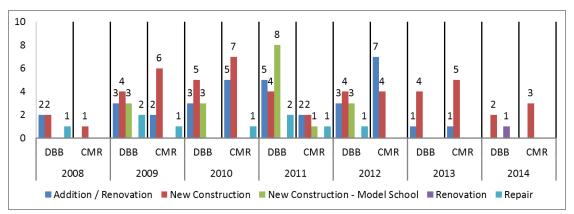


Figure 6

Figure 7 shows only the Design-Bid-Build projects by project type and year.



Figure 7

Figure 8 shows only the Construction Manager at Risk projects by project type and year.



Figure 8

Similar to Figure 5, Figures 7 and 8 illustrate that the total number of projects using each construction method is similar year to year. The two Figures also further reflect the ratio of Addition/Renovation projects using Construction Manager at Risk (35%, 17 of 49) projects is slightly higher than the ratio of Addition/Renovation projects using Design-Bid-Build (26%, 17 of 66) projects.

C. Utilization by School Type

Table 1 shows the distribution of Design-Bid-Build projects among the project scopes and school types.

Project Scope	High School	Middle/High School	Middle School	Elementary School	Total
New Construction	5	2	4	14	25
Model School	11	0	2	4	17
Addition/Renovation	6	1	2	8	17
Renovation	0	1	0	0	1
Repair	2	0	2	2	6
Total	24	4	10	28	66

Table 1

Table 2 shows the distribution of Construction Manager at Risk projects among the same project scopes and school types.

Project Scope	High School	Middle/High School	Middle School	Elementary School	Total
New Construction	10	3	5	10	28
Model School	0	1	0	0	1
Addition/Renovation	8	2	4	3	17
Renovation	0	0	0	0	0
Repair	0	0	2	1	3
Total	18	6	11	14	49

Table 2

The largest difference in projects between the delivery methods is found in Elementary School construction for which 28 of 42 (67%) projects utilized Design-Bid Build. If the High School and Middle/High School data sets are combined, 28 of 52 (54%) projects utilized Design-Bid-Build. Of note, 52 projects do include twelve New Construction - Model School projects of which eleven utilized Design-Bid-Build. The construction methods were used at approximately the same rate for Middle School construction.

D. Utilization by Contracting Firm

When evaluating the number of Design-Bid-Build and Construction Manager at Risk projects, it is also important to understand how many contractors are performing the work. By encouraging districts to consider Construction Manager at Risk, the MSBA incentive point was intended to spur new contractors to participate in the public school building industry. As previously noted, the 115 projects with estimated construction costs of more than \$5 million include 66 Design-Bid-Build projects and 49 Construction Manager at Risk projects. The 66 Design-Bid-Build projects were awarded to 19 contractors and the 49 Construction Manager at Risk projects were awarded to 13 contractors. Three contractors were awarded at least one project from both construction methods.

	Design-Bid-Build	Construction Manager at Risk
Total Projects	66	49
Awarded Contractors	19	13
Contractors with Two or More Projects	10 (53% of contractors)	8 (62% of contractors)
Projects Awarded to Two Most Active Contractors	32 (48% of projects)	23 (47% of projects)

Table 3

Table 3 illustrates that many contractors have had success obtaining a second public school project regardless of the construction method. Table 3 also shows that the two most active contractors for their respective construction methods have obtained similar percentages of the total projects.

Focusing on the 66 Design-Bid-Build projects, Table 4 illustrates the number of projects awarded to the 19 Design-Bid-Build contractors based upon the year that bids were received.

Contractor	2008	2009	2010	2011	2012	2013	2014	2015	Total
CTA Construction Co., Inc.	1	2	4	2	3	6	1	1	20
Agostini Construction Co.,		1				1			2
Inc.		1				1			2
Callahan, Inc.		1							1
Colantonio, Inc. New									
England Builders &		1							1
Contractors, Inc. R.M.		_							_
Technologies, Inc.									
Groom Construction Co., Inc.		1							1
Bacon Construction Co, Inc.			1						1
Brait Builders Corp.			1	1	3	1		1	7
Fontaine Brothers, Inc.			3	3	1	2	3		12
G & R Construction, Inc.			1		2				3
J & J Contractors, Inc.			1	1					2
P.J. Stella Construction Corp.			1						1
Bacon-Agostini Construction				1	2		1	1	5
Joint Venture				1	2		1	1	5
H.V. Collins Co., Inc.				1	1				2
Nauset Construction				1					1
Corporation				1					1
Colantonio, Inc.					1				1
Enfield Builders, Inc.						1			1
PDS Engineering and						2	1		3
Construction, Inc.							1		3
J.J. Cardosi, Inc.							1		1
L.D. Russo, Inc.								1	1
Total	1	6	12	10	13	13	7	4	66

Table 4

Additional observations can be made for Table 4:

- Of the 19 contractors, 15 performed on three or fewer projects.
- The most projects awarded to one contractor in a given year between 2008 and 2014 are 6 in 2013.
- The pool of Design-Bid-Build projects continued to grow with at least one new contractor each year.

Table 5 illustrates the number of projects awarded to the 13 Construction Manager at Risk contractors based upon the year of Guaranteed Maximum Price execution.

Contractor	2010	2011	2012	2013	2014	2015	Total
Consigli Construction Company, Inc.	2	3	3	2	2		12
Gilbane Building Company	2	5		3		1	11
Shawmut Design and Construction	1	1		3	1	2	8
Skanska USA Building, Inc.	1			1			2
Turner Construction Company	1			1			2
Agostini Construction Co., Inc.		1					1
CTA Construction Co., Inc.		1					1
Dimeo Construction Company		1	1				2
W. T. Rich Company Inc.		1	2			2	5
Morganti/Aquadro & Cerruti			1	1			2
Bond Brothers, Inc.				1			1
Fontaine Brothers, Inc.					1		1
Walsh Brothers, Inc.					1		1
Total	7	13	7	12	5	5	49

Table 5

Additional observations can be made for Table 5:

- Of the 13 contractors, 9 performed on three or fewer projects.
- The most projects awarded to one contractor in a given year between 2010 and 2015 are 5 in 2011.
- Prior to 2015, the pool of Construction Manager at Risk projects continued to grow with at least one new contractor each year.

E. Bid Activity

To further assess trends in contractor participation, MSBA staff collected bid data from the 115 projects. To collect contractor information for each school, MSBA staff requested project participants to identify the applicable contractors for the following categories:

- Request for Qualifications ("RFQ") Information Requests (Construction Manager at Risk only)
- Request for Qualifications Responses (Construction Manager at Risk only)
- Qualified Contractors
- Request for Proposals ("RFP") Responses/Bids Submitted

The effort resulted in bid data for 64 of the 66 Design-Bid-Build projects. Table 6 identifies the average number of contractors qualified to bid on the individual projects as well as the average number of contractors who submitted bids. Table 6 separates the data set by bid year.

GMP Executed (Year)	Total Projects	Qualified Contractors	Bids Submitted
2008	1	9	6
2009	6	9.3	5.8
2010	12	8.7	6.2
2011	10	7.4	5.8
2012	13	7.8	5.5
2013	13	6.8	4.2
2014	6	5.8	3.5
2015	3	3.7	3.0

Table 6

Table 6 shows a decline in the number of Design-Bid-Build contractors qualified for bidding since 2009. The number of bids submitted for Design-Bid-Build projects also shows a decline beginning in 2011. For each of the three 2015 projects, three bids were submitted.

Bid data was collected for 47 of the 49 Construction Manager at Risk projects. Table 7 identifies the average number of contractors for each of the four pursued categories with projects compared within the same year based upon Guaranteed Maximum Price execution.

GMP Executed (Year)	Total Projects	RFQ - Information Requests	RFQ Responses	Qualified Contractors	RFP Responses
2010	7	11.7	9.6	5.6	5.1
2011	12	11.7	8.8	5.2	4.6
2012	7	8.1	6.7	5.3	4.3
2013	11	6.8	6.5	5.2	4.1
2014	5	7.0	7.0	5.6	5.2
2015	5	6.6	6.6	4.8	4.0

Table 7

By 2012, Table 7 shows that Districts were able to expect close to seven Request for Qualifications responses when seeking qualified Construction Manager at Risk contractors. The results of the qualification process then lead to an annual average of 4.0 to 5.2 Construction Manager at Risk contractors submitting proposals for consideration.

V. Construction Costs per Project Phase

To better understand the cost of school construction, projects must be compared at each budgetary phase: the estimated construction costs at schematic design, contract costs at bid or Guaranteed Maximum Price, and final grants received for Construction Manager at Risk and Design-Bid-Build projects. Recognizing that no projects are identical, MSBA staff separate projects identified as new construction, either New Construction or New Construction – Model School, from the other scope options when comparing projects by cost. MSBA staff compare projects on a basis of square foot cost.

A. Development of Construction Contract Cost

As a project proceeds through the Core Program, the MSBA memorializes the budget with the execution and amendment of a Project Funding Agreement and finally with the development of a Final Audit Report. The project budget captured in the Project Funding Agreement reflects the district's estimated construction cost from its Schematic Design. The Project Funding Agreement Bid Amendment budget replicates or reconciles the baseline construction contract, which is further detailed by a Schedule of Values. The Schedule of Values is a detailed statement identifying payment due to the contractor upon completion of the scope of work. The Final Audit Report determines the final costs including the total of change orders.

When selecting or administrating a construction method, it is important to understand the differences in the construction contracts. In a Design-Bid-Build project, the lowest responsible and eligible bidder is awarded the project's contract at the price of the bid. The final cost of a Design-Bid-Build project is the awarded Contract Price plus any Change Orders executed between the contractor and Owner that add or reduce project scope and price.

When Construction Manager at Risk is the utilized construction method, the Contract Price will be the sum of the Construction Manager at Risk's Cost to Construct the Work plus its General Conditions (Construction Costs that are incurred by the Construction Manager at Risk that are not incorporated into the Project) and a negotiated Construction Manager at Risk Fee, as compensation. Under GL c. 149A, when a Design is at least 60% complete, the Owner and the Construction Manager at Risk will agree upon a Guaranteed Maximum Price as a cap to the Contract Price. Once the Guaranteed Maximum Price is established, the Construction Manager at Risk will ultimately be paid the lesser of the Contract Price or the Guaranteed Maximum Price. The final cost of a Construction Manager at Risk project may be impacted by any Change Orders executed between the Construction Manager at Risk and Owner that add or reduce project scope and price with the Guaranteed Maximum Price and the Project Budget adjusted, accordingly.

Specific to Construction Manager at Risk projects, a portion of the Construction Cost Budget at Guaranteed Maximum Price execution will include a Guaranteed Maximum Price contingency which the Construction Manager at Risk and the Owner can use to fund unanticipated construction costs that are not caused by a Change in the Project Scope. Upon the completion of

a Construction Manager at Risk project, any portion of the Guaranteed Maximum Price contingency that is not utilized will not be included in the calculation of the Contract Price.

B. Comparison of Estimated Construction Costs and Construction Contracts

With its Schematic Design, a district informs the MSBA of its intended scope, budget, and schedule. The Project Funding Agreement construction budget provided by the district is a reconciliation of the construction cost estimates produced by its Designer and Owner's Project Manager based on its Schematic Design. If the Construction Manager at Risk is under contract during the Schematic Design, the Construction Manager at Risk will perform a cost estimate for reconciliation as well. The Designer is responsible for completing the project's design within the Project Funding Agreement construction budget.

Upon receipt of the project's Schedule of Values, MSBA staff compare the Project Funding Agreement construction budget from Schematic Design to the baseline construction contract at bid or Guaranteed Maximum Price execution. For projects where the baseline construction contract exceeds the Project Funding Agreement construction budget, the difference in cost is ineligible for reimbursement by the MSBA.

Recognizing that there are many cost variations among all projects including design and site costs, addition/renovation projects have the most substantial variations. For the purpose of this review, staff will be comparing new construction projects. Within the 115 projects with estimated construction costs of more than \$5 million, 71 projects are new construction. As reflected in Figures 2, the 71 projects include 42 Design-Bid-Build projects and 29 Construction Manager at Risk projects.

Figure 9 illustrates a comparison of estimated construction costs at Schematic Design as reflected in the Project Funding Agreement of each of the 71 projects. The estimated construction cost of a project includes alternates incorporated into the project's total budget. For Construction Manager at Risk projects, the estimated construction cost also includes the contractor's pre-construction services. Each estimated cost is identified in time by the date on which the project was authorized for a Project Funding Agreement.

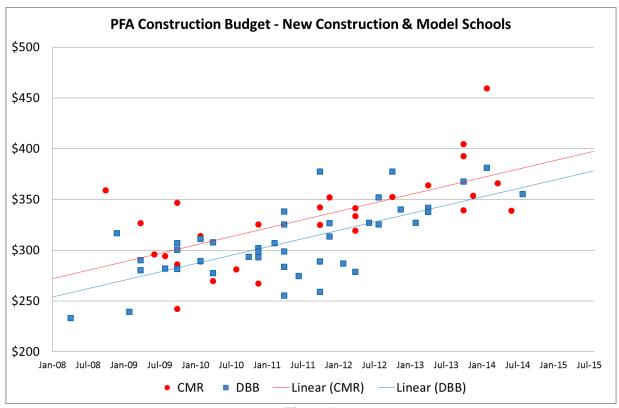


Figure 9

To assist the analysis of Figure 9, a linear trend line has been added for both Design-Bid-Build and Construction Manager at Risk projects. The linear trend lines reflect an approximate \$23 per square foot difference between estimated construction costs of Design-Bid-Build and Construction Manager at Risk projects.

Figure 10 illustrates the next budgetary phase of the 71 projects. Figure 10 presents each construction contract as established in the Project Funding Agreement Amendment based on bid price or executed Guaranteed Maximum Price. Each construction contract is identified in time by the contractor bid date for Design-Bid-Build projects or the Guaranteed Maximum Price execution date for Construction Manager at Risk projects.

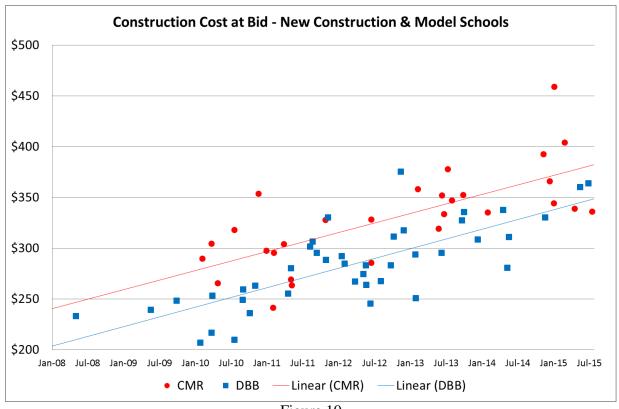


Figure 10

Similar to Figure 9, a linear trend line has been added in Figure 10 for both Design-Bid-Build and Construction Manager at Risk projects. While the delta between the trend lines is greater in Figure 10 than in Figure 9, the delta narrows slightly over time. The linear trend lines begin in January 2008 at an approximate \$38 per square foot difference and end in July 2015 at an approximate \$35 per square foot difference.

The same cost data can also be isolated for each construction method. Figure 11 displays the estimated construction budget and the construction contract of each Design-Bid-Build project. For each project, the estimated construction budget and the construction contract are identified in time by the contractor bid date.

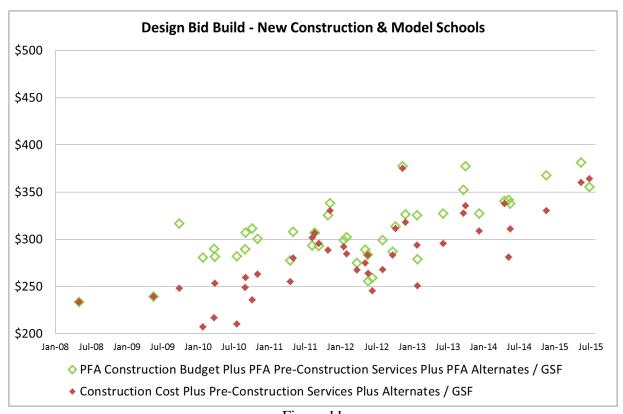


Figure 11

In Figure 11, the Project Funding Agreement Amendment construction contract for 38 of 42 (90%) Design-Bid-Build projects is less than the Project Funding Agreement estimated construction budget.

Correspondingly, Figure 12 displays the estimated construction budget and the construction contract of each Construction Manager at Risk project. For each project, the estimated construction budget and the construction contract are identified in time by the Guaranteed Maximum Price execution date.

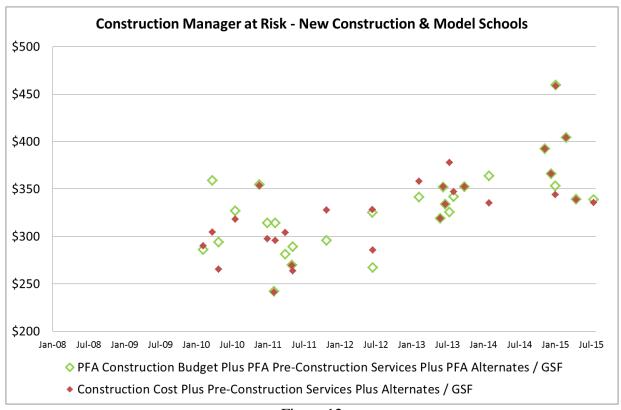


Figure 12

In Figure 12, the Project Funding Agreement Amendment construction contract for 20 of 29 (69%) Construction Manager at Risk projects is less than the Project Funding Agreement estimated construction budget.

C. Comparison of Costs at Final Audit

Once a district has submitted its final request for reimbursement from the MSBA, MSBA staff draft the district's Final Audit Report. The Final Audit Report reflects the total construction cost including change orders, which can be compared to the estimated construction cost as well as the Design-Bid-Build bid price or Construction Manager at Risk executed Guaranteed Maximum Price. Historically, the amounts can vary widely from project to project.

MSBA staff draft a project's Final Audit Report after the commissioning of the project and closeout of its contracts. Typically, the closeout phase requires two to three years following substantial completion of the new building. For the 71 new construction projects with estimated construction costs of more than \$5 million, 26 projects have reached the Final Audit phase. The 26 projects include 16 Design-Bid-Build projects and ten Construction Manager at Risk projects.

Staff have compared these projects but note that conclusions are difficult to draw as this is a limited data set.

Figure 13 illustrates a comparison of Project Funding Agreement construction budgets, baseline construction contracts, and Final Audit Report costs for the 16 Design-Bid-Build projects. The costs from the Final Audit Reports are provided with and without change order costs. Since Design-Bid-Build contracts do not include pre-construction services, no additional budget or cost is included in the totals presented in Figure 13. Each project is identified in time by the contractor bid date.

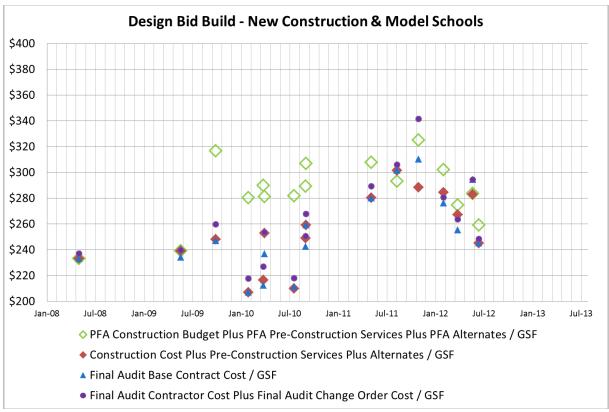


Figure 13

In Figure 13, the data shows that districts which bid between July 2009 and July 2010 completed projects with larger cost savings. After July 2010, the bid and final costs are closer to the original estimated budgets. Including change order cost, the final cost of twelve of the 16 (75%) Design-Bid-Build projects is less than the estimated budget. 14 Design-Bid-Build projects (88%) remain within their estimated budget if change order cost is not included.

For the ten Construction Manager at Risk projects, Figure 14 presents a comparison of Project Funding Agreement construction budgets, baseline construction contracts, and Final Audit Report costs. The costs from the Final Audit Reports are provided with and without change order costs. Each project is identified in time by the Guaranteed Maximum Price execution date.

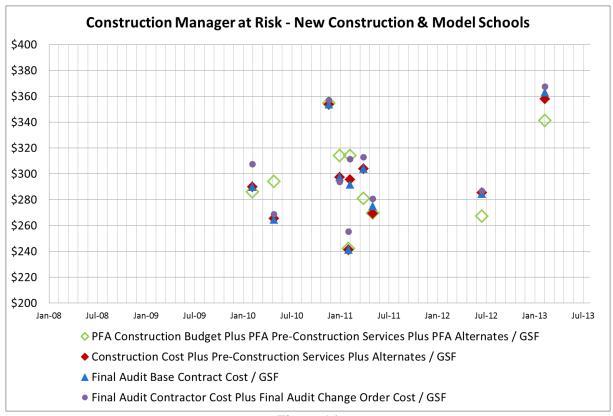


Figure 14

Similar to the Design-Bid-Build projects bid after July 2010, the bid and final costs for the Construction Manager at Risk projects are close to the original estimate budgets. Including change order cost, the final cost of three of the ten (30%) Construction Manager at Risk projects is less than the estimated budget. Five Construction Manager at Risk projects (50%) remain within their estimated budget if change order cost is not considered.

To continue the analysis of construction costs from the Final Audit Reports, the costs from the construction methods can be compared to each other. In Figure 15, the final construction costs without change orders are displayed.

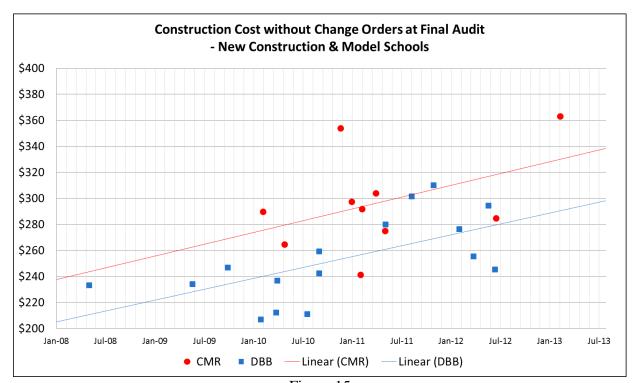


Figure 15

Similar to previous figures, a linear trend line has been added for both Design-Bid-Build and Construction Manager at Risk projects. The linear trend lines begin in January 2008 at an approximate \$32 per square foot difference and end in July 2015 at an approximate \$40 per square foot difference.

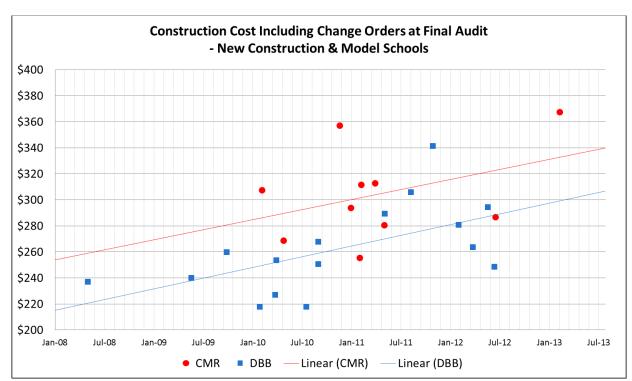


Figure 16 reflects the same final construction costs but also includes the final change order costs.

Figure 16

In Figure 16, the linear trend lines begin in January 2008 at an approximate \$38 per square foot difference and end in July 2015 at an approximate \$33 per square foot difference.

With a small sample size, MSBA staff will continue to monitor final costs of Construction Manager at Risk projects as more Final Audit Reports can be completed.

VI. Comparison of Change Orders

When evaluating the magnitude of change orders, it is important to consider the cause of any contract change. Prior to determining the eligibility of change orders, the MSBA requests districts with assistance from their Owner Project Managers to identify the reason for change orders. Owner Project Managers can select from four categories: Design Issue, New Scope Directed by Owner, Differing Conditions, and New Scope Directed by Third Party. For the purposes of comparing the two construction methods, the category of Design Issue will be further investigated. By comparing only change order costs identified as design issues, the variability of unforeseen differing conditions and added Owner and/or third party directed scope is removed.

For the change order analysis, staff included in their review projects that have reached 90% physical progress. It is assumed that the majority of change orders may have been executed; however, this analysis would need to be updated at Final Audit.

A. Comparison of Change Orders for New Construction Projects

From the 71 new construction projects, staff are reviewing 51 projects that reached 90% physical progress. The collection includes 33 Design-Bid-Build projects and 18 Construction Manager at Risk projects. Each project is identified in time by the contractor bid date or the Guaranteed Maximum Price execution date.

Figure 17 illustrates percentages of total change orders. For Design-Bid-Build projects, the graph compares the total change order cost to the bid cost. For Construction Manager at Risk projects, the graph compares the total change order cost to the executed Guaranteed Maximum Price. A percentage less than zero represents a project for which the total value of executed change orders is a credit to the Owner.

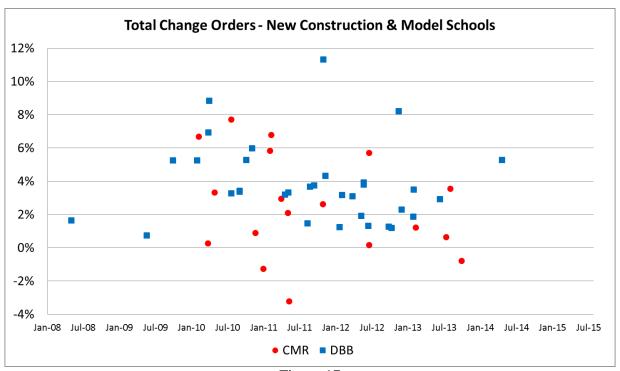


Figure 17

As shown in Figure 17, the total value of change orders can vary amongst projects. For Construction Manager at Risk projects, when the final cost of the work included in the original Guaranteed Maximum Price is less than the original Guaranteed Maximum Price, most contractors and Owners memorialize the cost savings by executing a credit change order. Consequently, even though a project may have had added work and additional costs, if the credit change order exceeds the added cost, a Construction Manager at Risk contract may close with a final price less than the original Guaranteed Maximum Price. The resulting change order percentage is less than zero.

Design Issue Change Orders - New Construction & Model Schools

12%

10%

8%

6%

4%

2%

-2%

Jan-08 Jul-08 Jan-09 Jul-09 Jan-10 Jul-10 Jan-11 Jul-11 Jan-12 Jul-12 Jan-13 Jul-13 Jan-14 Jul-14 Jan-15 Jul-15

Figure 18 reflects the percentages of design issue change orders for the same 51 projects.

Figure 18

CMR DBB

Similar to Figure 17, the percentages in Figure 18 do not differentiate between the construction methods. However, the values and range of percentages for design issue change orders, commonly between 0% and 2%, are smaller and narrower than the percentages for total change orders.

B. Comparison of Change Orders for Addition/Renovation Projects

From the 115 construction projects with estimated construction costs of more than \$5 million, 34 are Addition/Renovation projects. From the 34 Addition/Renovation projects, staff are reviewing 26 projects that reached 90% physical progress. The collection includes twelve Design-Bid-Build projects and 14 Construction Manager at Risk projects. Each project is identified in time by the contractor bid date or the Guaranteed Maximum Price execution date.

Figure 19 illustrates percentages of total change orders. For Design-Bid-Build projects, the graph compares the total change order cost to the bid cost. For Construction Manager at Risk projects, the graph compares the total change order cost to the executed Guaranteed Maximum Price.

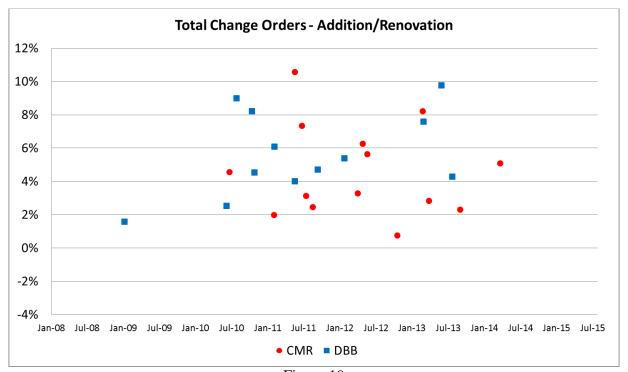


Figure 19

Figure 20 reflects the percentages of design issue change orders for the same twelve Design-Bid-Build and 14 Construction Manager at Risk projects. Similar to Figure 18, the variability of unforeseen differing conditions and added Owner and/or third party directed scope is removed.

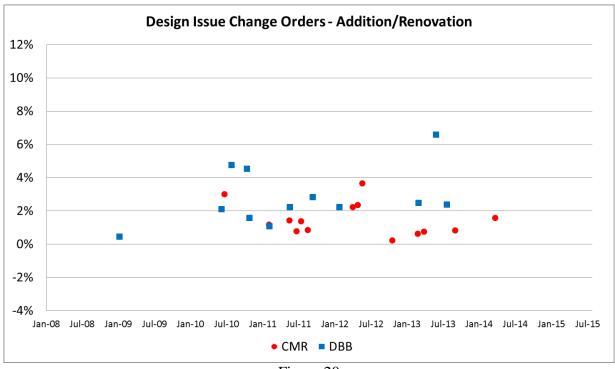


Figure 20

By comparison, the change order totals between the construction methods reveal little difference. Like new construction, the Addition/Renovation projects have variability in their change order totals with the range of percentages for design issue change orders narrower than the percentages for total change orders.

VII. Summary

In developing this report, MSBA staff note the following:

Process Overview:

• The MSBA looks to a district and its consultants to evaluate and determine the most appropriate construction method for a proposed project.

Core Program and its Projects

- Separating the 115 Core Program projects in the data set by construction method, the MSBA entered into a Project Funding Agreement for 66 Design-Bid-Build projects and 49 Construction Manager at Risk projects (See Figure 2);
- 59% (29 of 49) of Construction Manager at Risk projects and 64% (42 of 66) of Design-Bid-Build projects were new construction, either New Construction or New Construction Model School; and
- While both delivery methods have been used for 17 Addition/Renovation projects, the totals represent a higher percentage of Construction Manager at Risk projects (35%, 17 of 49) than Design-Bid-Build projects (26%, 17 of 66).

Utilization

- With the exception of 2011, the number of Construction Manager at Risk projects per year since 2010 equals or exceeds the number of Design-Bid-Build projects;
- The 66 Design-Bid-Build projects were awarded to 19 contractors and the 49 Construction Manager at Risk projects were awarded to 13 contractors;
- Table 4 shows a decline in the number of Design-Bid-Build contractors qualified for bidding since 2009. The number of bids submitted for Design-Bid-Build projects also shows a decline beginning in 2011. For each of the three 2015 projects, three bids were submitted; and
- By 2012, Table 5 shows that Districts were able to expect close to seven Request for Qualifications responses when seeking qualified Construction Manager at Risk contractors. The results of the qualification process then led to an annual average of 4.0 to 5.2 Construction Manager at Risk contractors submitting proposals for consideration.

Construction Costs per Project Phase

- <u>Schematic Design Estimate</u>: Linear trend lines for estimated construction costs of both Design-Bid-Build and Construction Manager at Risk projects reflect an approximate \$23 per square foot difference between Design-Bid-Build and Construction Manager at Risk projects. (See Figure 9)
- <u>Bid Result</u>: When evaluating construction cost as established in the Project Funding Agreement Amendment based on bid price or executed Guaranteed Maximum Price, the

- linear trend lines begin in January 2008 at an approximate \$38 per square foot difference and end in July 2015 at an approximate \$35 per square foot difference. (See Figure 10)
- <u>Final Audit</u>: Evaluating the 26 projects which have reached the Final Audit phase, including change order cost, the final cost of twelve of the 16 (75%) Design-Bid-Build projects and three of the ten (30%) Construction Manager at Risk projects was less than the estimated budget. 14 Design-Bid-Build projects (88%) and five Construction Manager at Risk projects (50%) remain within their estimated budget if change order cost is not considered. (See Figures 13 and 14).

Change Orders per Construction Method and Project Type

- Comparing new construction projects by design issue change orders as a percentage of the bid cost or executed Guaranteed Maximum Price, the percentages for projects do not differentiate between the construction methods and are commonly between 0% and 2%. (See Figure 18)
- Like new construction, a comparison of design issue change orders for Addition/Renovation projects reveal little difference between the construction methods. (See Figure 20)