

## PROJECT MINUTES

Project: New Peebles Elementary School Project No.: 15041  
 Prepared by: Joel Seeley Meeting Date: 9/28/2017  
 Re: School Building Committee Meeting Meeting No: 48  
 Location: Veterans Memorial Community Center Time: 6:30pm  
 Distribution: School Building Committee Members, Attendees (MF)

## Attendees:

PRESENT	NAME	AFFILIATION	VOTING MEMBER
✓	James L. Potter	Chairman, School Building Committee	<b>Voting Member</b>
✓	Peter J. Meier	Board of Selectmen	<b>Voting Member</b>
	Christopher Hyldburg	School Committee	<b>Voting Member</b>
✓	Natasha Scarpato	Member at Large	<b>Voting Member</b>
✓	Donna Buckley	Member at Large	<b>Voting Member</b>
	Richard A. Lavoie	Finance Committee	<b>Voting Member</b>
✓	William Meier	Building Trade Expert	<b>Voting Member</b>
✓	Erika Fitzpatrick	School Committee	<b>Voting Member</b>
✓	Frederick H. Howe	Member at Large, Vice-Chairman School Building Committee	<b>Voting Member</b>
✓	Steven M. Lamarche	Superintendent of Schools, BPS	<b>Voting Member</b>
	Jordan Geist	Director of Business Services, BPS	Non-Voting Member
	Thomas M. Guerino	Town Administrator	Non-Voting Member
✓	Paul O'Keefe	Local Official Responsible for Building Maintenance	Non-Voting Member
	Elizabeth A. Carpenito	Principal, BES	Non-Voting Member
✓	Kathy Anderson	Elementary/Special Education Secretary	Non-Voting Member
✓	Janey Norton	Principal, PES	
✓	Kent Kovacs	FAI, Architect	
	Mike Cimorelli	FAI, Architect	
✓	Bill Beatrice	FAI, Architect	
✓	Joel Seeley	SMMA, OPM	

Item #	Action	Discussion
48.1	Record	Call to Order, 6:45 PM, meeting opened.
48.2	Record	A motion was made by F. Howe and seconded by P. Meier to approve the 9/14/2017 School Building Committee meeting minutes. No discussion, motion passed unanimous by those attending, one abstention.
48.3	Record	J. Seeley reviewed FAI Amendment No. 13, dated 9/28/2017 for LEED Design Review by USGBC in the amount of \$4,397.00, attached.  A motion was made by P. Meier and seconded by F. Howe to approve FAI Amendment No. 13, dated 9/28/2017 and recommend signature by T. Guerino. No discussion, motion passed unanimous.
48.4	Record	K. Kovacs indicated that the Educational Leadership Team (Interiors Working Group) met to discuss if local artists are to provide murals for the project and determined that display areas for student art work are to be provided in the project. In the future, and not as part of the project, if local artists are invited to provide murals, wall space would be identified then.  A motion was made by P. Meier and seconded by F. Howe to not engage local artists and if engaged, not until the project is completed. No discussion, motion passed unanimous.
48.5	Record	K. Kovacs distributed and reviewed the meeting minutes from the 8/17/2017 Bourne Fire Department Meeting, attached.
48.6	Record	K. Kovacs distributed and reviewed the meeting minutes from the 8/17/2017 and 9/14/2017 Educational Leadership Meeting (Interiors Working Group), attached.
48.7	Record	K. Kovacs reviewed the cranberry VCT flooring pattern on the 3 <sup>rd</sup> floor recommended by the Interiors Working Group. The Committee indicated the flooring is acceptable.
48.8	Record	K. Kovacs distributed and reviewed the Final Educational Meetings Action Items Log, dated 9/28/2017 and attached, tracking open issues from the Educational Leadership Meetings.
48.9	J. Seeley	J. Seeley distributed and reviewed the Cape Light Compact 90% Construction Document review memo, dated 9/1/2017 and GGD engineer's response, dated 9/13/2017, both attached.  Committee Discussion:  1. W. Meier asked if Cape Light Compact will visit the completed project to make sure the ECMs were constructed. <i>J. Seeley indicated yes, both NGrid and Cape Light Compact will visit the site to confirm the completed construction.</i>  2. J. Potter asked why is the electric energy savings 13% less than that calculated at the 60% construction documents review? <i>B. Beatrice indicated the reduction in part is due to the lighting now being fully shown, where in the 60% construction documents, DMI had to make some</i>

Item #	Action	Discussion
		<p><i>assumptions, also DMI is not including the kitchen hood, which will be included in the 100% construction documents.</i></p> <p>3. S. Lamarche asked why ECM Nos. 3 and 9 are lower energy savings in the 90% construction documents than the 60% construction documents?  <i>B. Beatrice explained that DMI had to make some assumptions in the 60% construction documents review which have now been engineered in the 90% construction documents.</i></p> <p>4. S. Lamarche asked why is the Performance Lighting, ECM No. 2, demand reduction the same in winter as in summer, when the school is less occupied in the summer?  <i>J. Seeley will ask Cape Light Compact for an explanation.</i></p>
48.10	J. Seeley	J. Seeley to forward the MSBA 90% Construction Document review comments to the Committee once received.
48.11	J. Potter K. Kovacs	<p>Old or New Business:</p> <p>1. S. Lamarche asked if the SBC Chair can issue a press release on the project status?  <i>J. Potter will issue a press release.</i></p> <p>2. J. Potter will provide an update at the Special Town Meeting.</p> <p>3. P. Meier asked if the school administration has coordinated with the Aptucket Garden Club for any impact to their recently planted trees?  <i>J. Norton indicated the club has been on site, tagged the trees, and will remove them before construction starts.</i></p> <p>4. S. Lamarche indicated two existing bookcases in the library are very good condition and should be repurposed in the new school. The bookcases would be relocated with the existing FFE move at project completion. The school administration will determine if any other existing FFE is to be repurposed to the new school.  <i>K. Kovacs to review and identify a location for the bookshelves.</i></p>
48.12	Record	Next <b>SBC Meeting: October 19, 2017 at 6:30 pm</b> at the Bourne Veteran’s Memorial Community Center.
48.13	Record	A Motion was made by P. Meier and seconded by F. Howe to adjourn the meeting. No discussion, motion passed unanimous.

Attachments: Agenda, 8/17/2017 Bourne Fire Department Meeting Minutes, 8/17/2017 and 9/14/2017 Educational Leadership Meeting (Interiors Working Group) Minutes, Final Educational Meetings Action Items Log, Cape Light Compact 90% Construction Document review memo, dated 9/1/2017, GGD engineer’s response memo, dated 9/13/2017

The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes

## PROJECT MEETING SIGN-IN SHEET

Project:	Peebles Elementary School Feasibility Study	Project No.:	15041
Prepared by:	Joel Seeley	Meeting Date:	9/28/2017
Re:	School Building Committee Meeting	Meeting No:	48
Location:	Veterans Memorial Community Center	Time:	6:30pm

Distribution: Attendees, (MF)

SIGNATURE	ATTENDEES	EMAIL	AFFILIATION
	James L. Potter	onsetjp@juno.com	Chairman, School Building Committee
	Peter J. Meier	pmeier@townofbourne.com	Board of Selectmen
	Christopher Hyldburg	chrish@alpha-1.com	School Committee
	Natasha Scarpato	scarpato4@comcast.net	Member-At-Large
	Donna Buckley	d.j.buckley23@gmail.com	Member-At-Large
	Richard A. Lavoie	RichL.Lavoie@gmail.com	Finance Committee
	William Meier	Dusty22752@aol.com	Building Trade Expert
	Erika Fitzpatrick	efitzpatrick@bourneps.org	School Committee
	Frederick H. Howe	rickhowe9@gmail.com	Member-At-Large
	Steven M. Lamarche	slamarche@bourneps.org	Superintendent of Schools, BPS, MCPPO
	Jordan Geist	jgeist@bourneps.org	Director of Business Services, BPS
	Thomas M. Guerino	tguerino@townofbourne.com	Town Administrator
	Paul O'Keefe	mmachief@gmail.com	Local Official Resp. for Building Maintenance
	Elizabeth A. Carpenito	ecarpenito@bourneps.org	Principal, BES
	Kathy Anderson	kanderson@bourneps.org	Elementary/Special Education Secretary
	Janey Norton	jnorton@bourneps.org	Principal, PES
	Kent Kovacs	kkovacs@flansburgh.com	Flansburgh Architects
	Betsy Farrell Garcia	bgarcia@flansburgh.com	Flansburgh Architects
	Bill Beatrice	bbeatrice@flansburgh.com	Flansburgh Architects
	Michael Cimorelli	mcimorelli@flansburgh.com	Flansburgh Architects
	Joel Seeley	jseeley@smma.com	SMMA

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## Agenda

Project:	New Peebles Elementary School	Project No.:	15041
Re:	School Building Committee Meeting	Meeting Date:	9/28/2017
Meeting Location:	Veterans Memorial Community Center	Meeting Time:	6:30 PM
Prepared by:	Joel Seeley	Meeting No.:	47
Distribution:	Committee Members (MF)		

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1. Call to Order
2. Approval of Minutes
3. Approval of Invoices and Commitments
4. Review Open Design Items
5. Review Updated Cape Light Compact Review
6. Review Final Meeting Action Log
7. Review MSBA 90% CD Comments
8. New or Old Business
9. Public Comments
10. Next Meeting: October 19, 2017
11. Adjourn



**MEMORANDUM**

To:	Peebles Elementary School Building Committee	Date:	9/28/2017
From:	Joel G. Seeley, AIA	Project No.:	15041
Project:	<b>New Peebles Elementary School</b>		
Re:	<b>Designer Amendment No. 13: LEED Design Review</b>		
Distribution:	(MF)		

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**DESIGNER AMENDMENT NO. 13: LEED DESIGN REVIEW**

**FEE:** \$4,397.00

**REASON:** Provide LEED Design Review of submitted design related materials as they relate to the anticipated LEED credits.

**BUDGET AVAILABILITY:** This Amendment would be funded out of the Other Reimbursable Costs Budget, ProPay Code 0203-9900, which has the current balance of \$98,350.00.

J:\GS\sat\_IP\2015\15041\00-INFO\0.7 Designer Procurement\0.1 Designer Contract\Amendments\Amendment No. 13 - LEED Design Review\M\_Amendment13\_Leeddesignreview\_28September2017.Doc

# ATTACHMENT F

## CONTRACT FOR DESIGNER SERVICES AMENDMENT NO. 13

**WHEREAS**, the Town of Bourne (“Owner”) and Flansburgh Associates, Inc., (the “Designer”) (collectively, the “Parties”) entered into a Contract for Designer Services for the Peebles Elementary School Project (Project Number 201400360010) at the Peebles Elementary School on September 22, 2015.  
“Contract”; and

**WHEREAS**, effective as of September 28, 2017, the Parties wish to amend the Contract:

**NOW, THEREFORE**, in consideration of the promises and the mutual covenants contained in this Amendment, and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. The Owner hereby authorizes the Designer to perform services for the Design Development Phase, the Construction Phases, and the Final Completion Phase of the Project, pursuant to the terms and conditions set forth in the Contract, as amended.
2. For the performance of services required under the Contract, as amended, the Designer shall be compensated by the Owner in accordance with the following Fee for Basic Services:

**Fee for Basic Services:**

	<b>Original Contract</b>	<b>Prior Amendments</b>	<b>This Amendment</b>	<b>After this Amendment</b>
Feasibility Study Phase	\$ 250,000.00	\$ 76,153.00		\$ 326,153.00
Schematic Design Phase	\$ 115,000.00	\$ 20,775.00		\$ 135,775.00
Design Development Phase	\$	\$ 554,035.00	\$ 4,397.00	\$ 558,432.00
Construction Document Phase	\$	\$ 1,060,000.00		\$ 1,060,000.00
Bidding Phase	\$	\$ 130,000.00		\$ 130,000.00
Construction Phase	\$	\$ 874,000.00		\$ 874,000.00
Completion Phase	\$	\$ 132,037.00		\$ 132,037.00
<b>Total Fee</b>	<b>\$ 365,000.00</b>	<b>\$2,847,000.00</b>	<b>\$ 4,397.00</b>	<b>\$3,216,397.00</b>

This Amendment is a result of: Providing LEED Design Review of submitted design related materials.

MSBA ProPay Code 0203-9900.



3. The Construction Budget shall be as follows:

Original Budget:	<u>\$30,910,366.00</u>
Amended Budget	<u>\$30,910,366.00</u>

4. The Project Schedule shall be as follows:

Original Schedule:	<u>Project Completion: November 29, 2019</u>
Amended Schedule	<u>Project Completion: November 29, 2019</u>

5. This Amendment contains all of the terms and conditions agreed upon by the Parties as amendments to the original Contract. No other understandings or representations, oral or otherwise, regarding amendments to the original Contract shall be deemed to exist or bind the Parties, and all other terms and conditions of the Contract remain in full force and effect.

IN WITNESS WHEREOF, the Owner, with the prior approval of the Authority, and the Designer have caused this Amendment to be executed by their respective authorized officers.

OWNER

Thomas M. Guerino  
(print name)  
Town Administrator, Town of Bourne  
(print title)

By \_\_\_\_\_  
(signature)  
Date \_\_\_\_\_

DESIGNER

Kent D. Kovacs, AIA LEED AP  
(print name)  
Vice President, Flansburgh, Associates, Inc.  
(print title)

By \_\_\_\_\_  
(signature)  
Date \_\_\_\_\_

# Flansburgh Architects

September 21, 2017

Mr. Joel G. Seeley AIA  
Symmes Maini & McKee  
1000 Massachusetts Ave.  
Cambridge, MA 02138

RE: Bourne Public Schools  
LEED Design Review

Dear Joel,

Attached are the proposed fees from USGBC for LEED Design Review for the Peebles Elementary School. The purpose of the work is to review submitted design related materials as they relate to the anticipated LEED credits. The fee is derived from the square footage of the building at 72,680 sf multiplied by the square foot rate at \$.055/sf.

The fee is a reimbursable expense as defined in the primary MSBA contract in articles 4.11 and 9 with a 10% allowable markup.

The fees are as follows:

Part I - Design Review: \$3,997

Total Review:  $\$3,997 \times 1.1(\text{reimbursable}) = \$4,397$

Please prepare a Contract Amendment for Part I and our signature.

Sincerely,

FLANSBURGH ASSOCIATES INC



Kent Kovacs, AIA LEED AP  
Vice President

**LEED FEES Est. for Bourne**

	Organizational	GSF:	Silver & above		Savings:	
		USGBC Members:	USGBC Members:			
		Bourne Project	Bourne Project	Bourne Project		
Registration	\$ 1,500.00	\$ 1,500.00	\$ 1,200.00	\$ 300.00	\$ 300.00	
Pre-certification review	N.A.	N.A.	N.A.	N.A.	N.A.	
Combined review	N.A.	N.A.	N.A.	N.A.	N.A.	
Split Review: Design	\$0.055/SF	\$ 3,997.40	\$0.047/SF	\$ 3,415.96	\$0.008/SF	\$ 581.44
Split Review: Construction	\$0.018/SF	\$ 1,308.24	\$0.016/SF	\$ 1,162.88	\$0.002/SF	\$ 145.36
		\$ 6,805.64		\$ 5,778.84		\$ 1,026.80
Appeals - complex credits	\$800/ea.	\$800/ea.	\$800/ea.	\$800/ea.	N.A.	N.A.
Appeals - simple credits	\$500/ea.	\$500/ea.	\$500/ea.	\$500/ea.	N.A.	N.A.
Project CIR's	\$220/ea.	\$220/ea.	\$220/ea.	\$220/ea.	N.A.	N.A.



# LEED Certification Fees

DOWNLOAD PDF

## Introduction

BD+C

ID+C

O+M

ND

Homes

Campus

Volume

Cities and Communities

## Registration and Certification Fees

Registration is a flat fee paid up front at the time of registration; rates are based on the fee schedule published at the time of registration. The certification fee is based your project's rating system and size; it is calculated and paid when the project team submits documentation for review in LEED Online (either in LEED Online or through Arc). The fees cover both the preliminary and final reviews for either review path (standard or split review). Please note: registration and certification fees are subject to change and are calculated on the dates of registration and certification submission.

You'll notice discounted pricing options for [USGBC members](#). Discounts are available based on the membership status of either the owner or the project administrator for a given LEED project.

Registration and certification fee payment policies can be found in the Guide to LEED Certification or you can visit our [payment help section](#) to search for frequently asked questions. If you need assistance at any time, please call, email, or live chat with us. [Contact us](#).

### What is included with your LEED fees?

- A dedicated LEED Coach: Newly registered projects are given a dedicated LEED Coach. LEED Coaches have more than a decade of green building and LEED expertise and can assist with any questions that arise during your LEED certification process.
- Award-winning customer service: Our customer service team has received 11 awards since 2011, including "Customer Service Team of the Year" from the American Business Awards and the International Business Awards.
- Integration and access to the new Arc platform: All projects in LEED online have automatic access to Arc at no additional cost – simply [log into Arc](#) and link up your project.

**Choose from the rating systems and programs in the tabs below to review registration and certification fees.**

## Building Design and Construction Fees

BUILDING DESIGN AND CONSTRUCTION FEES PER BUILDING	SILVER, GOLD AND PLATINUM LEVEL MEMBERS	ORGANIZATIONAL OR NON-MEMBERS
REGISTRATION	\$1,200	\$1,300
PRECERTIFICATION		

Flat fee (per building)	\$4,000	\$5,000		
<a href="#">Expedited review</a> (reduce from 20-25 business days to 10-12, available based on GBCI review capacity)	\$5,000			
<b>COMBINED CERTIFICATION REVIEW: DESIGN AND CONSTRUCTION</b>	<b>RATE</b>	<b>MINIMUM</b>	<b>RATE</b>	<b>MINIMUM</b>
Project <a href="#">gross floor area</a> (excluding parking): less than 250,000 sq ft	\$0.057 /sf	\$2,850	\$0.068 /sf	\$3,420
Project <a href="#">gross floor area</a> (excluding parking): 250,000 - 499,999 sq ft	\$0.055 /sf	\$14,250	\$0.066 /sf	\$17,100
Project <a href="#">gross floor area</a> (excluding parking): 500,000 - 749,999 sq ft	\$0.050 /sf	\$27,500	\$0.060 /sf	\$33,000
Project <a href="#">gross floor area</a> (excluding parking): more than 750,000 sq ft	Contact GBCI		Contact GBCI	
<a href="#">Expedited review</a> (reduce from 20-25 business days to 10-12, available based on GBCI review capacity)	\$10,000			
<b>SPLIT REVIEW: DESIGN</b>				
Project <a href="#">gross floor area</a> (excluding parking): less than 250,000 sq ft	\$0.047 /sf	\$2,325	\$0.055 /sf	\$2,740
Project <a href="#">gross floor area</a> (excluding parking): 250,000 - 499,999 sq ft	\$0.045 /sf	\$11,625	\$0.053 /sf	\$13,760
Project <a href="#">gross floor area</a> (excluding parking): 500,000 - 749,999 sq ft	\$0.041 /sf	\$22,500	\$0.049 /sf	\$26,625
Project <a href="#">gross floor area</a> (excluding parking): more than 750,000 sq ft	Contact GBCI		Contact GBCI	
<a href="#">Expedited review</a> (reduce from 20-25 business days to 10-12, available based on GBCI review capacity)	\$10,000			
<b>SPLIT REVIEW: CONSTRUCTION</b>				
Project <a href="#">gross floor area</a> (excluding parking): less than 250,000 sq ft	\$0.016 /sf	\$775	\$0.018 /sf	\$910
Project <a href="#">gross floor area</a> (excluding parking): 250,000 - 499,999 sq ft	\$0.015 /sf	\$3,875	\$0.018 /sf	\$4,585
Project <a href="#">gross floor area</a> (excluding parking): 500,000 - 749,999 sq ft	\$0.014 /sf	\$7,500	\$0.016 /sf	\$8,875
Project <a href="#">gross floor area</a> (excluding parking): more than 750,000 sq ft	Contact GBCI		Contact GBCI	
<a href="#">Expedited review</a> (reduce from 20-25 business days to 10-12, available based on GBCI review capacity)	\$10,000			
<b>APEALS</b>				
<a href="#">Complex credits</a>	\$800 per credit			
<a href="#">Credits</a>	\$500 per credit			
<a href="#">Expedited review</a>	\$500 per credit			
<b>FORMAL INQUIRIES</b>				
<a href="#">Project CIRs</a>	\$220 per credit			

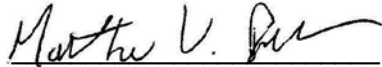
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DATE: September 13, 2017

MEMO

TO: William T. Beatrice, AIA  
Flansburgh

FROM: Matthew V. DiSalvo, P.E.



PROJECT: Peebles Elementary School  
Bourne, MA

SUBJECT: ECM Savings Update - DMI Analysis Review

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In response to the updated analysis review performed by DMI on the 90% CD drawings set, we offer the following as clarification for each line item regarding any cost savings or increase due to design variations.

- ECM 1 Condensing Boilers: Gas savings increased from the 60% CD drawings set due to specified boiler reset schedule versus DMI's 60% CD predictions.
- ECM 2 Performance Lighting: Cost savings dropped by \$406.00 from the 60% CD drawings review due to lighting design progress and coordination.
- ECM 3 DOAS and Chilled Beams: Cost savings was reduced by \$2034 from the 60% CD review because DMI's 60% CD drawings review utilized an estimate of the chilled beam capacities of 1 Ton per 450 S.F. which was not enough to meet the calculated space ventilation and cooling requirements; likely due to population density of the spaces.
- ECM 4 Displacement Ventilation in Classrooms: Cost Savings Increased from the 60% CD Review
- ECM 5 Demand Control Ventilation in Classrooms: This is not applicable to this project because the space occupancies are too dense and Demand Control Ventilation is required by code.
- ECM 6 High Performance Building Envelope – Roof: Cost savings remained the same as the 60% CD review.
- ECM 7 High Performance Chiller: Savings associated with ECM 7 increased from the 60% CD drawings review due to control sequence design progress.
- ECM 8 DX RTUs: Savings associated with ECM 8 increased from the 60% CD drawings review due to control sequence design progress.
- ECM 9 High Performance Energy Recovery: Savings associated with ECM 9 decreased by \$365 from the 60% CD review due to the actual design Energy Recovery Wheel Effectiveness values provided in the 90% set being slightly lower than the values predicted by DMI.
- ECM 10 High Performance Split Unit ACS: No change in Savings between 60% & 90% reviews.

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- ECM 11 CHW/HW Pump VFDs: No change in savings between the 60% & 90% reviews
- ECM 12 Variable Speed Kitchen Hood Exhaust: This is for review by the Kitchen Consultant and would require a variable speed kitchen exhaust control system to be included in the project.

In summary, GGD has continued to design a highly efficient system for the Peebles Elementary School and the 90% CD documents are correct and the most accurate. The slight decreases in Estimated Energy savings are due to drawing progress, ongoing design coordination, and imperfect predictions as noted above.

Please contact our office should you have any questions or comments regarding this memo.

MVD:ja

Cc: Michael Cimorelli, Flansburgh  
Dominick B. Puniello, P.E., Garcia, Galuska & DeSousa, Inc.  
Daniel G. Sarro, Garcia, Galuska & DeSousa, Inc.

September 1, 2017

Kevin Galligan  
 Cape Light Compact  
 P.O. Box 427  
 3195 Main St, Route 6A  
 Barnstable, MA 02630

Paul Russell Salk  
 National Grid  
 280 Melrose Street  
 Providence, RI 02907



300 Chestnut Street  
 Suite 150  
 Needham, MA 02492

(p) 781 449 5700  
 (f) 781 449 5710

www.dmiinc.com

Re: ECM Savings Update – Peebles Elementary School

Dear Kevin and Paul:

DMI has reviewed the 90% CD drawing set for the Peebles Elementary School new construction project in Bourne, MA, and we have revised our ECM savings analysis to reflect the latest design information. Refer to memo dated 7/24/17 for individual measure details. The purpose of this memo is to provide the overall savings updates based on the information in the 90% CD drawings.

**ECM Analysis Summary**

The energy savings in this memo were calculated using a bin-model spreadsheet analysis. Hyannis TMY3 weather data was used to create the weather bin profile assuming an operating schedule of 6AM-6PM Monday through Friday for the months from September through June, and 9AM-3PM Monday to Friday for the months of July and August.

Annual energy cost savings are calculated assuming utility rates of \$0.13/kWh and \$0.99/therm. Incremental cost estimates for the measures below have not yet been developed by DMI. Table 1 below presents a summary of the energy savings for this project.

**Table 1: Energy Savings Summary**

ECM #	Description	Measure Analysis Method	Annual Savings			On Peak %	Demand Reduction		
			Energy		Cost \$		Winter kW	Summer kW	Max kW
			kWh	therms					
1	Condensing Boilers	Custom	0	3,705	\$3,668	N/A	N/A	N/A	N/A
2	Performance Lighting	Performance	54,495	0	\$7,084	86.4%	24.5	24.5	24.5
3	DOAS and Chilled Beams	Custom	27,527	389	\$3,963	93.4%	5.7	14.2	15.8
4	Displacement Ventilation in Classrooms	Custom	4,588	113	\$708	96.6%	0.4	5.6	11.2
5	<del>Demand Control Ventilation in Classrooms</del>	<del>Custom</del>	<del>0</del>	<del>0</del>	<del>\$0</del>	<del>N/A</del>	<del>0-0</del>	<del>0-0</del>	<del>0-0</del>
6	High Performance Building Envelope - Roof	Custom	143	708	\$719	99.0%	0.0	0.2	1.2
7	High Performance Chiller	Custom	6,788	0	\$882	95.3%	0.0	4.7	6.1
8	DX RTUs	Custom	8,567	0	\$1,114	93.0%	0.3	3.2	6.7
9	High Performance Energy Recovery	Custom	9,115	1,372	\$2,544	97.1%	0.0	10.4	22.3
10	High Performance Split Unit Acs	Custom	1,734	0	\$225	95.7%	0.0	1.6	2.9
11	CHW/HW Pump VFDs	Custom	9,146	0	\$1,189	92.3%	2.1	2.1	5.5
12	<del>Variable Speed Kitchen Hood Exhaust</del>	<del>Custom</del>	<del>0</del>	<del>0</del>	<del>\$0</del>	<del>N/A</del>	<del>0-0</del>	<del>0-0</del>	<del>0-0</del>
Total			122,104	6,286	\$22,097	90.7%	33.1	66.5	96.2



### ***Discussion***

The updated electric savings are 13.5% less than those calculated based on the 60% CD set, and the gas savings are 1.3% less than those calculated based on the 60% CD set. The high-level changes that were made are as follows:

- The condensing boiler reset schedule specified in the 90% CD set was more aggressive than assumed in the 60% CD set analysis which benefitted gas savings.
- The Lighting design changed slightly, reducing the savings for ECM 2.
- The chilled beam capacities were specified in the 90% mechanical schedule. These capacities were used to update the savings for ECM 3 and resulted in less energy savings than originally predicted based on assumptions about the chilled beam capacities.
- Chiller operation during unoccupied periods was added to the analysis, and this change increased energy savings for ECM 7.
- The discharge air temperature schedule was updated based on the dehumidification sequence specified in the 90% CD set. This increased the savings for ECM 8.
- A reminder that the design occupancy densities in the classrooms meet the threshold for code required demand control ventilation so ECM 5 will not be considered for this study.
- The energy savings for ECM 12 will not be considered because the system is being installed with manual controls. It is assumed that the VFDs involved in the kitchen ventilation system are for balancing purposes only.

### ***Conclusion***

The purpose of this memo is to provide an update to the PA and customer regarding the status of the energy measures after the savings analysis has been updated based on the 90% CD drawings. It is a pleasure to be of Service to Cape Light Compact, National Grid, and your customer. Feel free to contact DMI with any questions or comments regarding this memo.

Sincerely,



Bennett Rose, EIT  
Project Engineer  
781-449-5700 x25

Date		Meeting Comment	Party	Resolution
<b>December 14, 2016 Educational Meeting</b>				
1	12/14/2016	Nurse: The nurse requested a dedicated icemaker. This item will require a decision by the District.	District	A refrigerator / freezer with ice maker will be provided. A stand alone dedicated ice maker is not required per district's response at the March 13,2017 Educational Design Meeting
2	12/14/2016	Music: It was requested after further review to change one practice room into a music office. FAI stated this request would need to be confirmed at the January 5th Academic Leadership team meeting.	FAI	This item was discussed at the January 5, 2017 Educational meeting and approved. FAI to update plans and space template.
3	12/14/2016	Art: It was requested that a minimum of three sinks to be provided with plaster traps.	FAI	This item has been incorporated into the art room layout
4	12/14/2016	Art: A request was made to incorporate a singular peninsula configuration similar to the Bournedale art room for greater access to sinks. FAI to review.	FAI	This item has been incorporated into the art room layout
5	12/14/2016	Art: Student work display areas should be studied both inside the art room and hallway areas. FAI to review.	FAI	A display case has been provided a node between MC and Art studio. Tackboards have been provided inside the room for pin-up.
6	12/14/2016	Art: An office was requested beyond the already submitted MSBA space template. FAI explained the size of the art room and storage may reduce in size to accommodate this request would be discussed at the January 5th Academic Leadership team meeting.	FAI	This item was discussed at the January 5, 2017 Educational meeting and approved. FAI to update plans and space template.
7	12/14/2016	Library: A workroom and office should be incorporated into the overall layout. The workroom will require a sink. The main circulation desk does not need to be adjacent to the workroom and office.	FAI	The workroom with sink and office has been incorporated into the plan.
8	12/14/2016	Library: The main circulation desk should have high counter portion "check-out" with a lower section at standard desk height. A book return area should be incorporated into the desk. District to confirm if a book return slot is required between the hallway and the media center.	District	A book return slot is not required between the hallway and media center. This item was discussed and deemed unnecessary at the March 13,2017 Educational Design Meeting
9	12/14/2016	Library: Fixed bookcases along the perimeter walls with mobile bookcases in the open areas can optimize flexibility. The District should provide FAI with anticipated book volume count to assist in planning bookcases and any required media storage area.	District	<a href="#">The library shall accommodate 5,600 volumes</a>

Date	Meeting Comment	Party	Resolution
10 12/14/2016	Grade 3: An exterior door was requested from the team room directly to the outdoor garden area. FAI stated this could be accommodated.	FAI	This item was discussed at the January 5, 2017 Educational meeting and approved. FAI to update plans.
11 12/14/2016	Grade 3: It was requested that connecting doors located between classrooms. FAI stated connecting doors were part of the project in the last phase and removed due to cost. This request will be discussed at the January 5th Academic Leadership team meeting.	FAI	This item was discussed at the January 5, 2017 Educational meeting and discussed and approved at the February 2, 2017 SBC. FAI to update plans.
12 12/14/2016	Grade 4: It was requested an additional teacher's toilets be located closer to the 4th grade. After review of the plan, one additional teacher's toilet can be incorporated on the second floor. This provides a total of 2 singular staff toilets on the first floor adjacent to the staff workroom, 2 singular staff toilets on the first floor within the administration suite, and 3 singular staff toilets on the second floor.	FAI	One singular staff toilet room has been provided within the 4th grade academic wing.
<b>December 15, 2016 Educational Meeting</b>			
1 12/15/2016	Physical Education: A water fountain was requested within the gym space. FAI stated this item will be incorporated.	FAI	The sink has been incorporated into the gymnasium layout.
2 12/15/2016	Physical Education: The gym instructor liked the idea of having moveable bleachers for flexibility. FAI to study further.	FAI	Bleachers will be fixed and justified to the southern wall only per district's response at the March 13, 2017 Educational Design Meeting
3 12/15/2016	Physical Education: An office was requested beyond the already submitted MSBA space template. FAI explained the size of storage area will be reduced in size to accommodate and this request will be discussed at the January 5th Academic Leadership team meeting.	FAI	This item was discussed at the January 5, 2017 Educational meeting and discussed and approved at the February 2, 2017 SBC. FAI to update plans.
4 12/15/2016	Physical Education: A request for a toilet and shower may be accommodated in the nearby custodial/kitchen area for shared use. FAI stated this request would need to be confirmed at the January 5th Academic Leadership team meeting.	FAI	This item was discussed and approved at the January 5, 2017 Educational meeting. FAI to update plans.

Date	Meeting Comment	Party	Resolution
5 12/15/2016	Physical Education: The gym instructor was concerned outdoor play area and lawn would be limited to the new construction of the school. FAI stated during construction, the area in front of the existing Peebles (grass area currently used for PE) would be utilized by the contractor. After the final site work phase, there will be lawn area adjacent to the new tennis court. The instructor asked if a stone dust walking/jogging path could be created. FAI to review.	FAI	Outdoor lawn area with a walking / jogging path around the perimeter has been incorporated into the project
6 12/15/2016	Administration: It was mentioned that an additional office would be required to support the administration team for a desired total of five offices. We discussed reducing the conference rooms to accommodate the request. FAI stated this request would need to be confirmed at the January 5th Academic Leadership team meeting.	FAI	This item was discussed and approved at the January 5, 2017 Educational meeting. FAI to update plans.
7 12/15/2016	Administration: Storage strategies were discussed with options for both storage rooms for records and general hallway closets to accommodate office material. FAI to review.	FAI	Hallway closets will not be provided. The storage rooms will have shelving and tall storage cabinets. Individual office storage will be FFE. General office storage is accommodated in the Mail/Copy area with base and wall cabinets
8 12/15/2016	Administration: The mail/copy area was discussed with opportunities for a kitchenette as well as a work surface area for assembling documents. FAI to study this area further.	FAI	The office suite Mail/Copy area has a kitchenette counter w/sink and refrigerator on the north side and a continuous working surface on the south side.
9 12/15/2016	Middle School (5th Grade): Connecting doors were requested. FAI stated this request would need to be confirmed at the January 5th Academic Leadership team meeting.	FAI	This item was discussed at the January 5, 2017 Educational meeting and discussed and approved at the February 2, 2017 SBC. FAI to update plans.
10 12/15/2016	Middle School (5th Grade): Teachers asked if fixed desktop computers are planned for each classroom. FAI stated they are not and student use within the classrooms would be laptop or tablet based. District to confirm hardwired fixed desktops computers are not required within the classroom for student use.	District	General classrooms will not have fixed desktop computers for student use per district's response at the March 13, 2017 Educational Design Meeting
11 12/15/2016	Middle School (5th Grade): It was noted that a dedicated space to accommodate two small buses supporting students with needs should be provided. FAI to study location.	FAI	This item was discussed at the January 5, 2017 and January 27, 2017 Educational meeting. The dedicated space will be located on the north-side of the building adjacent to the parent pick-up and drop-off.
12 12/15/2016	Computer: The floor plans were reviewed and designed computer areas discussed. There are limited fixed desktop machines in the iStudio (3-4 total) and in the Media Center (10-12 total). The classroom zone of the Media Center may be laptop or tablet based to accommodate 24 students. District to confirm hardwired fixed desktops computer locations.	District	The iStudio will have 6 desktop computer and the Media Center will have 12 desktop computers for student use per district's response at the March 13, 2017 Educational Design Meeting

Date	Meeting Comment	Party	Resolution
13 12/15/2016	Innovation Studio: There was a request for an additional open shelving wall that could be concealed with sliding marker boards fixed to the front. FAI will review the request with the furniture consultant.	FAI	The istudio will have one storage and marker board assembly to maximize writing surfaces due to minimal wall surface.
14 12/15/2016	Innovation Studio: The ceiling will remain open to provide the opportunity to hang objects/devices from structure above. The exposed deck and any ductwork will be painted a dark color. Color to be determined. FAI request the District decide if the adjoining art room shall have an exposed ceiling for consistency.	FAI	The Innovation Studio and Art room ceilings will be painted exposed deck and ductwork. This item was discussed at the February 16,2017 Educational meeting
15 12/15/2016	Innovation Studio: Anticipated equipment is as follows: 3D-printer, laser cutting, 3 to 4 fixed computer stations serving equipment. Computers required hard connection to equipment. FAI to review with Technology consultant. District to confirm list of equipment to assist in mechanical ventilation requirements of space.	District/FAI	There will be two 3-D printers (Makerbot 3x) and one laser cutting on a stand. Laser cutter will require a vent.
16 12/15/2016	Custodians & Cafeteria: Site Related Items - The existing Peebles does not have a dumpster or compactor. All trash is collected in 50 gallon barrels, stored then loaded into a pickup truck. There may be a garbage truck in the future with the capacity to empty a dumpster. The project will be designed with the loading dock. A dock lift was requested to bring barrels and other materials down to the driveway elevation. FAI stated this is costly and not in the budget. The custodians requested a walking path that would connect the loading dock with the driveway. A dock leveler was also requested that is not currently in to budget. the custodians stated a loading plate would satisfy this need in lieu of a dock leveler. The District should provide the desired dumpster or compactor specifications to assist in designing the loading dock and any power requirements for the compactor.	District	A compactor is not required as discussed at the March 30, 2017 Facilities meeting. A dumpster will be provided.
17 12/15/2016	Custodians & Cafeteria: Site Related Items - The custodians requested a stone dust drive connecting the middle school to the existing storage shed. FAI to evaluate if this connection is possible.	FAI	A crushed stone access road has been developed and incorporated into the project.
18 12/15/2016	Custodians & Cafeteria: Building-Related Items - It was requested that a 4'-0" chase with a full man-door be provided in between the gang toilets. FAI stated this is not a possibility due to space limitations. Access panels will be provided along the chase wall. FAI to follow up with GGD on location and size.	FAI	Access panels are 12" x 12" and at valve connections in plumbing chase walls.
19 12/15/2016	Custodians & Cafeteria: Building-Related Items - One larger continuous sink per gang toilet was requested in lieu of 2 individual sinks in each gang toilet. FAI to follow up with GGD on this item.	FAI	Confirmed. Current documents indicate this.
20 12/15/2016	Custodians & Cafeteria: Building-Related Items - It was requested light fixtures in the egress stairs shall be wall mounted sconces for ease of access in lieu of "hard to reach" ceiling fixtures. FAI to follow up with GGD.	FAI	Light fixtures will be mounted to the wall for ease of maintenance

Date	Meeting Comment	Party	Resolution
21	12/15/2016 Custodians & Cafeteria: Building-Related Items - FAI asked if the Boston Food Bank space, currently in the existing Peebles, should be accommodated into the new layout. The District should confirm if this space is required.	District	Special space accommodations for the Food Bank are not required in the new kitchen design. The kitchen design, as documented in the Design Development Set, satisfies the kitchen requirements per district's response at the March 13, 2017 Educational Design Meeting
22	12/15/2016 Custodians & Cafeteria: Building-Related Items - A student tray and dish window was requested from the main cafeteria. The District should confirm if trays and dishware will continue to be used by students or if disposable type is planned for the future. A future meeting with the kitchen director is required.	District	These items are required per January 25, 2017 Food service meeting. The tray window and dishwasher has been accommodated in the new kitchen design.
23	12/15/2016 Custodians & Cafeteria: Building-Related Items - There was a request for a singular shower, toilets, and washer/dryer to be shared between custodial, kitchen and gym instructor. FAI stated this request would need to be confirmed at the January 5th Academic Leadership team meeting.	FAI	These items have been incorporated into the project
24	12/15/2016 Custodians & Cafeteria: Building-Related Items - A request for electric hand dryers in the gang toilets was requested. This would be total of 8 electric hand dryers. Paper towels can be used in the singular staff and SPED toilets. District to confirm this request.	District	Electric hand dryers are required at the community-use toilets adjacent to the gymnasium and cafeteria only. This is a total of 2 electric hand dryers. Paper towels will be used at singular staff, SPED toilets and gang toilets serving grades 3, 4 and 5 per district's response at the March 13, 2017 Educational Design Meeting
25	12/15/2016 Custodians & Cafeteria: Building-Related Items - There was a request to incorporate floor drains at all gang toilets. FAI to review the request.	FAI	Floor drains will be provided at gang toilets only
<b>January 5, 2017 Educational Meeting</b>			
1	1/5/2017 Gymnasium: The gym instructor like the idea of having moveable bleachers for flexibility. The District stated the target bleacher seat count should be 200. Students can be seated on the floor surface during an all student assembly. The group asked if the bleachers could be justified to one side only to maximize useable space on the opposing side. FAI to study bleacher configurations, both fixed and moveable.	FAI	Bleachers will be fixed and justified to the southern wall only per district's response at the March 13, 2017 Educational Design Meeting
2	1/5/2017 Cafeteria: A requested student tray and dish window from the 12/15/2016 meeting was discussed. The District should confirm if trays and dishware will continue to be used by students or if disposable type is planned for the future. A future meeting with the kitchen director is required.	District	These items are required per January 25, 2017 Food service meeting. The tray window and dishwasher has been accommodated in the new kitchen design.
3	1/5/2017 Cafeteria: The requested shower, toilets, and washer/dryer from the 12/15/2016 meeting were discussed. This was acceptable by the group. FAI to study arrangement.	FAI	These items have been incorporated into the project

Date		Meeting Comment	Party	Resolution
4	1/5/2017	Academic Wings: The group discussed the connecting doors requested at 12/14/2016 and 12/15/2017 meetings. The leadership team decided the doors should be incorporated into the project. FAI stated this item to be discussed at the January 5th SBC meeting.	FAI	Connecting doors have been incorporated into the project
<b>January 26, 2016 Site Design Meeting</b>				
1	1/26/2017	Site Design: Vehicular circulation for both cars and buses remains largely unchanged from the SD submission. The 24' wide, one-way circulation has been maintained. A crushed stone vehicular access from the Middle School to the maintenance shed has been added for pricing purposes. Cost will determine if the access drive remains in the project.	FAI/WDA	The crushed stone access drive has been incorporated into the project and is within the project budget.
2	1/26/2017	Site Design: Pedestrian circulation from Trowbridge Road and around the perimeter of the building also remains largely unchanged. The width of the sidewalk from Trowbridge Road to the main entrance has been widened to 8' minimum to accommodate shared pedestrian and bike use to allow us to meet the criteria for the LEED Location and Transportation credit for Bicycle Facilities. Additional pedestrian paths to connect the new school to the larger campus have been introduced for pricing purposes. Cost will determine if the paths remain in the project.	FAI/WDA	A stone dust pathway connecting to the middle school has been incorporated into the project and is within the project budget.
3	1/26/2017	Playground Area: Program elements will include at least one play structure for age 5-12 children, the size of which will be determined based on the total square foot area of the designated structure area; a paved free play area with painted pavement striping for games (foursquare, hopscotch, etc.); a student garden area with raised timber planters; and four benches and two trash/recycling receptacles.	FAI/WDA	The playground, hardscape and garden as designed in the 60% Construction Document Set satisfies the school's requirement for outdoor use. Refer to the Educational Leadership Team meeting notes May 5, 2017.
<b>January 27, 2017 Food Service Meeting</b>				
1	1/27/2017	Change the 5 well hot wells to 4 well hot wells	FAI/TDA	This has been updated on latest plan.
2	1/27/2017	Change two of the hot cabinets to cold cabinets. A total of 2 hot and 2 cold cabinets to be provided.	FAI/TDA	This has been updated on latest plan.
3	1/27/2017	Add a microwave oven	FAI/TDA	This has been updated on latest plan.
4	1/27/2017	Add a Robo coup, food processor	FAI/TDA	This has been updated on latest plan.

Date		Meeting Comment	Party	Resolution
5	1/27/2017	Range to have storage base, not oven base	FAI/TDA	This has been updated on latest plan.
6	1/27/2017	Two flat top condiment carts to be added to the cafeteria space with enclosed base.	FAI/TDA	This has been updated on latest plan.
7	1/27/2017	Remove one section of storage shelving and add two can racks in place.	FAI/TDA	This has been updated on latest plan.
8	1/27/2017	Worktables to have casters	FAI/TDA	This has been updated on latest plan.
9	1/27/2017	Convection ovens to have casters and flexible gas connection.	FAI/TDA	This has been updated on latest plan.
10	1/27/2017	Steamer to be boiler less unit.	FAI/TDA	This has been updated on latest plan.
11	1/27/2017	Add kettles (two trunnion)	FAI/TDA	This has been updated on latest plan.
12	1/27/2017	Remove one double convection oven	FAI/TDA	This has been updated on latest plan.
13	1/27/2017	Add pot rack over item FS-21	FAI/TDA	This has been updated on latest plan.
14	1/27/2017	Add over shelves to items FS-14, FS-15 and FS-20	FAI/TDA	FS-15 is a cold cabinet. FS-14 and FS-20 have overshelves per latest plan.
15	1/27/2017	Relocate door into office to kitchen side	FAI/TDA	This has been updated on latest plan.
16	1/27/2017	TDA to update layout and provide cut sheets.	FAI/TDA	This has been updated within the Design Development submission



Date	Meeting Comment	Party	Resolution
<b>February 15, 2017 MEP/FP Meeting</b>			
1	150kw natural gas generator originally proposed to back up life safety/basic systems. 250kw diesel generator carried in estimate set for inclusion of the kitchen load in "shelter" scenario. Natural gas generators 200kw and above triggers a significant increase in cost, therefore diesel was proposed for the 250kw. Generator calculation to be provided.	FAI/GGD	The 250 kw diesel generator has been incorporated into the cost of the project. This item was discussed at the March 30, 2017 School Facilities meeting. Generator load calculations and a list of items supported by the generator are included.
2	Addressable fire alarm system to be provided. Fire alarm control panel to be located in the Main Electrical Room and the annunciator panel located in the Main Vestibule. System requirements to be confirmed with fire department.	FAI/GGD	Meeting with Fire Department took place 3/2/17 where system requirements were confirmed.
3	Fire Department Connection was pointed out. This location and other Fire Department related questions will be confirmed at the meeting with Fire Department, scheduled for 2/13/2017.	FAI/GGD	Locations of fire department connections have been coordinated with Bourne FD. Two connections will be provided for the building.
4	A plumbing fixture cut package will be provided at 60%CD for review.	FAI/GGD	Plumbing fixture cuts have been provided in the 60% and 90% Construction Document sets
<b>March 2, 2017 Bourne Police and Fire Department Meetings</b>			
1	Fire Department connection is 4" Storz type. Provide two connections on building. One connection to be located on north side of building near Classroom wing. Second connection to be located on south side of building adjacent to receiving area. Signage to be provided on the building above each fire department connection.	FAI Veri/Waterman/ GGD	The two connections are provided with a walkway from the sidewalk and signage above each connection
2	BDA to be used to amplify Fire Department radio only.	FAI Veri/Waterman/ GGD	A BDA is carried in the estimate.
3	Automatic sprinkler system will be wet type. Three sprinkler zones to be provided - 1) First Floor Classroom Wing, 2) First Floor Assembly areas and 3) Second Floor Classroom wing. All sprinkler zones will have dedicated supervised shutoff valve and flow switch.	FAI Veri/Waterman /GGD	Confirmed. Current documents indicate this.
4	New addressable fire alarm system will be provided. Alarm transmission is through central station.	FAI Veri/Waterman / GGD	Confirmed with fire department on 3/2/17
5	Main Electric Room and Main Emergency Electric Room will not be protected with automatic sprinklers. Room will be 2-hour rated. These rooms will have smoke detectors.	FAI Veri/Waterman/ GGD	Confirmed. Current documents indicate this

Date	Meeting Comment	Party	Resolution
6	CO detectors provided in kitchen at cooking island. CO to be provided outside of rooms where natural gas heating equipment is provided. CO detection shall put building into alarm.	FAI Veri/Waterman /GGD	Confirmed with fire department on 3/2/17
7	Standpipe connects to be provided in Classroom wing. Standpipe to be provided in each stair with a third located near elevator.	FAI Veri/Waterman/ GGD	Confirmed. Current documents indicate this.
8	Reviewed site entry points, parking, bus queues and parent drop-off routes. Nine (9) buses are typically used - in (2) shifts, buses will not be "doubled up." No additional changes were requested. FAI to follow up with District on "Event" parking.	FAI Veri/Waterman	There is a total of 130 new parking spaces: 100 @ main lot, 21 @ tennis court, and 9 @ service area. Additional event parking will be supported by the existing High School and Middle School lots
9	Width of entry has been increased to 20'-0" as previously requested.	FAI Veri/Waterman	The 20'-0" entry drive width has been incorporated.
10	Precast curbs will be used at the straight runs, granite curbs for the curved sections. Mountable granite curb has been provided for firetrucks to access the rear play area (west elevation.)	FAI Veri/Waterman	This item has been incorporated
11	BFD requested gate providing access for firetrucks at rear play area be electrified and tied into the fire alarms system. District to evaluate this request.	District	A manually operated gate will satisfy the Fire Department an electrified gate is not necessary
12	Lettering on building shall be 12" tall (building number/school name). All exterior doors shall be numbered (6" tall) located above doors. Pairs of doors are considered one number.	FAI Veri/Waterman	These item has been incorporated
13	BFD has requested an 18" border of crushed stone around the base of the building. Veri/Waterman to review and include in base design.	FAI Veri/Waterman	This item has been incorporated
<b>March 13, 2017 Technology and Security Meeting</b>			
1	District Fiber will need to be extended/relocated to the new school. The fiber is owned by the District. The Owner's vendor is Comm-tract. Contact is Bryan Hopkins. D. Faria recommended that the Owner continue with Comm-tract for this work and suggested that they be contacted sooner rather than later for a quote for budgeting purposes.	District	<a href="#">Comm-tract was contacted and a quote was produced for budgeting purposes</a>
2	Existing Smartboards will be re-purposed where possible and practical. One will be located in the library, near the entrance. District to evaluate, select, and store existing Smartboards for re-use.	District	Smartboards will be as follows: 2 units in the library, 1 unit in Conference room #118 and 1 unit in Conference #114
3	A fixed computer station is required in adjacent to Lobby 101 and the Administration suite. Flansburgh to coordinate location.	FAI	This item has been incorporated

Date		Meeting Comment	Party	Resolution
4	3/13/2017	Surveillance camera will be added in the iStudio.	FAI	This item has been incorporated into the project for security and safety purposes
5	3/13/2017	Surveillance camera will be added at the Loading Dock/Emergency Access Area.	FAI	This item has been incorporated into the project for security and safety purposes
6	3/13/2017	AI Phone will be added outside the library stairs exterior, Office 153, and Office 107	FAI	This item has been incorporated into the project for security and safety purposes
7	3/13/2017	Surveillance camera will be added to Corridor 135.	FAI	This item has been incorporated into the project for security and safety purposes
8	3/13/2017	Surveillance camera will be added in the corridor adjoining the 2nd floor bathrooms	FAI	This item has been incorporated into the project for security and safety purposes
9	3/13/2017	Surveillance camera will be added to cover the tennis courts.	FAI	This item has been incorporated into the project for security and safety purposes
<b>March 30, 2017 Site Design and Planning Meeting</b>				
1	3/30/2017	Site: It was discussed that main parking area will have no islands as suggested in the previous meeting by the facilities group. FAI noted that light posts with concrete bases are within the open parking area and should use caution when plowing. FAI to provide a detail on the concrete light pole base.	FAI	The concrete pole light base detail has been incorporated into the 60% pricing set.
2	3/30/2017	Site: The district discussed relocating the existing portable trailer from the gravel lot to the south of the annex to the south side of the maintenance building. A second storage structure in the gravel area will be relocated by the district - new located TBD. The district to confirm final location and moving date with the Architect. FAI noted both structures must be removed from the gravel lot area by September 2017.	FAI District	The concrete pole light base detail has been incorporated into the 60% pricing set.
3	3/30/2017	Site: The facilities group asked if the stone dust path, located north to south, along the western edge of the softball field be asphalt in lieu of stone dust for snow maintenance purposes. The circular jogging path adjacent to this walk to remain stone dust. FAI will review potential cost increase and discuss with SBC.	FAI	Changing the stone dust path to asphalt is approx. \$6000. The path will remain stone dust as discussed in the July 13th SBC meeting.

Date	Meeting Comment	Party	Resolution
<b>April 6, 2017 Site Design and Planning Meeting</b>			
1 4/6/2017	Playground Layout: It was discussed that the school would like a singular basketball hoop supported by a paved surface with a free throw line. The area best suited for the basketball area is between the exterior wall of the kitchen and the soft surface play equipment area to the west.		There will be two basketball hoops and the free throw line is unnecessary. Refer to the Educational Leadership Team meeting notes May 5, 2017.
2 4/6/2017	Site Design - Entry Plaza: A perspective drawing of the entry plaza was shown to the group. The District commented that the concrete bollards were not attractive and asked Flansburgh to look into other options. The group studied other examples via a web-based search and expressed that wood bollards would be a better fit with the school aesthetic.		A wood bollard detail has been incorporated into the 90% pricing set
3 4/6/2017	Site Design - Entry Plaza: The District was favorable to an accent color applied to the media center soffit. Shades of the school color to be evaluated.		The color will be a blue/purple based on Ben. Moore Lilac
<b>April 14, 2017 Site Design and Planning Meeting</b>			
1 4/14/2017	Building Design: The group review the interior materials proposed for the project. It was discussed to change the proposed 1" x 2" wood batten in the gymnasium to 1" x 2" PVC composite batten for durability at the gym only.		This item has been incorporated into the 60% Construction Document Set
2 4/14/2017	Building Design: The mock-up 12" x 30" locker sample was discussed. The proposed 12" wide x 12" depth locker is acceptable by the District. Students will test the height of the double-tiered locker unit. District to provide findings.		Student lockers will be 12" (width) x 12" (depth). Locker height varies by grade. This is acceptable by the district. Refer to the Educational Leadership Team meeting notes May 5, 2017.
3 4/14/2017	Site Design: The group expressed a "timber" style bollard would be more appropriate than the proposed precast concrete bollard the bus drop off and parent drop-off locations. FAI to study options.		A wood bollard detail has been incorporated into the 90% pricing set
<b>April 26, 2017 Hardware Design Meeting</b>			
1 4/26/2017	The Superintendent wanted to make sure there is a way to close off access to the second floor from Stair 2. The design team proposes a concealed accordion-style partition ease of the elevator and stair.		This item has been incorporated into the 60% Construction Document Set
<b>May 5, 2017 Site and Building Design Meeting</b>			
1 5/5/2017	Site Design: Playground Layout - The group reviewed two options for playground equipment type and layout. Option 1 is preferred without the swing set. Final selection of play equipment will be discussed after the 60% CD set is submitted.		The playground layout as presented has been incorporated into the 60% Construction Document Set.

Date	Meeting Comment	Party	Resolution
2	Building Design: Guidance Suite - A window is requested on the north wall of guidance office #114 to view the parent pickup area to the north. FAI will review.		A window has been incorporated into the guidance room
3	Building Design: Typical Classroom Storage - The design accommodates an 8'-0" counter with base cabinet, one general and one teachers wardrobe. This setup will be observed at the upcoming West Bridgewater tour.		This arrangement has been incorporated into the 60% Construction Document Set. School Building Committee members toured the West Bridgewater School and felt this accommodated their classroom storage needs. Additional classroom storage can be purchase through the FFE budget.
<b>June 28, 2017 Interior Working Group</b>			
1	Community Common Spaces: The floor surface would be the "wood like" Luxury Vinyl Tile (LVT) tile in a driftwood/weathered wood tone. The group was favorable to this. FAI to study a two blend or three blend of different tones.		A blend of three tones is acceptable by the Interiors Group
2	Community Common Spaces: FAI described the window sills, counters and the lobby bench seat top to be a solid surface material in a granite tone. The group was favorable to this approach and FAI to provide samples.		Samples were provided at the July 17th Interiors meeting. Mid-gray granite color and tone was acceptable by the group.
3	Academic Neighborhoods - Grade Identity: The group was not favorable toward the orange/yellow grouping and felt an alternative should be presented. Members of the group thought "cranberry" could be a nice option - FAI to study and provide samples to the group.		The group decided the floor color will be cranberry and selected a pattern at the August 17th Interiors Working Group meeting
4	Academic Neighborhoods - Grade Identity: The mosaic is a combination of three colors. Members thought three may be too many. FAI clarified the mosaic is a field color in the corridor and the third color is to soften the look. FAI to provide full size tile samples to clarify.		Full size mock-ups of color and patterns were provided at the July 17th interiors meeting
5	Academic Neighborhoods - Grade Identity: There was discussion that re-grouping of classrooms at a later date is a possibility, i.e. fifth grade using fourth grade classrooms or vice versa due to population swing, identifying the fourth and fifth by color may be restrictive and potentially intimidating by students. FAI to study three concepts: one color concept between 4th and 5th grade, two "similar" color concept between 4th and 5th grade, and one unifying color between 4th and 5th with distinct neighborhood colors.		Full size mock-ups of color and pattern was provided at the July 17th interiors meeting. The 4th will have the color green as the primary and the 5th grade will have blue as the primary.

Date	Meeting Comment	Party	Resolution
July 6, 2017 Interior Working Group			
1	<p>7/6/2017</p> <p>Academic Neighborhoods: The group reviewed potential blends of Blues, Greens, and Cranberry colors that will from the "mosaic" corridor color field from two manufacturers, Johnsonite and Armstrong. The group selected the following for review with larger samples:</p> <p>Johnsonite: Azrock V-2618 (Platinum) V-276 (Berry Red) V-2617 (Amethyst) V-2604 (Morning Glory) V-250 (Hydrangea) V-271 (Nautical) V-258 (Riptide) V-238 (Cool Down) V-2616 (Lagoon) V-2614 (Granny Smith) V-241 (Springtime) V-247 (Ryegrass)</p>		<p>Full size mock-ups of larger samples were provided at the July 17th interiors meeting</p>
	<p>Armstrong: Premium Execelon 55135 (Sea Spray) 55130 (Wedge Wood) 55220 (Horizon) 55170 (Duchess Blue) 55110 (Colony)</p> <p>Armstrong: Imperial, RAVE 51946 (Gentian Blue) - RAVE 51882 (Serene Blue) - RAVE 51916 (Dutch Delft) - Imperial 51807 (Shadow Blue) - Imperial 51814 (Pomegranate Red) - Imperial 51943 (Cayenne Red - Imperial) 57505 (Rose Hip) - Imperial 51861 (Soft Warm Gray) - Imperial 51802 (Silver Green) - RAVE 51885 (Granny Smith) - RAVE 51938 (Willow Green) - Imperial 51881 (BlueBerry) - RAVE</p>		
July 17, 2017 Interior Working Group			
1			<p>No action items.</p>

Date	Meeting Comment	Party	Resolution
<b>August 17, 2017 Interior Working Group</b>			
1	The mosaic pattern floor tiles work well with the green (fourth grade) and blue (fifth grade). The third grade appears overwhelming and busy with the red tones. The group requested additional floor pattern be reviewed for the cranberry color at the third floor.		The group decided the floor color will be cranberry and selected a pattern at the August 17th Interiors Working Group meeting
<b>August 17, 2017 Bourne Fire Department</b>			
1	The fire department request the two egress gates illustrated on the west side of the play area fence have panic push hardware.		Panic push hardware has been incorporated into the design.
2	Fire Department requested exterior door to mechanical room for access to sprinkler riser.		The requested door has been incorporated into the design.
<b>September 14, 2017 Academic Leadership Meeting</b>			
1	Library: Two existing smartboards will be located on the west wall opposite the main circulation desk. Data and power will be provided under the base bid. The District must evaluate, select and store existing Smartboards to re-use.		Power and data have been incorporated into the design. Owner shall evaluate, select and store existing Smartboards for re-use.
2	Administration/Guidance: Office #109 and Conference Room #114 are to swap locations for improved communication and access between the offices. FAI will make the adjustment. The spaces are similar in size.		The requested room designation adjustment for Office #109 and Conference #114 has been incorporated into the design.
3	Existing Smartboards will be re-used in Conference Room #114 and Conference Room #118. Data and power will be provided under the base bid. The District must evaluate, select and store existing Smartboards for re-use.		Power and data have been incorporated into the design. Owner shall evaluate, select and store existing Smartboards for re-use.
4	The District requested 75 inch LED displays shall be provide in Conference Room #114 and Conference Room #118.		The requested LED displays have been incorporated into the design.
<b>September 14, 2017 Interiors Working Group Meeting</b>			
1	No action items.		

## Meeting Notes

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DATE: August 17, 2017

PROJECT: Bourne Public Schools

PROJECT NO: Bourne Peebles School – 1514.00

PRESENT: Jordan Geist – Director of Business Services  
Chief Norman Sylvester Jr – Bourne Fire Department  
Deputy Chief David Pelonzi – Bourne Fire Department  
Chris Garcia – GGD  
Dan Sarro – GGD  
Kent Kovacs – Flansburgh Architects

DISTRIBUTION: School Building Committee

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A series of discussions took place with the Bourne Fire Department on Thursday, August 17<sup>th</sup> regarding the development of new Peebles Elementary School.

The group reviewed the following updates to the site plan.

- Project phasing was described in regard to areas of construction to areas of “day to day” school activity. These areas will be separated with a construction fence and jersey barriers along driveways.
- Lane stripping of the main driveway loop surrounding the building was reviewed. The fire department is satisfied with the lane designation and stressed cars will be allowed to queue in the fire designated lanes but are not permitted to get out and leave the vehicle unattended.
- The fire department request the two egress gates illustrated on the west side of the play area fence have panic push hardware.
- FAI described the numbering of the exterior doors beginning from the main entry vestibule as "1" and rotating clockwise for subsequent numbering of doors. This follows the direction of the one-way loop road around the building. FAI stated the school address of 77 Trowbridge Road will be represented as a large scale "77" at the upper exterior corner of the gym, highly visible from Trowbridge Road.



Chris Garcia of GGD, the Fire protection engineer, provided an overview of the fire protection system.

- The school will be fully sprinklered with the exception of the elevator pit, elevator machine rooms, main electric room, and emergency electric room.
- The sprinkler system will have three wet type zones and one dry zone. Loading dock canopy will be protected with dry system. Other building canopies/overhangs are non-combustible and do not require sprinkler protection.
- The two-story classroom wing will have fire hose cabinets in stairs and in central corridor as previously requested by the Bourne Fire Department. A total of three fire department valves will be provided on each floor.
- Two fire department connections will be provided. Fire department connection is 4" Storz type. A sign to be provided on exterior facade over connection.
- Fire Department requested exterior door to mechanical room for access to sprinkler riser.
- Natural gas will be utilized for the mechanical equipment and kitchen. CO detectors to be provided outside of rooms with field fired equipment. Kitchen gas equipment will be interlocked with CO detector and monitored by the fire alarm system.
- The generator will be diesel.

Dan Sarro of GGD, the electrical engineer and fire alarm system designer, provided an overview of the fire alarm system.

- A new addressable fire alarm system to be provided with alarm transmission through the central station.
- The FACP to be located in Mechanical Room 166 in same location as sprinkler riser.
- Knox boxes to be located at the main entry and at the new exterior door to Mechanical Room 166.
- A BDA (Bi-Directional Amplifier) system to be used to amplify Fire Department radio.

## Meeting Notes

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DATE: August 17, 2017

PROJECT: Bourne Public Schools

PROJECT NO: Bourne Pebbles School – 1514.00

PRESENT: Jane Norton – Principal Pebbles Elementary Schools  
Julia Thompson – Director of Curriculum  
Kathy Anderson – SBC Member  
Donna Buckley – SBC Member / 4<sup>th</sup> grade teacher  
Natasha Scarpato – SBC Member  
Kent Kovacs – Flansburgh Architects

DISTRIBUTION: Interior Working Group

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A series of discussions took place with the Interiors Working Group on Thursday, August 17<sup>th</sup> regarding the development of interior design of the new Pebbles Elementary School.



### Entry Lobby

The blue accent wall, “Lazy Sunday”, will serve as a backdrop to a weathered plank-look bench. A wood-etched mural will depict the villages of Bourne.



## Central Stair

The blue accent wall, “Lazy Sunday”, will be located east of the stair with a full height yellow accent wall south of the stair. A wood bench runs along the bottom of the yellow wall.

## 3<sup>rd</sup> Grade Wing

Renderings and plan pattern plans were reviewed. The group was favorable to the VCT colors: Pomegranate Red and Cayenne Red. The accent wall paint color is Rhubarb.

## 4<sup>th</sup> Grade Wing

The group was favorable to the VCT colors: Silver Green, Granny Smith, and Willow Green. The accent wall paint color is Dill Weed.

## 5<sup>th</sup> Grade Wing

The group was favorable to the VCT colors: Dutch Delft, Serene Blue and Shadow Blue. The accent wall paint color is Lazy Sunday.

The mosaic pattern floor tiles work well with the green (fourth-grade) and blue (fifth-grade). The third grade appears overwhelming and busy with the red tones. The group requested additional floor pattern be reviewed for the cranberry color at the 3<sup>rd</sup> floor.

## Meeting Notes

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DATE: September 14, 2017

PROJECT: Bourne Public Schools

PROJECT NO: Bourne Peebles School – 1514.00

PRESENT: Jane Norton – Principal Peebles Elementary Schools  
Superintendent – Steven Lamarche  
Ryan Place – Student Service Director at Peebles  
Kent Kovacs – Flansburgh Architects

DISTRIBUTION: Academic Leadership Team

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A series of discussions took place with the Academic Leadership Team on Thursday, September 14<sup>th</sup> regarding the development of interior design of the new Peebles Elementary School.

### Library

- The school currently has 7,200 book volumes. The anticipated count from the district shall be 5,500 volumes. Library bookcases for the new design will accommodate 5,500 volumes. Tall book stacks will be provided at the hallway adjacent to the SPED on the west side of the library opposite the full height computer wall. The remaining book cases will be mobile in the center of the library space.
- LVT flooring shall be provided in the classroom portion of the library for durability and ease of cleaning. This allows flexibility in the types of activities that can occur in this space to occur.
- Two existing smartboards will be located on the west wall opposite the main circulation desk. Data and power will be provided under the base bid. The District must evaluate, select, and store existing Smartboards for re-use.
- A vinyl wall graphic (size: 20'-0" x 4'-0") depicting the various town scenes, i.e. landscape, bridges and villages will be located on the north wall. Graphic will be developed during the construction phase.

### Administration / Guidance

- Office #109 and Conference Room #114 are to swap locations for improved communication and access between the offices. FAI will make the adjustment. The spaces are similar in size.
- Existing smartboards will be re-used in Conference room #114 and Conference #118. Data and power will be provided under the base bid. The District must evaluate, select, and store existing Smartboards for re-use.

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- The district requested 75 inch LED displays shall be provided in Conference room #114 and Conference #118
- A counter with base and upper cabinets will be provided on the blank wall opposing the administrative toilets

## Gymnasium

- The projector and screen will be located on the north wall of the gym, opposite the bleachers. These items will be relocated to the stage platform if the Gymnasium Platform Opening, currently a bidding alternate item, is incorporated into the project.

## Meeting Notes

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DATE: September 14, 2017

PROJECT: Bourne Public Schools

PROJECT NO: Bourne Peebles School – 1514.00

PRESENT: Jane Norton – Principal Peebles Elementary Schools  
Julia Thompson – Director of Curriculum  
Kathy Anderson – SBC Member  
Donna Buckley – SBC Member / 4<sup>th</sup> grade teacher  
Natasha Scarpato – SBC Member  
Kent Kovacs – Flansburgh Architects

DISTRIBUTION: Interior Working Group

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A series of discussions took place with the Interiors Working Group on Thursday, September 14<sup>th</sup> regarding the development of interior design of the new Peebles Elementary School.

### Library

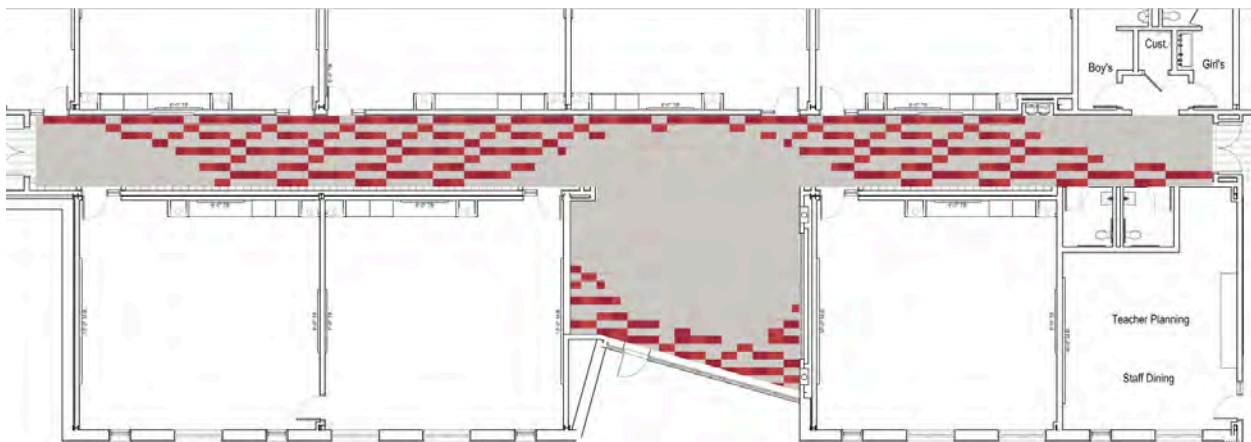
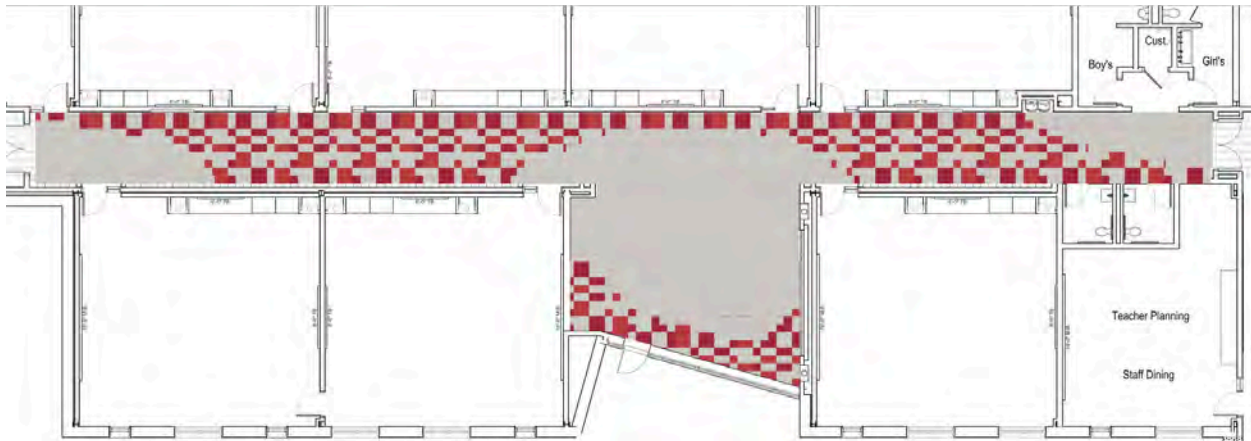
- Book volumes were touch upon following the previous Academic Leadership team meeting. Tall book stacks will be provided at the hallway adjacent to the SPED on the west side of the library opposite the full height computer wall. The remaining book cases will be mobile in the center of the library space.
- The group liked the idea of LVT with the wood tone being introduced at the open classroom area.
- The group decided to remove the “sea foam green” accent wall on the north wall. This wall will be “Passive - white” in color with the vinyl wall graphic.
- The group was favorable to the wood tone along the fascia at the “pop-up”. The acoustic blades shall remain white.

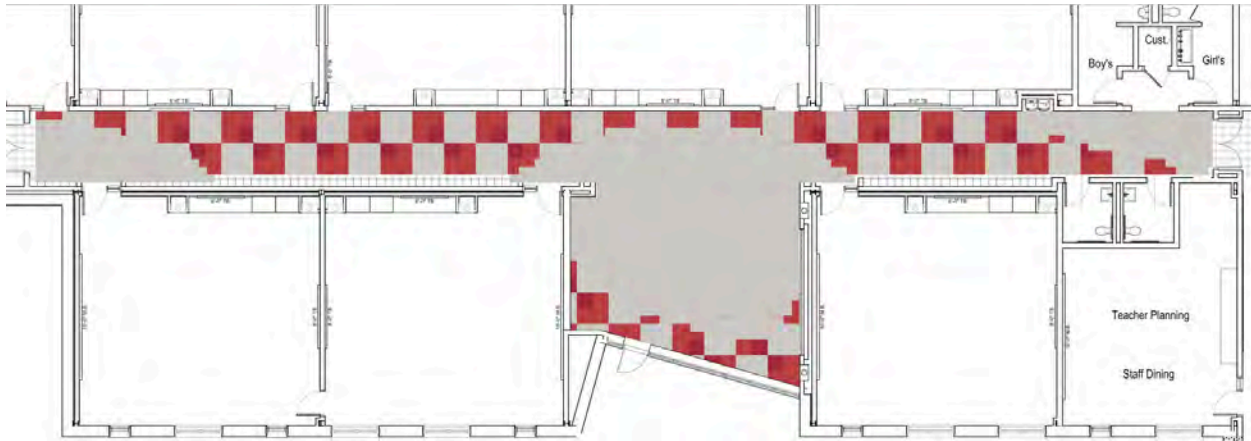
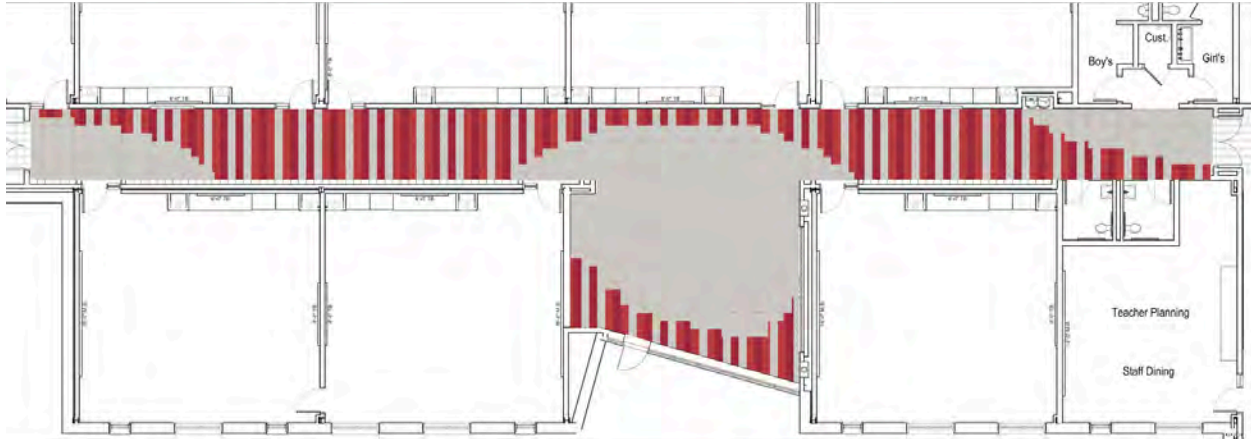
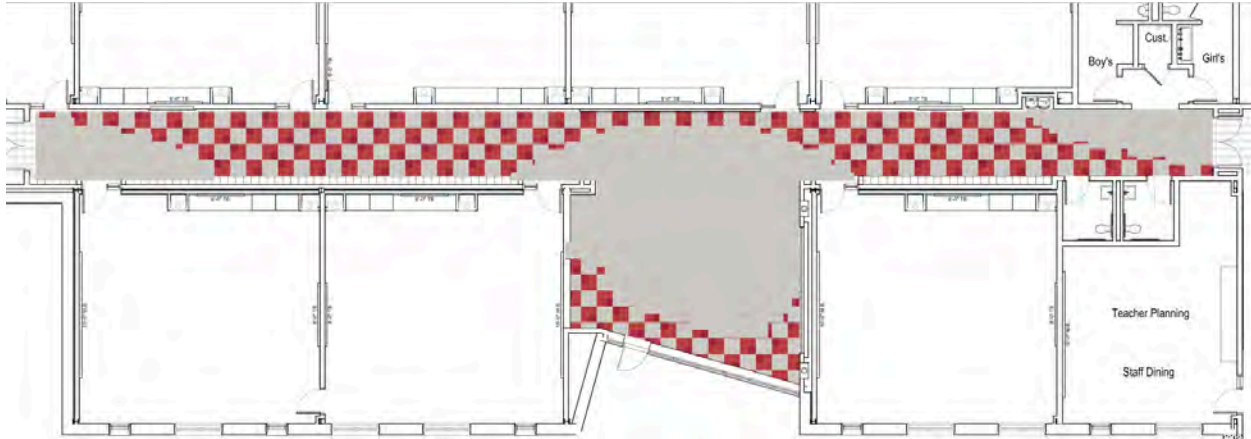
### Central Stair

- The stainless-steel netting mock-up was reviewed by members that were unable to attend the School Building Committee meeting. The group was favorable and thought the netting running vertically was the right choice.
- The group liked the full-height yellow accent wall to the south and the full-height blue accent wall to east of the stair
- The group felt the Holbrook Bell would be fine located under the open stair landing. It was discussed the base should be painted dark gray or black.

## 3rd Grade Wing

- Various floor patterns were reviewed using 50% color (cranberry) and 50% neutral (light gray). The group decided the floor pattern overlaid on the West Bridgewater school photo would be the best balance and pattern.









Interior Photograph of the West Bridgewater Middle-Senior High School.

A similar floor pattern will be incorporated at the third-grade wing. The color was adjusted in the photograph to reflect a “cranberry tone”.