

**PROJECT MINUTES**

Project:	New W. Edward Balmer Elementary School	Project No.:	17020
Prepared by:	Joel Seeley	Meeting Date:	4/24/19
Re:	School Building Committee Meeting	Meeting No:	42
Location:	High School Media Center	Time:	6:30pm
Distribution:	School Building Committee Members, Attendees (MF)		

Attendees:

PRESENT	NAME	AFFILIATION	VOTING MEMBER
✓	Joseph Strazzulla	Chairman, School Building Committee	Voting Member
✓	Melissa Walker	School Business Manager	Voting Member
✓	Alicia Cannon	Representative of the Board of Selectmen	Voting Member
✓	Michael LeBrasseur	Chairman, School Committee	Voting Member
✓	Paul Bedigian	Representative of the Building, Planning, Construction Committee	Voting Member
✓	Steven Gogolinski	Representative of the Finance Committee	Voting Member
✓	Jeffrey Tubbs	Community Member with building design and/or construction experience	Voting Member
✓	Peter L'Hommedieu	Community Member with building design and/or construction experience	Voting Member
✓	Jeff Lundquist	Community Member with building design and/or construction experience	Voting Member
	Andrew Chagnon	Community Member with building design and/or construction experience	Voting Member
✓	Spencer Pollock	Parent Representative	Voting Member
	Adam Gaudette	Town Manager	Non-Voting Member
✓	Amy McKinstry	Interim Superintendent of Schools	Non-Voting Member
✓	Richard Maglione	Director of Facilities	Non-Voting Member
✓	Karlene Ross	Principal, W. Edward Balmer Elementary School	Non-Voting Member
	Jill Healy	Principal, Northbridge Elementary School	Non-Voting Member
✓	Gregory Rosenthal	Director of Pupil Personnel Services	Non-Voting Member
✓	Lee Dore	D & W, Architect	
	Thomas Hengelsberg	D & W, Architect	
	David Fontaine	Fontaine Bros, CM	
✓	David Fontaine, Jr	Fontaine Bros, CM	
✓	David Barksdale	Fontaine Bros, CM	
✓	Jim Mauer	Fontaine Bros, CM	
	Joel Kent	Fontaine Bros, CM	
✓	Joel Seeley	SMMA, OPM	

Item #	Action	Discussion
42.1	Record	Call to Order, 6:30 PM, meeting opened.
42.2	Record	J. Strazzulla announced the meeting will be video and audio recorded with live broadcast and future re-broadcast.
42.3	Record	A motion was made by P. Bedigian and seconded by M. LeBrasseur to approve the 4/2/19 School Building Committee meeting minutes. Motion passed unanimous by those attending, one abstention.
42.4	Record	<p>J. Seeley distributed and reviewed the Engineering Services Agreement with Mass Save, attached, in the amount of \$6,250 for the Town's cost share of the MassSave engineering services to be funded out of Utility Company Fees Budget ProPay Code 0601-0000, which has a balance of \$200,000.</p> <p>A motion was made by A. Cannon and seconded by P. Bedigian to approve the Engineering Services Agreement and recommend signature by A. Cannon. No discussion, motion passed unanimous.</p>
42.5	Record	<p>J. Seeley distributed and reviewed the Engineering Design Deposit Agreement with Verizon, attached, in the amount of \$1,000 for Verizon's engineering services to be funded out of Utility Company Fees Budget ProPay Code 0601-0000, which has a balance of \$193,750.</p> <p>A motion was made by M. LeBrasseur and seconded by A. Cannon to approve the Engineering Design Deposit Agreement and recommend signature by A. Cannon. No discussion, motion passed unanimous.</p>
42.6	J. Seeley	<p>J. Seeley distributed and reviewed the updated 60% Construction Documents Meetings and Agenda Schedule and the updated Project Schedule, both attached.</p> <p>Committee Discussion:</p> <ol style="list-style-type: none"> <li>1. M. LeBrasseur asked what type of construction would be commencing in June 2019? <i>D. Fontaine described the construction work, awarded as part of the Early Site Package, that would commence in June, namely installation of the construction fence and enabling work to allow for the operation of the existing school.</i></li> <li>2. J. Strazzulla asked that the draft 90% Construction Documents Meetings and Agenda Schedule be developed for the next Committee meeting. <i>J. Seeley will develop the draft schedule for the next Committee meeting.</i></li> </ol>
42.7	Record	L. Dore distributed and reviewed the specification describing the training requirements for the school department's maintenance staff, including video-taping, attached.
42.8	Record	L. Dore distributed and reviewed the turning radii for all parking lot exits being sufficient to not force the turning car into the oncoming lane of traffic, attached.
42.9	Record	L. Dore distributed and reviewed the Detailed Cut and Fill Analysis by material, attached.
42.10	T. Hengelsberg	T. Hengelsberg to provide existing top soil characterization for gradient and nutrient enhancements for Committee review.
42.11	Record	L. Dore presented the sidewalk layouts across the site, attached.
42.12	Record	L. Dore presented the design and cost options for routing the 36 inch storm line, attached.

Item #	Action	Discussion
		<p>Committee Discussion:</p> <ol style="list-style-type: none"> <li>1. M. LeBrasseur asked how durable is the pipe material under the building? <i>L. Dore indicated the material is ductile iron and very durable.</i></li> <li>2. P. Bedigian asked should the pipe under the building be concrete encased? <i>L. Dore indicated the civil engineer does not recommend, the pipe is not under any load and is 13 feet below the building slab.</i></li> </ol>
42.13	Record	L. Dore presented the cost analysis, a \$259,000 add, to eliminate the 2-Hour Fire Wall and Horizontal Sliding Fire Door and replace with full fire-proofing of the structure, attached. The Committee provided direction that this option will not be pursued.
42.14	Record	L. Dore indicated the STC for the Stage Operable Wall is 50 and a CMU wall is STC is 52.
42.15	Record	L. Dore distributed and reviewed the code interpretation for their Code Consultant that the three-story shaft is not an Atrium.
42.16	J. Seeley	J. Seeley to coordinate with K. Ross, T. Hengelsberg and J. Mauer to schedule meetings with New Incoming Parents, Teachers, and the Surrounding Neighborhood, to review the traffic and site conditions during construction once the site permitting is completed.
42.17	R. Maglione	L. Dore provided an update on the Proprietary Specifications, attached. Section 230010 Building Energy Management System will not be proprietary. Sections 272000 Data Communication and Section 281000 Integrated Electronic Security System are under review by the District to determine if they are to be proprietary and R. Maglione will provide direction.
42.18	Record	L. Dore reviewed an option to provide a divider between the bathroom sinks in the upper grades to separate the boys and girls in follow-up to the Response to Owner's Comments to the Design Development documents, attached. The Committee provided direction that this option will not be pursued.
42.19	L. Dore	L. Dore to review fence or netting options for the left field line of the baseball field parallel to Crescent Street.
42.20	L. Dore	<p>L. Dore reviewed the follow-up items to the Listing of Value Engineering Items, attached.</p> <p>Committee Discussion:</p> <ol style="list-style-type: none"> <li>1. L. Dore to confirm if the VE Item 1 and 2, cost for the "SecureShade" is the net add, after factoring in the deletion of the manual shade at each location and confirm the status of the "SecureShade" sample installation.</li> <li>2. L. Dore confirmed VE Item 3 Digital Site Sign is allowed by Zoning Bylaw. No action taken.</li> <li>3. L. Dore presented VE Item L4.3 Fencing options. A motion was made by J. Lundquist and seconded by S. Pollock to accept VE Item L4.3 to "repair-only" the existing fence behind the Overlook Street properties. After discussion, motion passed unanimous.</li> <li>4. L. Dore presented VE Item A01 Utility Brick in lieu of Standard Modular Brick. A motion was made by J. Lundquist and seconded by P. L'Hommedieu to accept VE Item A01 Utility Brick in lieu of Standard Modular Brick. After discussion, motion passed 6 in favor and 4 against.</li> </ol>

Item #	Action	Discussion
		<p>5. L. Dore presented VE Item 17 Split Face CMU in lieu of Cast Stone Base. A motion was made by J. Lundquist and seconded by P. L'Hommedieu to accept VE Item 17 Split Face CMU in lieu of Cast Stone Base. After discussion, motion did not pass with 5 in favor and 5 against.</p> <p>6. L. Dore reviewed VE Item 28 in-place mock-up in lieu of stand-alone mock-up. A motion was made by J. Lundquist and seconded by S. Gogolinski to accept VE Item 28 in-place mock-up in lieu of stand-alone mock-up. After discussion, motion did not pass with 2 in favor and 8 against.</p> <p>7. L. Dore reviewed VE Item 27 reduce glazing in Stair 5. A motion was made by J. Lundquist and seconded by P. L'Hommedieu to accept VE Item 27 reduce glazing in Stair 5. After discussion, motion did not pass with 5 in favor and 5 against.</p> <p>8. L. Dore reviewed VE Item E01 lightning preventor in lieu of lightning protection system. No action taken.</p> <p>9. L. Dore reviewed VE Item 18 roof davit. Roof davit to be FFE item, if needed.</p> <p>10. L. Dore reviewed VE Item 33 sloped granite in lieu of Cape Cod berm curbing. A motion was made by A. Cannon and seconded by P. L'Hommedieu to accept VE Item 33 sloped granite in lieu of Cape Cod berm curbing. After discussion, motion passed unanimously.</p> <p>11. L. Dore asked for reconsideration of prior approval of VE Item A12 operable partition in lieu of roll-down gymnasium curtain. A motion was made by A. Cannon and seconded by S. Gogolinski to rescind prior approval of VE Item A12 operable partition in lieu of roll-down gymnasium curtain. After discussion, motion passed 7 in favor and 3 against.</p> <p>12. L. Dore to obtain feedback from other D&amp;W school projects regarding their experience with the "Won-Door" horizontal sliding fire door, expected service life, and approximate annual maintenance and testing costs.</p> <p>J. Seeley indicated that the approved VE Items will be incorporated into the 60% construction documents. At the time of estimating the 60% construction documents, additional VE will be undertaken if needed to maintain budget. If the project is on or under budget and additional VE are requested, they would be incorporated as an additional service. J. Lundquist indicated additional VE should be reviewed at the 60% construction documents estimate and there may be value to incorporate even with the additional cost.</p>
42.21	J. Seeley	<p>D. Fontaine provided the Construction Cost Control Budget Breakdown for the Early Site Package, Early Concrete and Steel Package, and GMP Approval for the whole project and the Proposed list of Non-Trade Contractors for the Early Site Package.</p> <p>Committee Discussion:</p> <p>1. P. L'Hommedieu indicated there is some risk in projects with early release packages with follow-on packages being over budget after award and construction commencement of the initial packages, so developing as much contingency buffer thru the VE process is a good step.</p>

Item #	Action	Discussion
		<p>2. J. Strazzulla asked can the Committee negotiate with the bidders if a package is over budget?  <i>P. L'Hommedieu indicated there is no negotiating with the Trade Contractors unless less than three bids are received and they are over-budget. The CM can negotiate with Non-Trade Contractors.</i></p> <p>3. A motion was made by J. Tubbs and seconded by A. Cannon to appoint P. L'Hommedieu, J. Lundquist and A. Chagnon to the Non-Trade Contractor Review Committee. After discussion, motion passed unanimous</p> <p>J. Seeley to schedule a meeting with the D&amp;W, FBI, SMMA and the Non-Trade Contractor Review Committee to review the proposed list of Non-Trade Contractors for the Early Site Package.</p>
42.22	Committee	<p>J. Seeley provided an overview of the Trade Contractor Prequalification process for the Early Concrete and Steel Package and Final Package.</p> <p>The Trade Prequalification Committee to be appointed at the next Committee meeting.</p>
42.23	Record	<p><b>Site Permitting</b> - J. Seeley provided an overview of the site permitting as follows:</p> <p><b>Conservation Commission</b></p> <p>1. NOI Hearing held 4/17/19, continued to 5/1/19. The Town's peer engineering firm is reviewing the submittal and depending upon when the comments are received, the hearing may be continued to 5/15/19.</p> <p><b>Planning Board</b></p> <p>1. Site Plan Approval Hearing held 4/23/19, continued to 5/14/19. Comments on storm drainage, planting and fencing along the east property line were discussed.</p> <p>2. CDM, the town's consultant, is performing the sewage capacity analysis study.</p> <p>3. The Zoning Analysis is under review for determination on a waiver or variance process.</p>
42.24	Record	<b>Committee Questions</b> - none
42.25	Record	<p><b>Old or New Business</b></p> <p>1. M. LeBrasseur indicated the School Committee voted the name for the new school – Northbridge Elementary School.</p>
42.26	Record	Next <b>SBC Meeting: 5/8/19 at 6:30 pm</b> at the High School Media Center. The anticipated agenda items are reviewing design refinements, MSBA comments on the 60% Construction Document submission, construction logistics and site permitting update.
42.27	Record	A Motion was made by A. Cannon and seconded by P. Bedigian to adjourn the meeting. No discussion, motion passed unanimous.

Attachments: Agenda, Engineering Services Agreement, Engineering Design Deposit Agreement, updated 60% Construction Documents Meetings and Agenda Schedule, updated Project Schedule, Detailed Cut and Fill Analysis, Proposed list of Non-Trade Contractors for the Early Site Package, Powerpoint



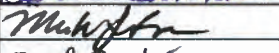





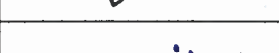












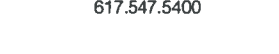


The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes

## PROJECT MEETING SIGN-IN SHEET

Project: New W. Edward Balmer Elementary School  
 Prepared by: Joel Seeley  
 Re: School Building Committee Meeting  
 Location: High School Media Center  
 427 Linwood Avenue, Whitinsville, MA

Project No.: 17020  
 Meeting Date: 4/24/2019  
 Meeting No: 42  
 Time: 6:30pm

Distribution: Attendees, (MF)

SIGNATURE	ATTENDEES	EMAIL	AFFILIATION
	Joseph Strazzulla	<a href="mailto:jstrazzulla@nps.org">jstrazzulla@nps.org</a>	Chairman, School Building Committee
	Melissa Walker	<a href="mailto:mwalker@nps.org">mwalker@nps.org</a>	School Business Manager, MCPPO
	Alicia Cannon	<a href="mailto:cannonhome0927@gmail.com">cannonhome0927@gmail.com</a>	Member, Board of Selectmen, CEO
	Michael LeBrasseur	<a href="mailto:mlebrasseur@nps.org">mlebrasseur@nps.org</a>	Chairman, School Committee
	Paul Bedigian	<a href="mailto:bedigianps@cdmsmith.com">bedigianps@cdmsmith.com</a>	Representative of the Building, Planning, Construction Committee
	Steven Gogolinski	<a href="mailto:steve@gogolinskicpa.com">steve@gogolinskicpa.com</a>	Representative of the Finance Committee
	Jeffrey Tubbs	<a href="mailto:jtubbs@charter.net">jtubbs@charter.net</a>	Member of community with architecture, engineering and/or construction experience
	Peter L'Hommedieu	<a href="mailto:plhommedieu@shawmut.com">plhommedieu@shawmut.com</a>	Member of community with architecture, engineering and/or construction experience
	Jeff Lundquist	<a href="mailto:jlundquist@therichmondgroup.com">jlundquist@therichmondgroup.com</a>	Member of community with architecture, engineering and/or construction experience
	Andrew Chagnon	<a href="mailto:achagnon@vertexeng.com">achagnon@vertexeng.com</a>	Member of community with architecture, engineering and/or construction experience
	Spencer Pollock	<a href="mailto:spencerpollock22@gmail.com">spencerpollock22@gmail.com</a>	Parent Representative
	Adam Gaudette	<a href="mailto:agaudette@northbridgema.org">agaudette@northbridgema.org</a>	Town Manager
	Amy McKinstry	<a href="mailto:amckinstry@nps.org">amckinstry@nps.org</a>	Interim Superintendent
	Richard Maglione	<a href="mailto:rmaglione@nps.org">rmaglione@nps.org</a>	Building Maintenance Local Official
	Karlene Ross	<a href="mailto:krass@nps.org">krass@nps.org</a>	Principal, W. Edward Balmer Elementary School
	Jill Healy	<a href="mailto:jhealy@nps.org">jhealy@nps.org</a>	Principal, Northbridge Elementary School
	Gregory Rosenthal	<a href="mailto:groenthal@nps.org">groenthal@nps.org</a>	Director of Pupil Personnel Services
	Lee P. Dore	<a href="mailto:lpdore@DoreandWhittier.com">lpdore@DoreandWhittier.com</a>	Dore & Whittier Architects
	Thomas Hengelsberg	<a href="mailto:thengelsberg@DoreandWhittier.com">thengelsberg@DoreandWhittier.com</a>	Dore & Whittier Architects
	David Fontaine, Jr.	<a href="mailto:dir@fontainebros.com">dir@fontainebros.com</a>	Fontaine Bros., Inc.
	David Barksdale	<a href="mailto:dbarksdale@fontainebros.com">dbarksdale@fontainebros.com</a>	Fontaine Bros., Inc.
	Jim Mauer	<a href="mailto:jmauer@fontainebros.com">jmauer@fontainebros.com</a>	Fontaine Bros., Inc.
	Joel Kent	<a href="mailto:jkent@fontainebros.com">jkent@fontainebros.com</a>	Fontaine Bros., Inc.
	Joel Seeley	<a href="mailto:jseeley@smma.com">jseeley@smma.com</a>	SMMA

## Agenda

Project:	W. Edward Balmer Elementary School Feasibility Study	Project No.:	17020
Re:	School Building Committee Meeting	Meeting Date:	4/24/2019
Meeting Location:	High School Media Center	Meeting Time:	6:30 PM
	427 Linwood Avenue, Whitinsville, MA	Meeting No.	42
Prepared by:	Joel G. Seeley		
Distribution:	Committee Members (MF)		

---

1. Call to Order
2. Public Comments
3. Approval of Minutes
4. Approval of Invoices and Commitments
5. Review Overall Construction Document Phase Schedule
6. Review 60% Construction Document Schedule
7. Address Prior Minutes Action Items
8. Follow-up to Owner's Comments
9. Follow-up to VE Pricing
10. Proprietary Materials Update
11. Early Site Package Estimate, Timeline and Non-Trade Bidders Review
12. Trade Contractor Prequalification Committee
13. Site Permitting Update
  - Conservation Commission
  - Planning Board
14. New or Old Business
15. Committee Questions
16. Next Meeting: May 8, 2019
17. Adjourn



Project Management

## Memorandum

To:	School Building Committee	Date:	4/17/2019
From:	Joel G. Seeley	Project No.:	17020
Project:	W. Edward Balmer Elementary School		
Re:	Engineering Services for MassSave Utility Program Incentives		
Distribution:	(MF)		

---

### Engineering Services for MassSave Utility Program Incentives

FEE: \$6,250.00

REASON: Provide engineering services by MassSave for Utility Program Incentives to analyze the potential energy savings, energy penalties and costs associated with each of the identified ECM measures.

BUDGET AVAILABILITY: This Amendment would be funded out of Utility Company Fees Budget, ProPay Code 0601-0000 which has the current balance of \$200,000.00

---

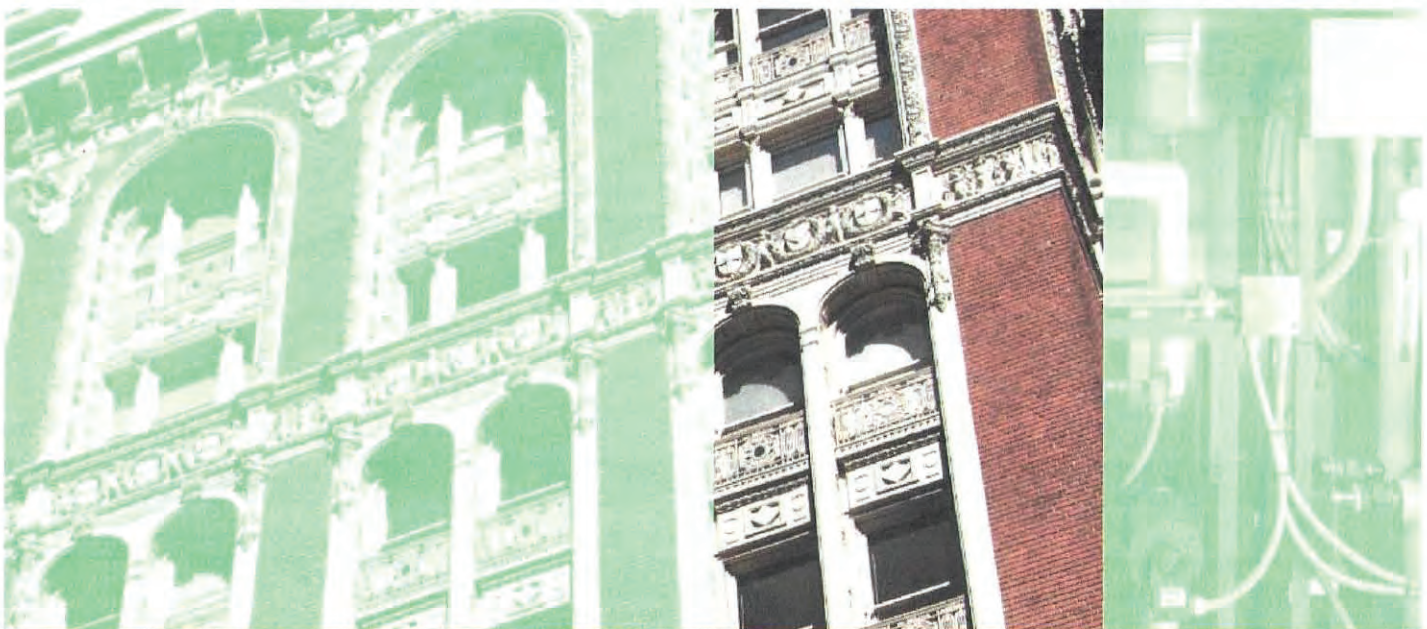
1000 Massachusetts Avenue  
Cambridge, MA 02138  
617.547.5400

[www.smma.com](http://www.smma.com)

---

# 2017

## Engineering Services



### Electric Program Administrators



Cape Light Compact  
Tel: 1-800-797-6699  
[www.capelightcompact.org](http://www.capelightcompact.org)  
[efficiency@capelightcompact.org](mailto:efficiency@capelightcompact.org)

**EVERSOURCE**

Eastern Massachusetts:  
Tel: 1-844-887-1400  
[www.eversource.com](http://www.eversource.com)  
[efficiencyma@eversource.com](mailto:efficiencyma@eversource.com)

Western Massachusetts:  
Tel: 1-844-887-1400  
[www.eversource.com](http://www.eversource.com)  
[efficiencywmass@eversource.com](mailto:efficiencywmass@eversource.com)

**nationalgrid**  
HERE WITH YOU. HERE FOR YOU.

National Grid  
Tel: 1-800-787-1706  
[www.nationalgridus.com](http://www.nationalgridus.com)  
[efficiency@nationalgrid.com](mailto:efficiency@nationalgrid.com)

**Unitil**  
life

Unitil  
Tel: 1-888-301-7700  
[www.unitil.com](http://www.unitil.com)  
[efficiency@unitil.com](mailto:efficiency@unitil.com)

### Gas Program Administrators



Berkshire Gas  
Tel: 1-800-944-3212  
[www.berkshiregas.com](http://www.berkshiregas.com)  
[efficiency@berkshiregas.com](mailto:efficiency@berkshiregas.com)

**Columbia Gas of Massachusetts**  
A NiSource Company

Columbia Gas of Massachusetts  
Tel: 1-800-232-0120  
[www.ColumbiaGasMA.com](http://www.ColumbiaGasMA.com)  
[efficiency@columbiagasma.com](mailto:efficiency@columbiagasma.com)

**EVERSOURCE**

Eversource Energy  
Tel: 1-844-887-1400  
[www.eversource.com](http://www.eversource.com)  
[efficiencyma@eversource.com](mailto:efficiencyma@eversource.com)



Liberty Utilities  
Tel: 1-508-324-7811  
[www.libertyutilities.com](http://www.libertyutilities.com)  
[efficiency@libertyutilities.com](mailto:efficiency@libertyutilities.com)

**nationalgrid**  
HERE WITH YOU. HERE FOR YOU.

National Grid  
Tel: 1-800-787-1706  
[www.nationalgridus.com](http://www.nationalgridus.com)  
[efficiency@nationalgrid.com](mailto:efficiency@nationalgrid.com)

**Unitil**  
life

Unitil  
Tel: 1-888-301-7700  
[www.unitil.com](http://www.unitil.com)  
[efficiency@unitil.com](mailto:efficiency@unitil.com)

**ALL FIELDS ON THIS PAGE ARE REQUIRED TO COMPLETE YOUR APPLICATION**

**Indicate the Program Administrator for this Application**

☐ Berkshire Gas ☐ Cape Light Compact ☐ Columbia Gas ☐ Eversource ☐ Liberty Utilities ☒ National Grid ☐ Unitil

**CUSTOMER/ACCOUNT HOLDER INFORMATION**

COMPANY NAME Northbridge Public Schools		CONTACT PERSON Melissa Walker		APPLICATION DATE April 24, 2019
INSTALL SITE W. Edward Balmer Elem. School (21 Crescent Street)		PHONE 508-234-8156	FAX NUMBER 508-234-8469	
EMAIL ADDRESS		SQUARE FEET (COVERED BY THIS APPLICATION) 167,233		
STREET ADDRESS 21 Crescent Street	CITY Whitinsville	STATE MA	ZIP 01588	
MAILING ADDRESS (IF DIFFERENT) 87 Linwood Avenue	CITY Whitinsville	STATE MA	ZIP 01588	
ELECTRIC COMPANY NAME National Grid		ELECTRIC ACCOUNT NUMBER		
GAS COMPANY NAME Eversource		GAS ACCOUNT NUMBER		

**BUILDING TYPE (PLEASE PLACE "X" IN APPROPRIATE BALLOT BOX)**

<input type="checkbox"/> ASSEMBLY	<input type="checkbox"/> FAST FOOD	<input type="checkbox"/> HOTEL	<input type="checkbox"/> MULTI STORY RETAIL	<input type="checkbox"/> RELIGIOUS	<input type="checkbox"/> SMALL RETAIL
<input type="checkbox"/> AUTOMOTIVE	<input type="checkbox"/> FULL SERVICE RESTAURANT	<input type="checkbox"/> LARGE REFRIGERATED SPACE	<input type="checkbox"/> MULTIFAMILY HIGH-RISE	<input checked="" type="checkbox"/> K-12 SCHOOL	<input type="checkbox"/> UNIVERSITY
<input type="checkbox"/> BIG BOX	<input type="checkbox"/> GROCERY	<input type="checkbox"/> LARGE OFFICE	<input type="checkbox"/> MULTIFAMILY LOW-RISE	<input type="checkbox"/> SMALL OFFICE	<input type="checkbox"/> WAREHOUSE
<input type="checkbox"/> COMMUNITY COLLEGE	<input type="checkbox"/> HEAVY INDUSTRIAL	<input type="checkbox"/> LIGHT INDUSTRIAL	<input type="checkbox"/> OTHER:		
<input type="checkbox"/> DORMITORY	<input type="checkbox"/> HOSPITAL	<input type="checkbox"/> MOTEL	0		

**PAYMENT METHOD (PAYEE MUST SUBMIT A W-9 FORM)**

PAYMENT TO: <input checked="" type="checkbox"/> CUSTOMER	CUSTOMER — TAX ID# (REQUIRED)	VENDOR/INSTALLER — TAX ID# (REQUIRED IF RECEIVING INCENTIVE)
<input type="checkbox"/> VENDOR/INSTALLER		
CHECK PAYABLE TO:	CUSTOMER COMPANY TYPE: <input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT	VENDOR COMPANY TYPE: <input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT

**ENGINEER INFORMATION**

ENGINEERING FIRM SMMA	CONTACT NAME Martine Dion		
STREET ADDRESS 1000 Massachusetts Avenue	CITY Cambridge	STATE MA	ZIP 02138
PHONE 857.492.1517	EMAIL ADDRESS mdion@smma.com		

**PROGRAM**

☒ NEW CONSTRUCTION ☐ RETROFIT ☐ SMALL BUSINESS

**END USE (check all that apply)**

<input checked="" type="checkbox"/> LIGHTING	<input checked="" type="checkbox"/> HVAC	<input type="checkbox"/> MOTOR	<input type="checkbox"/> PROCESS	<input type="checkbox"/> REFRIGERATION	<input type="checkbox"/> COMPRESSED AIR
<input checked="" type="checkbox"/> VARIABLE SPEED DRIVES	<input type="checkbox"/> ENERGY MANAGEMENT SYSTEM	<input type="checkbox"/> OTHER:			

**PROJECT INFORMATION**

**BRIEFLY DESCRIBE PROJECT:**

The new W. Edward Balmer Elementary School is a 2 story 167,233 SF new school facility located at 21 Crescent Street in Whitinsville, MA. The new school includes classrooms, a gymnasium, a cafeteria and auditorium, administrative offices and auxiliary spaces.

SMMA proposes to analyze the potential energy savings, energy penalties and costs associated with each of the identified ECM measures. It is our understanding that this analysis will be conducted under the National Grid Integrated Design (ID) incentives program and that National Grid will screen each ECM measure based on the energy savings included in the study. We will provide an Integrated Design (ID) TA Study report to support the new W. Edward Balmer Elementary School applications for utility incentives. A description of each ECM measure and of the analytical approach is included in the attached proposal letter.

## Engineering Services Project Information and Deliverables

Detailed proposal must include a brief description of the following for each Energy Efficiency Measure (EEM):

- Existing Systems and proposed changes (retrofit)
- Base case / code assumptions and proposed system (New Construction)
- Estimated study cost per task
- Estimated hours to complete each task and the staff assigned to each task
- Estimated schedule to complete each task
- Proposed methodology for analysis
- Estimated potential energy savings

After approval, Engineer will supply the Program Administrator (PA) with the following deliverables:

- Draft report for review & comment (include estimated costs, energy and demand savings by EEM)
- Final report (both hard copy and electronic copy) upon sign off of Draft Report
- Electronic copies of all appendices, building simulation outputs and any additional supporting documentation
- Completed Energy Efficiency Program application forms
- Completed MRD (Minimum Requirements Document)

## TERMS AND CONDITIONS

### 1. Customer Eligibility

The Program is available to all non-residential customers in the service territory of either Berkshire Gas Company, or Cape Light Compact, or Columbia Gas of Massachusetts, or National Grid, or Liberty Utilities, or NSTAR Electric & Gas Corporation, or Unitil, or Western Massachusetts Electric Company, ("the PA") that contribute to the energy conservation fund.

### 2. Incentives

Subject to these Terms and Conditions (T&Cs), eligible Customers may qualify for incentives from the PA for the installation of those conservation measures ("EEMs") described within this Engineering Service Request that are approved by the PA.

### 3. Program Changes, Suspension & Cancellation.

The Program and these T&Cs may be changed by the PA at any time without notice. Pre-approved applications, however, will be processed to completion under the Terms and Conditions in effect at the time of the pre-approval by the PA. Submission of a completed application does not entitle the Customer to program participation. Entitlement to program participation can only occur after the PA has signed a copy of the application and granted pre-approval.

### 4. Customer Application and Analysis.

The PA reserves the right to reject or modify any calculations, based on the PA's own analysis.

### 5. Pre-Approval and Pre-Installation

The PA is not bound to pay any potential incentives unless the PA pre-approves the EEMs proposed by the Customer and completes a satisfactory pre-installation survey of the Customer's facilities.

### 6. Authorization

The PA will have no obligation to pay incentives for any EEMs installed prior to the issuance of the PA's written authorization.

### 7. Limited Scope of Review

Review of the design and installation of the EEMs is limited solely to determining whether program conditions have been met and shall not constitute an assumption by the PA of any liability with respect to the EEMs.

### 8. Vendor Selection

The PA has the right not to allow a vendor or contractor to participate in this program.

### 9. Removal of Equipment

The Customer agrees, as a condition of participation in the program, to remove and dispose of the equipment being replaced by the EEMs in accordance with all laws, rules, and regulations. The Customer agrees not to install any of this equipment in the service territory of the PA or its affiliates.

### 10. Review of Specifications, Submittals and Drawings

The Customer will provide the PA with a copy of the specifications for the construction of the Facility that will be provided to its construction contractors. Such specifications must include the EEMs. The PA may refuse to pay incentives if the specifications do not adequately provide for installation of the EEMs consistent with good engineering and energy-efficient design practices. Customer will, upon request by the PA, provide a copy of the as-built drawings and equipment submittals for the Facility. The PA may refuse to pay incentives if the final submittals and drawings do not adequately reflect the installation of the EEMs consistent with the original design intent as identified on the Customer application and worksheets.

### 11. Limitation of Liability

The PA's liability under this agreement will be limited to paying the incentive specified in this agreement. Neither the PA nor any of its affiliates shall be liable to the Customer for any direct, indirect, consequential or incidental damages regardless of the theory of recovery, caused by or arising from any activities associated with this program.

### 12. No Warranties

The PA does not endorse, guarantee, or warrant any particular manufacturer or product, and the PA EXPRESSLY DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE for any product or services. The Customer acknowledges that neither the PA nor any of its consultants are responsible for assuring that the design, engineering and construction of the Facility or installation of the EEMs is proper or complies with any particular laws (including patent laws), codes, or industry standards. The PA makes no representations or warranties of any kind regarding the results to be achieved by the EEMs or the adequacy or safety of such measures.

### 13. Obligations of the Parties

Customer acknowledges that Vendor is not an agent, contractor or subcontractor of the PA, and is an independent contractor engaged by the Customer, and that the PA does not manage or control the Vendor's performance. The PA shall have no liability for Vendor's failure or delay to perform, or for failure of the EEMs to function, or for any personal injury (including death) or property damage caused by Vendor or the EEMs, and Customer agrees to waive and release all claims related to the foregoing against the PA and its affiliates. The PA shall have no obligation to perform any of the Vendor's work or to maintain, remove, repair or replace the EEMs.

### 14. Compliance with Laws

The Customer is responsible for obtaining any and all necessary licenses and permits related to the installation of EEMs and agrees to comply with all federal, state and local laws and regulations with regard to installation of EEMs, including, but not limited to, M.G.L.c. 143, § 3L.

**15. Miscellaneous**

These Terms and Conditions and this program application constitute the entire agreement between the parties and supersede all other communications and representations. Paragraph headings are for the convenience of the parties only and are not to be construed as part of these Terms and Conditions. If any provision of the Terms and Conditions is deemed invalid by any court or administrative body having jurisdiction, such ruling shall not invalidate any other provision, and the remaining Terms and Conditions shall remain in full force and effect in accordance with their terms.

**16. Energy Benefits**

The PA is entitled to 100% of the energy benefits associated with the EEMs, excluding the value of energy cost savings realized by the Customer, but including all rights to all associated ISO-NE Energy, Capacity and Reserves Products, and the Customer agrees to provide the PA with such further documentation as the PA may request to confirm the PA's ownership of such benefits and Products.

**Engineer Acknowledgement**

**PROPOSED ENGINEERING COST:** \$25,000.00

I certify to the company that I will review the measures and calculations proposed in this study. They will be in my professional opinion appropriate for the type and purpose of the facility in which they will be installed. The information contained in this study will be true, accurate and complete to the best of my knowledge.

**NAME (print)**

**ENGINEER SIGNATURE**

**DATE**

Martine Dion



4.5.2019

**Customer Acknowledgement (pre-approval)**

**PROPOSED CUSTOMER CONTRIBUTION:** \$6250

Payment shall be due whether the customer elects to pursue any of the energy savings opportunities identified. I certify that all statements made in this application are correct to the best of my knowledge and that I have read and agree to the terms and conditions on the back of this form including those provisions regarding warranties. I further understand and acknowledge that the offer to pay incentives is subject to those Terms and Conditions.

**NAME (print)**

**CUSTOMER SIGNATURE**

**DATE**

Alicia Cannon

**FOR PROGRAM ADMINISTRATORS ONLY**

Approval	Contribution	Date	Program Manager
Electric			
Gas			



Project Management

## Memorandum

To: School Building Committee  
From: Joel G. Seeley  
Project: W. Edward Balmer Elementary School  
Re: Verizon Engineering Services  
Distribution: (MF)

Date: 4/17/2019  
Project No.: 17020

---

### Verizon Engineering Services

FEE: \$1,000.00

REASON: Provide engineering services by Verizon associated with evaluating the scope of work involving the relocation of Verizon facilities at Balmer Elementary School.

BUDGET AVAILABILITY: This Amendment would be funded out of Utility Company Fees Budget, ProPay Code 0601-0000 which has the current balance of \$200,000.00

---

1000 Massachusetts Avenue  
Cambridge, MA 02138  
617.547.5400

[www.smma.com](http://www.smma.com)

---



## Engineering Design Deposit

4/10/19

Mr Jason Rioux,  
Garcia, Galuska & DeSousa

There is a \$1,000 Invoice/Engineering Design Charge, **a non-refundable fee**, in connection with evaluating the scope of your request for work involving:

**..... REQUEST FOR VERIZON TO RELOCATE VERIZON FACILITIES AT BALMER  
ELEMENTARY SCHOOL IN WHITINSVILLE, MA.....**

The Invoice/Engineering Design Charge provides for the engineering effort required to prepare the Special Construction Quote (the Estimate). Should you choose to proceed, \$1000 fee will be applied to your total bill.

However, please be advised that **should you not** proceed with the work or if payment is not received within **60 days (extra time can be granted)**, your request will be cancelled, and you will be billed the \$1,000.00 Engineering Design Charge.

**Please return a signed copy of this invoice with your check.**

Kindly remit your payment, made payable to **Verizon**, in the amount of **\$1,000.00** to:

**Verizon  
C/o John Bowler  
15 Chestnut St Fl 6  
Worcester, MA. 01609,**

Should you have any questions or concerns regarding these terms, please contact me at 508-798-8821.

Sincerely,  
John Bowler \_\_\_\_\_  
Verizon Engineer

**Customer Signature:** \_\_\_\_\_ **Print:** \_\_\_\_\_  
**Phone Number** \_\_\_\_\_

**SCHOOL BUILDING COMMITTEE  
W. EDWARD BALMER ELEMENTARY SCHOOL**

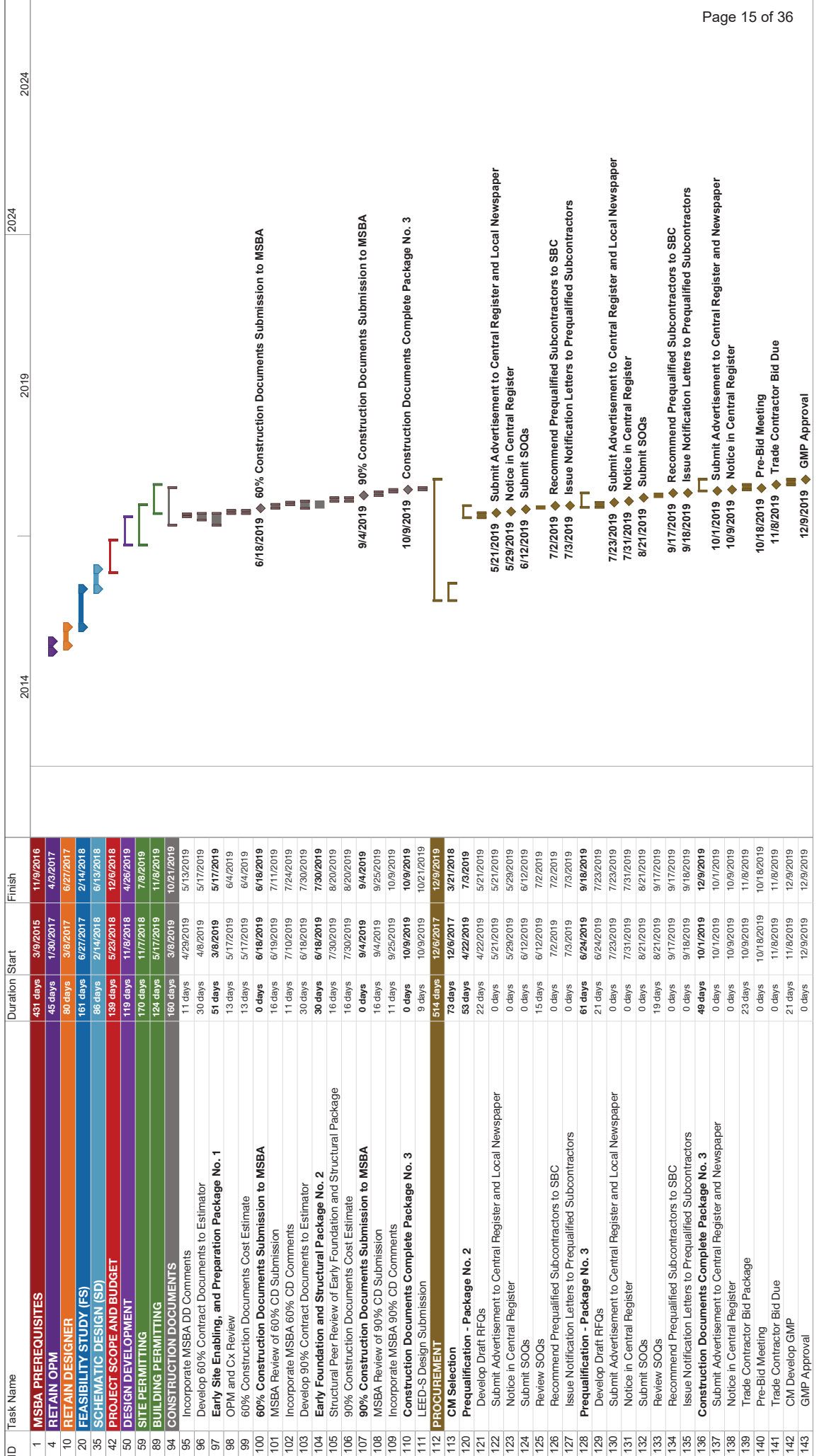
Page 14 of 36

All meetings held at the  
**High School Media Center at 6:30 PM**  
unless otherwise noted

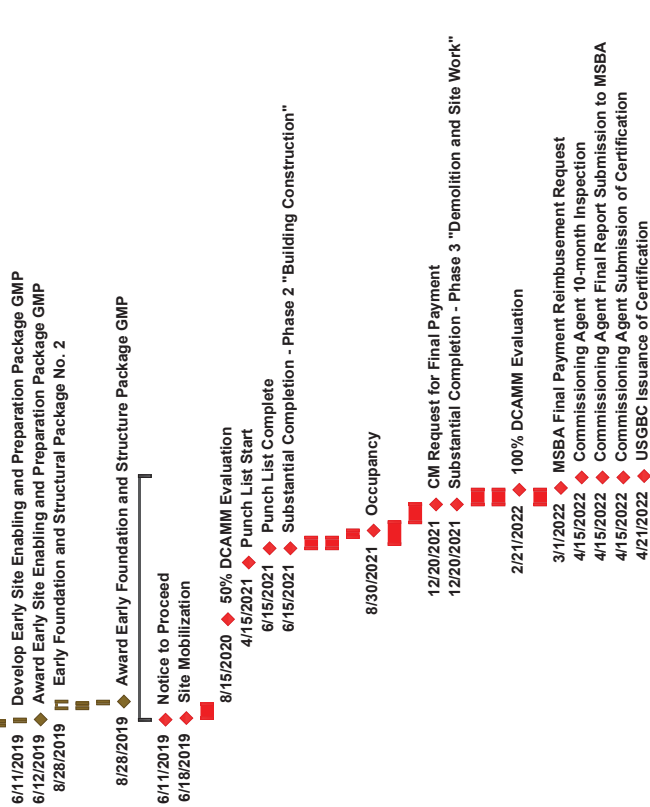
**MEETINGS SCHEDULE AND AGENDAS**  
**March 15, 2019 - Updated April 24, 2019**

DATE	AGENDA
<b>60% Construction Documents Phase</b>	
April 17, 2019	CONSERVATION COMMISSION HEARING NO. 1 - 7:50 PM
April 23, 2019	PLANNING BOARD HEARING NO. 1 - 7:45 PM
April 24, 2019	BUILDING COMMITTEE MEETING - WEDNESDAY
	Review Overall Construction Document Phase Schedule
	Review 60% Construction Document Schedule
	Review Design Refinements
	Site Permitting Update
May 1, 2019	CONSERVATION COMMISSION HEARING NO. 2 - DATE TBD
May 8, 2019	BUILDING COMMITTEE MEETING - WEDNESDAY
	Review Design Refinements
	Review MSBA Design Development Submission Comments
	Review Construction Logistics Plan
	Site Permitting Update
May 14, 2019	PLANNING BOARD HEARING NO. 2 - 7:05 PM
May 15, 2019	CONSERVATION COMMISSION ISSUE ORDER - DATE TBD
May 22, 2019	BUILDING COMMITTEE MEETING - WEDNESDAY
	Review Design Refinements
	Review LEED Scorecard
	Review Construction Logistics Plan
	Site Permitting Update
June 11, 2019	PLANNING BOARD ISSUE DECISION - DATE TBD
June 12, 2019	BUILDING COMMITTEE MEETING (WEDNESDAY)
	Award Early Site Package
	Review Reconciled 60% Construction Documents Cost Estimate
	Decide Value Engineering Items
	Vote to Submit 60% Construction Documents Package to MSBA
June 18, 2019	SUBMIT 60% CONSTRUCTION DOCUMENTS PACKAGE TO MSBA
	ADDITIONAL MEETINGS TO BE SCHEDULED

New W. Edward Balmer Elementary School  
Project Schedule



ID	Task Name	Duration	Start	Finish	2014	2019	2024
144	<b>EARLY PACKAGES PROCUREMENT</b>	72 days	5/17/2019	8/28/2019			
145	<b>Early Site Package No. 1</b>	18 days	5/17/2019	6/12/2019			
146	CM Bid Early Site Enabling and Preparation Package	13 days	5/17/2019	6/4/2019			
147	Develop Early Site Enabling and Preparation Package GMP	6 days	6/4/2019	6/11/2019			
148	Award Early Site Enabling and Preparation Package GMP	0 days	6/12/2019	6/12/2019			
149	<b>Early Foundation and Structural Package No. 2</b>	21 days	7/30/2019	8/28/2019			
150	CM Bid Early Foundation and Structure Package	16 days	7/30/2019	8/20/2019			
151	Develop Early Foundation and Structure Package GMP	6 days	8/20/2019	8/27/2019			
152	Award Early Foundation and Structure Package GMP	0 days	8/28/2019	8/28/2019			
153	<b>CONSTRUCTION</b>	736 days	6/11/2019	4/21/2022			
154	Notice to Proceed	0 days	6/11/2019	6/11/2019			
155	Site Mobilization	0 days	6/18/2019	6/18/2019			
156	<b>Substantial Completion - Phase 1 "Enabling Work"</b>	43 days	6/18/2019	8/16/2019			
157	50% DCAMM Evaluation	0 days	8/15/2020	8/15/2020			
158	Punch List Start	0 days	4/15/2021	4/15/2021			
159	Punch List Complete	0 days	6/15/2021	6/15/2021			
160	<b>Substantial Completion - Phase 2 "Building Construction"</b>	0 days	6/15/2021	6/15/2021			
161	Final Completion, Closeout and Commissioning	34 days	6/15/2021	7/30/2021			
162	FFE/Technology Installation	34 days	6/15/2021	7/30/2021			
163	Teacher/Staff Move-In	21 days	8/2/2021	8/30/2021			
164	<b>Occupancy</b>	0 days	8/30/2021	8/30/2021			
165	Demolish Existing School	66 days	7/3/2021	10/4/2021			
166	Parking Lot and Playfield Construction	55 days	10/4/2021	12/20/2021			
167	CM Request for Final Payment	0 days	12/20/2021	12/20/2021			
168	<b>Substantial Completion - Phase 3 "Demolition and Site Work"</b>	0 days	12/20/2021	12/20/2021			
169	Closeout	46 days	12/20/2021	2/21/2022			
170	Final Completion	46 days	12/20/2021	2/21/2022			
171	100% DCAMM Evaluation	0 days	2/21/2022	2/21/2022			
172	LEED-S Construction Submission	46 days	12/20/2021	2/21/2022			
173	MSBA Final Payment Reimbursement Request	0 days	3/1/2022	3/1/2022			
174	Commissioning Agent 10-month Inspection	0 days	4/15/2022	4/15/2022			
175	Commissioning Agent Final Report Submission to MSBA	0 days	4/15/2022	4/15/2022			
176	Commissioning Agent Submission of Certification	0 days	4/15/2022	4/15/2022			
177	USGBC Issuance of Certification	0 days	4/21/2022	4/21/2022			





DORE & WHITTIER  
ARCHITECTS, INC.

## MEMORANDUM

DATE: April 24, 2019

PROJECT: W. EDWARD BALMER ES

PROJECT NO.: 17-0759

SUBJECT: SBC DD Phase Minutes Items – Follow-Up

FROM: Lee Dore,  
Tom Hengelsberg – D&W

TO: Northbridge School Building Committee

Following are answers to questions or items brought up in previous SBC meetings:

ITEM	MINUTES	ACTION/ WHO	STATUS/ DATE
40.8	<p>M. DiSalvo [GGD Mechanical Engineer, consultant to D&amp;W] to work with the school department to define, in the specifications, sufficient training requirements for the school department's maintenance staff, including video-taping.</p> <p><u>From Mechanical Specifications:</u></p> <p>4. Training:</p> <ul style="list-style-type: none"> <li>a. All training shall be by the automatic temperature control contractor and shall utilize specified manuals and as-built documentation.</li> <li>b. Operator training shall include: <ul style="list-style-type: none"> <li>1) Sequence of Operation review.</li> <li>2) Sign on-Sign off.</li> <li>3) Modifying warning limits, alarm limits and start-stop times.</li> <li>4) System initialization.</li> <li>5) Use of Portable Operators Terminal.</li> <li>6) Troubleshooting of sensors (determining bad sensors).</li> <li>7) Point disable/enable.</li> <li>8) Software review of Sequence of Operation programs.</li> <li>9) Modification of control programs.</li> <li>10) Add/Delete/Modify data points.</li> <li>11) Use of diagnostics.</li> <li>12) Review of initialization.</li> </ul> </li> <li>c. Training shall be for Owner-designated personnel at the subject site, and shall be scheduled by the Owner with two week notice.</li> <li>d. All training sessions shall be videotaped by professional videographer, refer to architectural specifications for further requirements.</li> </ul> <p>Architectural Specifications have more detail on training and videotaping requirements.</p>		Closed
40.9	<p>T. Hengelsberg to confirm that the turning radii for all parking lot exits are sufficient to not force the turning car into the oncoming lane of traffic.</p> <p>This item refers to a comment about a turn in the NHS parking lot with a very small radius corner that forces the car turning out of the parking lot to go wide and into oncoming traffic.</p> <p>D&amp;W has confirmed with the Civil Engineer that all radii for passenger vehicles, SUVs and light trucks; straight trucks and articulated semi-trucks at the delivery area and loading dock; and fire apparatus up to the Town's largest apparatus, the 43' KME ladder truck at all critical turns as advised by the Fire Department, have been checked on the Balmer site plan with the engineer's turning radius software and conform to accepted engineering standards.</p>		Closed

ARCHITECTS  
PROJECT MANAGERS

260 Merrimac Street Bldg 7  
Newburyport, MA 01950  
978.499.2999 ph  
978.499.2944 fax

212 Battery Street  
Burlington, VT 05401  
802.863.1428 ph  
802.863.6955

www.doreandwhittier.com

40.10	<p><b>T. Hengelsberg to provide detailed cut and fill analysis, by material, with the Design Development Pricing Set for Committee review."</b></p> <p>The SBC is referred to the detailed table (attached) extrapolated from the Design Development Reconciled Estimate by Fontaine Bros, dated March 18, 2019, Section G10.</p>		Closed
40.11	<p><b>T. Hengelsberg to provide existing top soil characterization for gradient and nutrient enhancements for Committee review.</b></p> <p>D&amp;W has received a proposal from Pine &amp; Swallow which came in with excessive scope, and has solicited additional proposal for soil sampling and testing services for suitability as horticultural soils on the project. The purpose is to ascertain how much and what kinds of amendments will be required to re-use on site top-soils, and to help dial in the cost estimate.</p>	D&W to refine and forward proposal for SBC review.	Open
40.12	<p><b>T. Hengelsberg to refine the sidewalk layouts for a future Committee meeting.</b></p> <p>This item was in reference to the request to have a sidewalk leading from the building to a green play space adjacent to or near the upper elementary playground. D&amp;W conduct a walk-through of the site plan with the SBC tonight (4/24/19).</p>		Closed
40.13	<p><b>T. Hengelsberg to provide options to the routing of the 36 inch storm line for review, such as reducing the depth of the line, installing a temporary line until Phase 2, routing around the building, use of concrete piping.</b></p> <p>The team has looked at five main options for alignment of the 36" pipe. Please see tonight's presentation on alignment options (4/24/19). Additionally, we considered running a temporary pipe around construction to the west; this is not possible due to the existing building being in the way, and length of pipe would be less than minimum pitch. Similarly, to the east would not be possible because the pipe would be less than minimum pitch, and due to the cost of a very deep excavation. Varying the depth is not an option due to the critical pitch that must be maintained, with no variability possible due to existing conditions (fixed start and end point of the pipe).</p>		Closed
40.14	<p><b>T. Hengelsberg to provide less costly exterior building material options at the back of the school for pricing in the Design Development estimate.</b></p> <ol style="list-style-type: none"> <li>1. D&amp;W proposed three minor VE changes to the exterior of the building, mainly on A-Wing and B-Wing. These were accepted and have been incorporated.</li> <li>2. However, we realized that when we changed from the more expensive materials (glazing and panel product) to the less expensive brick, the Gross Area (GSF) of the building increased. We were able to absorb this for the small VE changes, but we are now <u>at the limit of GSF</u>. We would have to cut corridors to below their minimum widths to make up for GSF gained on the building exterior.</li> </ol>		Closed
40.15	<p><b>T. Hengelsberg to provide options to the Cape Cod Berm (CCB).</b></p> <p>During the VE discussion on 4/2/19 we pointed out that CCB is only proposed for the rear or outside edge of the circular drive that goes behind the building, in the least-used environment. In the VE process, the SBC accepted sloped granite in lieu of vertical granite at places where curbs are not next to sidewalks. If durability is a concern, a more expensive alternative to CCB would be sloped granite. At this point we must have curbs – the design has been submitted to ConCom and Planning, and the stormwater report has been written and</p>		Open

	submitted. Curbs channel stormwater to catch basins and prevent erosion and turf degradation from cars pulling off pavement.		
40.16	<p><b>T. Hengelsberg to provide pricing impact and more detailed product information for "SecureShade" for Committee review.</b></p> <p>More detail on the product operation and cost information was presented at the 4/2/19 SBC meeting. D&amp;W will be providing additional detailed information to the Working Group as it becomes available.</p>	D&W to provide additional detailed information to the Working Group	Open
40.17	<p><b>T. Hengelsberg to review if the 2-Hour Fire Wall and Horizontal Sliding Fire Door can be eliminated if fire-proofing was added to the Wing A-B and Wing C structure, in addition to the areas around the Egress Stairs.</b></p> <p>As we discussed in the 4/2/19 meeting under the Won-Door VE discussion, this option of fire wall versus fireproofing was reviewed early in Schematic Design with D&amp;W's estimator, PM&amp;C. Because the fire wall is placed at the narrowest part of the building, it is relatively cost-effective to create a fire wall boundary between the "separate buildings," as they are known in building code parlance. We are in the process of providing an updated cost study that shows this still to be the case. We believe it would be more expensive to change the construction type, which would increase the allowable SF per floor, but at the cost of a more robust construction system, including spray-on fireproofing on all steel columns, beams, and structural deck.</p>	D&W/ FBI to provide an updated cost study of fire wall vs. SAFF and higher construction type.	Open
40.18	<p><b>T. Hengelsberg to provide the STC for the Stage Operable Wall with a comparison against a CMU wall.</b></p> <p>The Sound Transmission Coefficient (STC) of a partially-reinforced (grout-filled) concrete masonry unit (CMU) wall is approximately 52. The wall between Platform and Gym is a mix of grouted units (STC 63) and hollow units (STC 52) and the assembly carries the rating of the "weakest link". The specified STC for the operable partition on the gym proscenium opening is 50. STC 50 means shouting voices or musical instruments in the next room would be barely audible.</p>		Closed
40.19	<p><b>T. Hengelsberg to provide a written code interpretation [from D&amp;W's] Code Consultant that the three-story shaft is not an Atrium.</b></p> <p>The Massachusetts Building Code (IBC 2015) defines an atrium as "An opening connecting two or more stories other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air-conditioning or other equipment, which is closed at the top and not defined as a mall..."</p> <p>The skylight-topped daylighting shaft in this case is NOT open to two or more stories; while it is open to the media center at the bottom, the shaft is enclosed with fire rated partitions and glazing assemblies at both the second and third floors. The fire rated enclosures do include glazed sections, which will be required to be tested as wall assemblies, not as glazed openings.</p> <p>Our Code Analysis further states:</p> <p>713.11 Enclosure at the Bottom: The bottom of the daylighting shaft will be open to the Media Center space as permitted by Exception #3 to Section 713.11, which states "3. The fire-resistance-rated room separation and the protection at the bottom of the shaft are not required provided there are no combustibles in the shaft and there are no openings or other penetrations through the shaft enclosure to the interior of the building."</p>		Closed

BALMER – SBC minutes Follow-Up

April 24, 2019

Page 4 of 4

Sincerely,

**DORE & WHITTIER ARCHITECTS, INC.**

Architects ■ Project Managers

Tom Hengelsberg, AIA

Project Manager

31-0000.000 EARTHWORK			CUT/EXCAVATION	UNIT	Fill	UNIT	IMPORT	UNIT	EXPORT	UNIT
31-2316.215	Footing Excavation									
105	Footing Excavation	2,450.00 cy	2,450.00	/cy		/cy		/cy		/cy
105	Haunch Excavation 4200LF	389.00 lf	389.00	/cy		/cy		/cy		/cy
105	Excavation For Canopy Foundations	160.00 cy	160.00	/cy		/cy		/cy		/cy
31-2323.215	Structure Backfill									
110	Footing Backfill w/Insitu Soil	3,000.00 cy		/cy	3,000.00	/cy		/cy		/cy
110	Backfill For Canopy Foundations	160.00 cy		/cy		/cy	160.00	/cy		/cy
31-2323.255	Import Fill									
600	Stone 3/4" At Footings	400.00 cy		/cy		/cy	400.00	/cy		/cy
31-2316.210	Structure Excavation									
105	Excavate for Elevator Pit	63.06 cy	63.06	/cy		/cy		/cy		/cy
31-2316.220	Mass Excavation									
105	Over-Excavate Fill in Building	5,500.00 cy	5,500.00	/cy		/cy		/cy		/cy
31-2323.215	Structure Backfill									
110	Backfil Elevator Pit	47.00 cy		/cy		/cy	47.00	/cy		/cy
31-2323.220	Backfill Slabs									
10	12" Course Gravel Slab on Grade Base Material/Bedding	3,505.00 cy		/cy		/cy	3,505.00	/cy		/cy
10	9" Gravel Slab on Grade Base Loading Dock	4.33 cy		/cy		/cy	4.33	/cy		/cy
31-2323.255	Import Fill									
100	Structural Fill to Subgrade	12,000.00 cy		/cy		/cy	12,000.00	/cy		/cy
100	Structural Fill At 3' DIP Through Building	2,250.00 cy		/cy		/cy	2,250.00	/cy		/cy
31-2323.260	Haul Material									
10	Export Displaced Material From 3' Trench For DIP Through Building	2,300.00 cy		/cy		/cy		/cy	2,300.00	/cy
31-1400.110	Strip Topsoil									
10	Strip/Stockpile - Topsoil	8,585.00 cy	8,585.00	/cy	8,585.00	/cy		/cy		/cy
10	Haul Excess Topsoil - Off-site Disposal	3,590.00 cy		/cy		/cy		/cy	3,590.00	/cy
10	PHASE II	TITLE								
10	Strip/Stockpile - Topsoil Phase II	2,930.00 cy	2,930.00	/cy	2,930.00	/cy		/cy		/cy
10	Haul Excess Topsoil - Off-site Disposal Phase II	1,320.00 cy		/cy		/cy		/cy	1,320.00	/cy
31-2213.110	Site Grading									
110	Bulk Grade Site - Cut	21,850.00 cy	21,850.00	/cy		/cy		/cy		/cy
110	Bulk Grade Site - Fill	14,000.00 cy		/cy	14,000.00	/cy				
110	PHASE II	80.00 TITLE								
110	Bulk Grade Site - Cut Phase II	8,650.00 cy	8,650.00	/cy		/cy		/cy		/cy
110	Bulk Grade Site - Fill Phase II	1,420.00 cy		/cy	1,420.00	/cy		/cy		/cy
31-2323.255	Export Fill									
100	Bulk Grade Site -Export/Excess	7,850.00 cy		/cy		/cy		/cy	7,850.00	/cy
100	Bulk Grade Site - Export/Excess Phase II	7,140.00 cy		/cy		/cy		/cy	7,140.00	/cy
32-0000.000	EXTERIOR IMPROVEMENTS									
32-1116.005	Subbase Materials									
140	Supply & Install Gravel Borrow At 8" Phase I	2,400.00 cy		/cy		/cy	2,400.00	/cy		/cy
140	Supply And Install D.G.S.B. At 4" Phase	1,190.00 cy		/cy		/cy	1,190.00	/cy		/cy
140	Supply & Install Gravel Borrow At 8" Phase II	2,375.00 cy		/cy		/cy	2,375.00	/cy		/cy
140	Supply And Install D.G.S.B. At 4" Phase II	1,435.00 cy		/cy		/cy	1,435.00	/cy		/cy
32-0000.000	EXTERIOR IMPROVEMENTS									
32-1116.005	Subbase Materials									
120	6" Gravel Base - Sidewalks Phase I	666.67 cy		/cy		/cy	666.67	/cy		/cy
120	6" Gravel Base - Sidewalks Phase II	265.02 cy		/cy		/cy	265.02	/cy		/cy
120	6" Gravel Base - At Unit Pavers Base	25.37 cy		/cy		/cy	25.37	/cy		/cy
120	D.G.S.B. At 6" Stone Dust Surfacing	15.00 cy		/cy		/cy	15.00	/cy		/cy
120	6" Gravel Base Crushed Stone 1.5"/ 2"Compacted Stone Dust/ 5	8.35 cy								

# Owner's Manual

Operation &  
Maintenance  
Guide

# Table of Contents

---

**Standard Operation** ..... 2

**Preventive Maintenance** ..... 4

**Operator Troubleshooting** ..... 6

**Won-Door Corporation**  
**Main Office: (800) 453-8494**  
**Service Department: (800) 890-2111**

## **Frequently asked questions about the FireGuard system**

---

### **■ How do I operate the FireGuard door?**

see page 2

### **■ How do I get the door to open?**

see page 2

### **■ How do I reset the door?**

see page 3

### **■ Why is my door beeping?**

see page 6

### **■ Who do I call for service?**

see page 7

# Standard Operation

---

Won-Door FireGuard folding partitions are a part of the fire and life safety equipment of your building and may only be installed and serviced by factory trained personnel. However, it is essential that building personnel have a basic understanding of their purpose and operation.

Reading this manual will acquaint you with the system and how it works. Suggestions on periodic preventive maintenance are outlined in the “Preventive Maintenance” section beginning on page 4. For information regarding various fault conditions or trouble signals, refer to “Operator Troubleshooting” on page 6.

The U.L. listed Won-Door FireGuard assembly is installed in the open position, typically in a storage pocket, closing upon a signal from either a smoke detector or fire alarm system. The door assembly operates on a 12 volt DC system which includes batteries, a transformer and a microprocessor. A 120 volt line connected to a junction box in the storage pocket near the “Control Box” is used to continually float charge the batteries at 13.8 volts. Upon activation of a building alarm, the door will close automatically. The speed at which the door closes can vary, but it is typically set to close at 10 inches per second. Concurrent with the building alarm will be the activation of the horn, an audible signal sounding a steady tone indicating that the system is in the “Fire Mode.” It will remain in this condition until the system is physically reset (as described later in this manual).

The leading edge of the door is equipped with a special sensor. Upon encountering an obstruction the door will stop – only light pressure is needed to activate the sensor – pause momentarily, then continue closing. Once the door is in the fully closed position it can be reopened by:

- pressing the Close/Clear – Open/Mute rocker switch to the Open/Mute position which will engage the motor and open the partition. This switch is located on one side near the leading edge of the door assembly. Once the door is in operation, it can be

stopped at any point by pressing the same switch to the Close/Clear position.

- depressing the exit hardware. As little as four pounds of pressure applied anywhere on this plate will cause the door to retract a preset distance from its closed position. If the exit hardware is activated again after the door has stopped, it will open an additional distance equal to the established opening width. After retracting to the prescribed opening width, the door will pause, then recycle closed.

- operating it manually by physically pushing the door back to create an opening. This method can be used if there is a complete loss of power.

It is recommended that the Won-Door FireGuard assembly be routinely operated at least quarterly. This can be done without setting the building into an alarm condition by using the rocker switch. Activating the rocker switch will cause the door to close automatically. Pressing the rocker switch in the opposite direction will cause the door to automatically open.

The door is designed, and can be optionally installed, so that it will close upon power loss in the building. If this occurs, the door can be reset into the pocket by pressing the rocker switch to the *door open* position after the power has been restored.

Alarm activation will be the major reason that resetting the door will be necessary. Assuming that the condition which initiated the alarm has been cleared, resetting the system is accomplished by operating the rocker switch.

# Preventive Maintenance

---

It is recommended that the door assemblies be operated at least quarterly (by use of the rocker switch) and that the following maintenance procedures be performed:

## INSPECTIONS

**1) The chain.** The door assembly is chain driven. The chain is located in a guide track between the tracks in which the door travels. The drive sprocket is located immediately adjacent to the DC motor, and the return idler can be found at the opposite end. Proper chain tension must be maintained to insure reliable door operation. With the door in the fully open or retracted position, find the approximate midpoint of the opening. At the midpoint, the chain should be resting on the chain guide. If the chain has fallen out of the guide or if the door refuses to stay in the closed or open position, the tension of the chain may need to be adjusted. If so, contact the Won-Door Service Department for assistance.

**2) The door track system.** Locating the track system 3 1/4" above the ceiling line substantially reduces the possibility of damage. Nevertheless, periodic visual inspection of both tracks along the entire length of the opening will insure proper operation in an emergency condition.

**3) The leading edge obstruction detector.** This is the aluminum cap on the leading edge of the door assembly. Sensing switches, located behind this cap, are connected to the microprocessor. The edge cap should be firmly attached to the lead post assembly of the door and installed so that the only movement is for the activation of the sensors. Test for proper operation by placing the door in the open position. Close the door by operating the rocker switch in the close direction. While the door is closing, depress the leading edge. If the door does not stop quickly or if the edge cap is loose or improperly aligned, contact the Won-Door Service Department to schedule a service call.

**4) Operation from open to closed position.** Actuate each FireGuard door by pressing the rocker switch to close and then to open, checking for smooth operation across the entire opening. As the door closes, make sure that the leading edge fully seats into the striker. As the door opens, see that the door stops in the properly stacked position.

**5) The exit hardware.** With the door in the fully closed position, depress the exit hardware to ensure that the door opens the desired amount. (ie: the door will open to a minimum of 38" and stop.)

**6) The trolleys and panel pins.** Inspect the trolleys and panel pins for damage.

**7) The sweeps.** Check the top and bottom sweep for proper seal. If there are any tears, holes or light gaps, the sweep should be repaired. If the damage is extensive, it should be replaced.

#### **LUBRICATION**

**1) The chain.** There should always be a light film of lubrication coating the entire chain, indicating adequate lubrication. Use lithium chain oil.

**2) The tracks and support trolleys.** Apply a light film of lithium grease along the inside of the track as well as on the trolley rollers.

#### **CLEANING**

The Won-Door FireGuard doors are easy to clean. The panels, lead posts and bottom of the track are to be cleaned with a mild soap and water base cleaner. Cleaning should be done quarterly unless excessive dirt buildup occurs. In that case, the door should be cleaned more frequently.

# Operator Troubleshooting

---

The Won-Door FireGuard system is the only fire door assembly which is entirely electronically supervised. The microprocessor, located in the "Control Box," receives input from the various integral door components. Monitoring is continuous, occurring approximately 3 times per second. If for any reason a fault condition occurs, an audible signal will be transmitted from a horn located on the Control Box.

If, upon arriving at the door location in your building, you find the door either in the open or closed position and you hear a fault signal, listen carefully to the horn pattern. This pattern will indicate what has caused the condition.

**1) A single beep pattern means there is a battery fault.** This condition will occur if the battery is overcharged or undercharged due to a failed component in the power supply or if there has been a loss of AC power for a sustained period of time. If the latter situation has occurred, the batteries will have discharged to such a point that, for fire protection, the door will have automatically closed while adequate power remained.

To correct the fault, operate the rocker switch. If the fault clears, make a note that the fault occurred. If it reoccurs within 24 hours, call Won-Door Service and schedule a service call to test the charging system or replace the batteries.

If the fault did not clear when you operated the rocker switch, it is a clear indication that the batteries are low because there was a loss of AC power going to the control box. Since low battery faults will have priority over loss of AC power faults, you may hear the low battery horn pattern even though the real problem is loss of AC power. Follow the procedure for restoring AC power described below. If the fault still cannot be corrected, contact Won-Door Service to schedule a service call.

**2) A two beep pattern is communicating a loss of AC power.** As soon as the AC power is restored, this fault will automatically clear. If you

are experiencing a general power outage, and it will be a long time before the 120 volt service can be restored, mute the door with the rocker switch to temporarily silence the horn.

If the power is not off:

- check the building circuit breaker to insure there is no interruption of the 120 volt power to the control box.
- If the breaker is okay, check the AC fuse in the control box (it is the one on the left marked 3 amp). Replace it if it is bad. For safety, before entering the pocket to check the fuse, unplug the wire connecting the floating jamb to the control box. The horn will sound a 5 beep pattern and the door will be prevented from opening while you service the fuse. Once the fuse is checked or replaced, be sure to plug the floating jamb wire back in. Reset the 5 beep pattern by operating the rocker switch.

**3) A three beep pattern indicates that there is a switch malfunction.**

- Check the leading edge detector at the front of the door by pulling out on the cap. If the fault clears it means the leading edge cap is sticking. Contact Won-Door Service to repair the damaged cap.
- Check the fire exit hardware on both sides of the door. If pulling gently on the plates causes the fault to clear, either the switches behind the plate are damaged or the plate is not functioning properly. Call Won-Door Service and arrange for a service call.
- If neither of these procedures enables you to identify the problem, contact Won-Door Service for repair.

**4) A continuous tone means that the door is in fire mode** and will seek the closed position. As soon as the initiating device (a smoke detector or building alarm system) has been cleared the door can be reset by operating the rocker switch. It can then be operated back into the pocket.

Other fault conditions routinely monitored by the microprocessor are identified by a detailed description of horn patterns found in the "Operation and Instruction Manual" available from the Won-Door Corporation. To schedule service or request additional information, contact the Won-Door Service Department at 1-800-890-2111.

**Won-Door Corporation**

1865 South 3480 West  
Salt Lake City, UT 84104  
Main Office: (800) 453-8494  
Service Department: (800) 890-2111

Page 31 of 36

WD.10.99





# FONTAINE BROS., INC.

CONSTRUCTION MANAGERS  
GENERAL CONTRACTORS

April 22, 2019/r2\*April 22, 2019

Sent via email

Care of Joel G. Seeley, SMMA, OPM  
[jseeley@smma.com](mailto:jseeley@smma.com)

*For The Northbridge Building Committee,  
W. Edward Balmer Elementary School  
Northbridge Town Hall  
7 Main Street  
Whitinsville, MA 01588*

Early Release Package No.1: Sitework  
Proposed Subcontractor List

Pursuant to Appendix C to the General Conditions, Article II, 'Other Subcontracts' of the Contract between Fontaine Bros., Inc. and the Town of Northbridge, Fontaine Bros, Inc. hereby requests approval of the following subcontractors (non-filed trade contractors) to provide bids through Fontaine Bros., Inc. on the following scope packages:

No.	Subcontractor / Vendor	Scope of Early Release Package No.1	MBE/WBE
1.	AF Amorello & Sons, Inc.	Sitework	
2.	Ernest Guigli & Sons, Inc.	Sitework	
3.	Gagliarducci Construction, Inc.	Sitework	
4.	Marois Bros. Inc.	Sitework	
5.	T&M Equipment	Sitework	WBE
6.	W.L. French Excavating Corporation	Sitework	
7.	AJ Welch – The Welch Corp	Sitework	
8.	J. Derenzo Company	Sitework	
9.	James W. Flett Co.	Sitework	

Consistent to the above-mentioned Article, Fontaine, Bros., Inc. will provide, post bid, a list of bids submitted from each bidder and will indicate the bidder it recommends be selected to be awarded a subcontract. In addition, we will provide a written explanation as to the reasons for its selection and recommendation. Our recommendation will be based on relevant factors including, but not limited to, price, quality of work, and MBE and/or WBE participation and overall ability to serve in the best interest of the Community – Owner.

Approved By: \_\_\_\_\_ Date: \_\_\_\_\_  
*The Northbridge Building Committee*

Sincerely,

*David A. Barksdale*

Director of Preconstruction Services

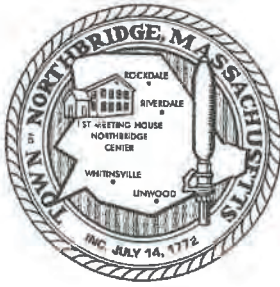
[Dbarkdsale@fontainebros.com](mailto:Dbarkdsale@fontainebros.com)

M. 617-694 -5613

Date: April 16, 2019

**Fontaine Bros., Inc. | 510 Cottage Street | Springfield, MA 01104**

**Fontaine Bros., Inc. | 12E. Worcester Street | Worcester, MA 01604**

**TOWN OF NORTHBRIDGE****CONSERVATION COMMISSION****7 MAIN STREET****WHITINSVILLE, MASSACHUSETTS 01588****Telephone: (508) 234-0817****FAX: (508) 234-0814****Agenda for****Wednesday, April 17, 2019****at 14 Hill Street**

19 APR 12 PM 12:07

COPY  
NORTHBRIDGE TOWN CLERK  
02 APR 2019**7:00PM Citizen's Forum**

**7:05PM** Continued Public Hearing – NOI – **(248-660) Off Spring Street (Winston Woods)** (Map 15A, Parcels 224-232). Proposed construction of a 9-lot residential subdivision located off Spring Street. The applicant is Brian Fitzgerald represented by Guerriere & Halnon, Inc., 1029 Providence Road, Whitinsville, MA 01588.

**7:15PM** Continued Public Hearing – NOI – **(248- ) Moon Hill Estates, off Moon Hill Road** (Map 29, Parcels 18, 19 & 20). Proposed construction of a 42 lot residential subdivision with a wetland crossing and replication, stormwater drainage and associated earthwork, landscaping and utilities. The applicant is Melody Nydam, Impact Real Estate and Development, LLC represented by Andrews Survey & Engineering, Inc., 104 Mendon Street, Uxbridge, MA 01569.

**7:20PM** Continued Public Hearing – NOI – **(248- ) Main and Arcade Streets (Lovey's Garden Marketplace)** (Map 6, Parcel 30). Proposed construction of shed and brush clearing on an existing gravel parking lot in preparation of a retail operation selling nursery supplies such as flowers and other plantings. The applicant is Gary Vecchione represented by Guerriere & Halnon, Inc., 1029 Providence Road, Whitinsville, MA 01588.

**7:30PM** Public Meeting – RDA- **(02-RDA-2019) 195 Sutton Street** (Map 20, Parcel 81). Proposed renovation of a single-family dwelling within a buffer zone of a resource area. The applicant is Cynthia M. Campbell, 115 Sutton Street, Northbridge, MA 01534.

**7:40PM** Public Hearing – Amend NOI – **(248-538) Carpenter Estates (Hannah Drive)** (Map 10, Parcel 4). Proposed amendment to include revised work within the subdivision. The applicant is Pasture Development Group represented by Andrews Survey & Engineering, Inc., 104 Mendon Street, Uxbridge, MA 01569.

**7:50PM** Public Hearing – NOI – **(248- ) Balmer School (21 Crescent Street)** (Map 7, Parcels 138 & 141). Proposed replacement of the existing Balmer School with a new elementary school. The applicant is Town of Northbridge represented by Nitsch Engineering, 2 Central Plaza, Boston, MA 02108.

**Old / New Business****Enforcement Actions****Minutes****Executive Session**

*(Please note this Conservation Commission Agenda may be subject to change).* The next meeting of the Conservation Commission is scheduled for Wednesday, **May 01, 2019.**



TOWN OF NORTHBRIDGE  
**PLANNING BOARD**  
7 MAIN STREET  
WHITINSVILLE, MASSACHUSETTS 01588

Page 35 of 36

PHONE: (508) 234-2447

FAX: (508) 234-0821

**AGENDA**  
**TUESDAY, APRIL 23, 2019**

Northbridge Memorial Town Hall, 7 Main Street  
Board of Selectmen Room  
**7:00 PM**

**I. CITIZENS FORUM**

**II. FORM A**

**III. 7:05 PM MOON HILL ESTATES DEFINITIVE SUBDIVISION -CONT PUBLIC HEARING**  
Chapter 222 -Subdivision Rules & Regulations  
Assessors Map 29 Parcel(s) 18, 19 & 20 -Moon Hill Road

**IV. 7:40 PM W. EDWARD BALMER ELEMENTARY SCHOOL -PUBLIC MEETING**  
Site Plan Review [§173-49.1]  
21 Crescent Street -Assessors Map 7 Parcel(s) 138 & 141

**V. 8:15 PM STONE HILL CONDOMINIUM, SENIOR LIVING DEVELOPMENT -PUBLIC HEARING**  
Article XVII -Senior Living Bylaw (Special Permit)  
Site Plan Review [§173-49.1]  
Assessors Map 14 Parcel(s) 24, 94 & 211 -Church Street

**OLD / NEW BUSINESS**

Approval of Meeting Minutes –February 19, 2019, April 09, 2019  
2019 Spring Annual Town Meeting -Tuesday, May 07, 2019  
Tuesday, May 28, 2019 -Vote to Cancel Meeting (Quorum)  
Presidential Farms Open Space Parcel(s) A & D -Status/Update  
Economic Development Committee -Status/Update  
Community Preservation Committee -Status/Update  
Local Historic District Study Committee -Status/Update  
Open Space & Recreation Plan Committee -Status/Update  
Subdivision -Status/Update(s)  
Planning Board -Associate Member (Vacancy)  
Planning -Weekly Report(s)  
Planning Board Concerns  
Mail -Review  
Other

Please note this Planning Board Agenda may be subject to change.  
**The next meeting of the Planning Board is scheduled for May 14, 2019**

*[An audio recording of the meeting may be made to assist in the preparation of minutes; such recording will not be archived]  
Meeting minutes shall serve as the official record of the Planning Board*



## COMMUNITY PLANNING & DEVELOPMENT

R. Gary Bechtholdt II, Town Planner  
7 Main Street Whitinsville, MA 01588  
Phone: (508) 234.2447 Fax: (508) 234.0821  
gbechtholdt@northbridgemass.org

April 18, 2019

Doreen A, Cedrone, Town Clerk  
Northbridge Town Hall, 7 Main Street  
Whitinsville, MA 01588

**RE: W. EDWARD BALMER SCHOOL –Site Plan Review**  
Engineering Consulting Services

Dear Mrs. Cedrone:

Please be advised at its meeting of Tuesday, April 16, 2019 the Northbridge Planning Board voted (5-0) to ENGAGE the services of GRAVES ENGINEERING, INC. to perform consulting services on its behalf for the above noted W. Edward Balmer School project.

The purpose of GRAVES ENGINEERING, INC. review shall be to provide the Northbridge Planning Board with an independent assessment/review of the Site Development Plan entitled "W. Edward Balmer School" prepared by Dore & Whittier Associates, Inc. dated April 09, 2019 and Stormwater Report prepared by Nitsch Engineering dated April 03, 2019 (& revised April 14, 2019) as it relates to site layout and drainage pursuant to state/local bylaw regulations for the proposed new Balmer Elementary School.

In accordance with the Town of Northbridge and Massachusetts General Law, this consultation shall be performed at the expense of the Owner/Applicant, for the benefit of the Planning Board. GRAVES ENGINEERING, INC. shall invoice the "School Building Committee" for services rendered. Prior to endorsement of an approved site development plan, outstanding invoicing, if any shall be satisfied.

As the awarded Consultant, GRAVES ENGINEERING, INC. shall evaluate the proposed project and provide written report(s) of its evaluation with recommendations to the Planning Board relating to state/local regulations concerning design/layout, drainage, stormwater management, erosion controls, and other engineering specifications. GRAVES ENGINEERING, INC. may be required to make oral presentations at public meeting(s) held by the Northbridge Planning Board. The Planning Board is scheduled to open its public meeting on Tuesday, April 23, 2019.

Please note this consultation shall not include construction inspection, however may be expanded to include peer review for the Conservation Commission, upon Conservation Commission approval/determination. Should you require additional information at this time please contact the Planning office.

Sincerely,

R. Gary Bechtholdt II  
Northbridge Town Planner

Cc: Adam Gaudette, Town Manager  
Dore & Whittier Associates, Inc.  
School Building Committee

Jeffrey Walsh, Graves Engineering, Inc.  
Barbara McNamee, Conservation Commission  
Planning Board/File

# FOLLOW-UP TO VE PRICING



MODULAR



UTILITY



VE LIST:

A01- ITEM 16

A01	A4 dwgs / Item 16	Provide Utility brick ILO standard Modular brick on entire building.	(\$90,585)
-----	----------------------	--	------------

# MODULAR



# UTILITY



## MODULAR



## UTILITY



# MODULAR



# UTILITY





MODULAR



UTILITY



FAÇADE AS CURRENTLY DESIGNED:  
STANDARD MODULAR BRICK, "SHOULDICE" STONE-LOOK CMU



FAÇADE OPTION 1:

UTILITY BRICK (NOM 4 X 4 X 12"), "SHOULDER" STONE-LOOK CMU BASE



FAÇADE OPTION 2:  
UTILITY BRICK (NOM 4 X 4 X 12"), SPLIT-FACED CMU BASE

# THE NEW W. EDWARD BALMER SCHOOL

## NORTHBRIDGE, MASSACHUSETTS



## SCHOOL BUILDING COMMITTEE MEETING

APRIL 24, 2019



Massachusetts School Building Authority  
Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities



# AGENDA

- CD Progress Report
- Prior Meeting Minutes Action Items
- Follow up to Owner's Comments
- Value Engineering Items
- Proprietary Materials



# CD PROGRESS REPORT

- 4/3 Submit Conservation Committee permit package
- 4/5 Submit DD document package to MSBA
- 4/8 **Construction Documents (CD) Phase begins**
- 4/9 Submit Planning permit package
- 4/10 Working Group - Technology Meeting
- 4/10 Mechanical Systems & Controls Meeting
- 4/11 CD Phase Consultant Kickoff/ LEED Status meeting
- 4/15-19 Internal coordination, consultant coordination, Drawing & Specification progress.
- 4/19 Coordination call with Fontaine – site phasing & logistics
- 4/23 Planning Board meeting
- 4/25 Safety Committee meeting





# OUTSTANDING MINUTES ITEMS

40.12 T.

Hengelsberg to refine the sidewalk layouts for a future Committee meeting.

South plan sidewalks highlighted

(VE L02) Vail Field walks are bituminous

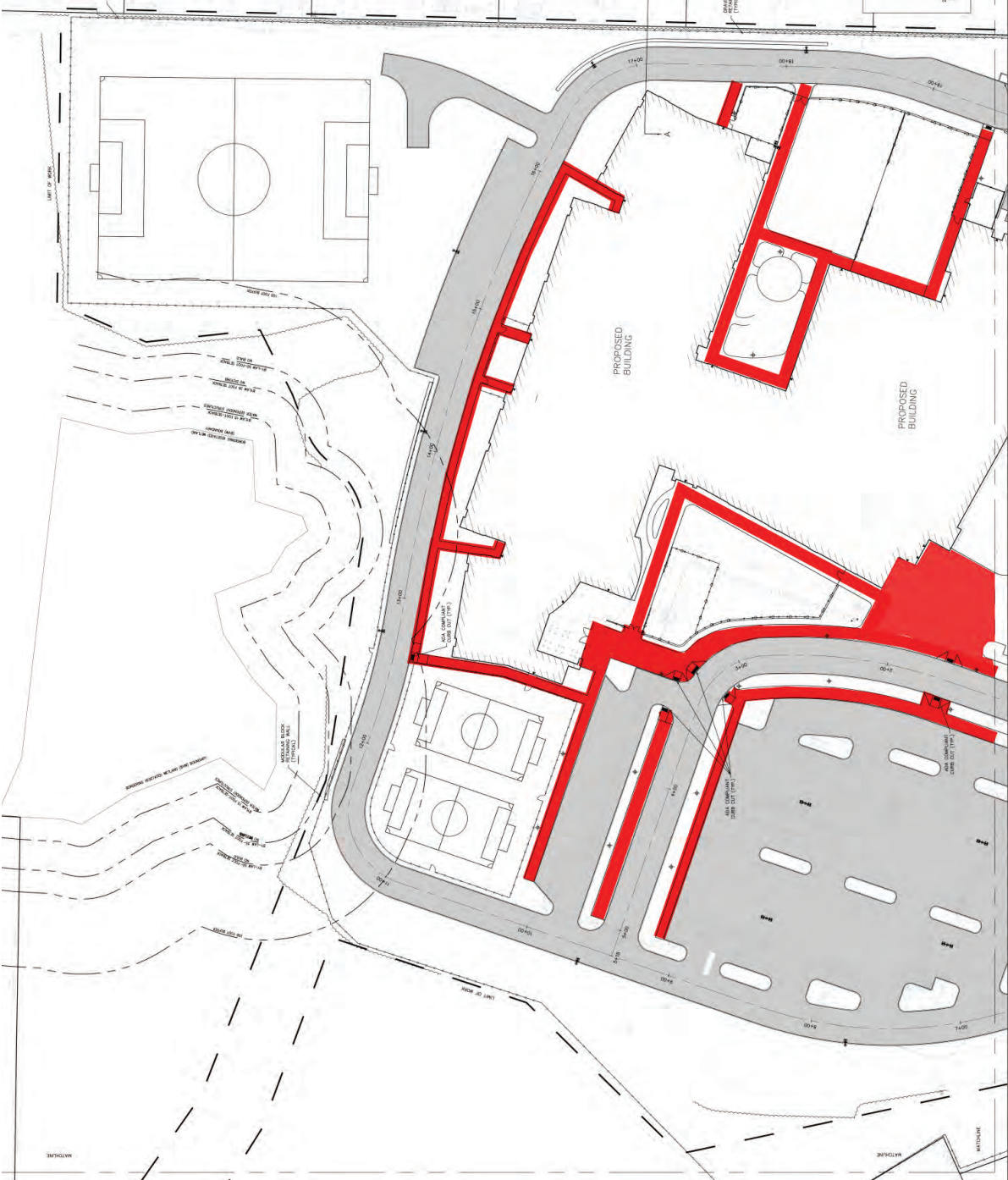


# OUTSTANDING MINUTES ITEMS

40.12 T.

Hengelsberg to refine  
the sidewalk layouts for  
a future Committee  
meeting.

North plan sidewalks  
highlighted



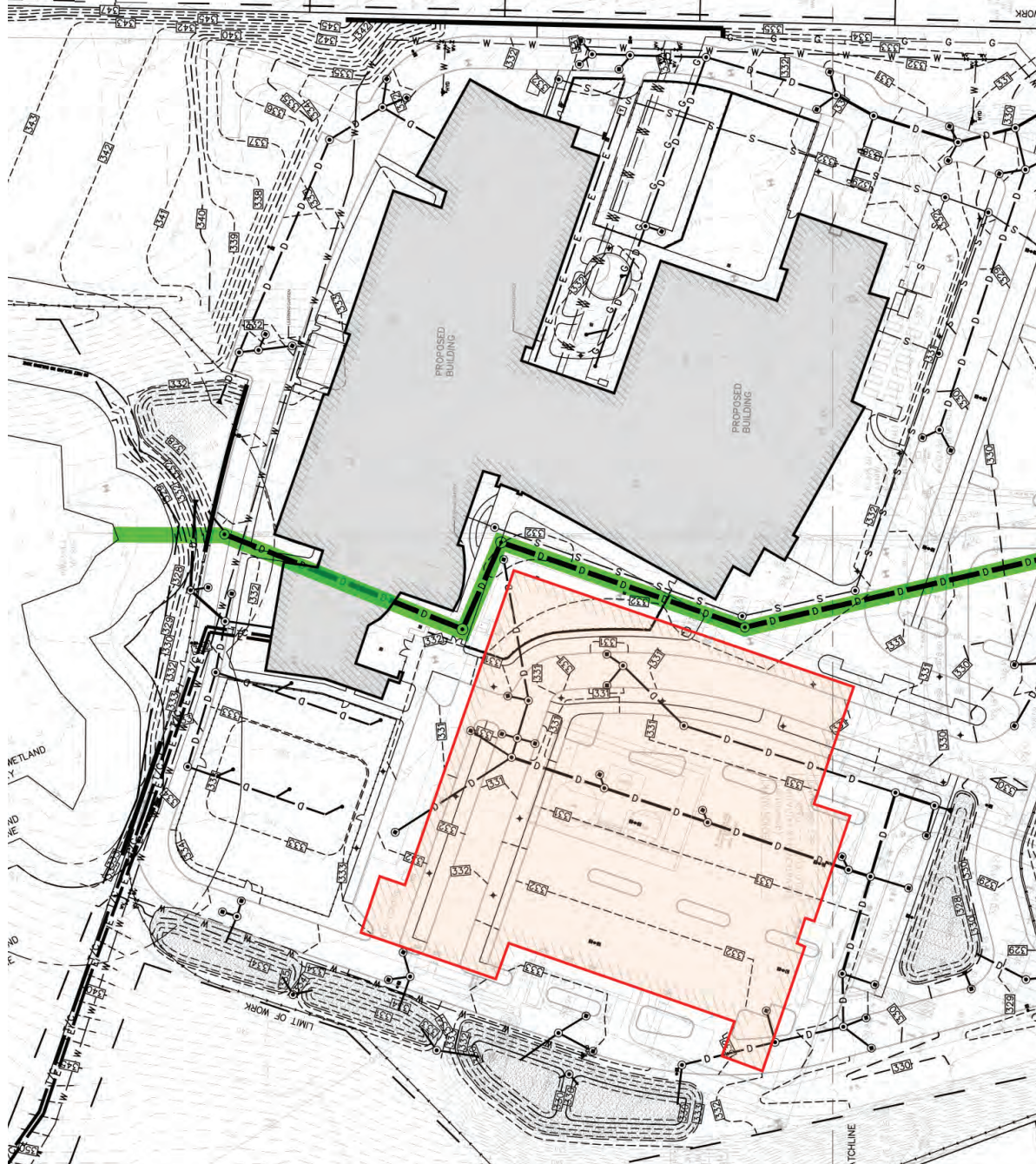
# OUTSTANDING MINUTES ITEMS

**40.13** T. Hengelsberg to provide options to the routing of the 36 inch storm line for review, such as reducing the depth of the line, installing a temporary line until Phase 2, routing around the building, use of concrete piping.



# 36" STORM DRAIN LINE - SD DESIGN OPTION 1

- Pipe shown as sketch to convey idea
- Rejected due to proximity and depth of excavation right next to existing building; would require shoring.
- Conflicts with new building foundations

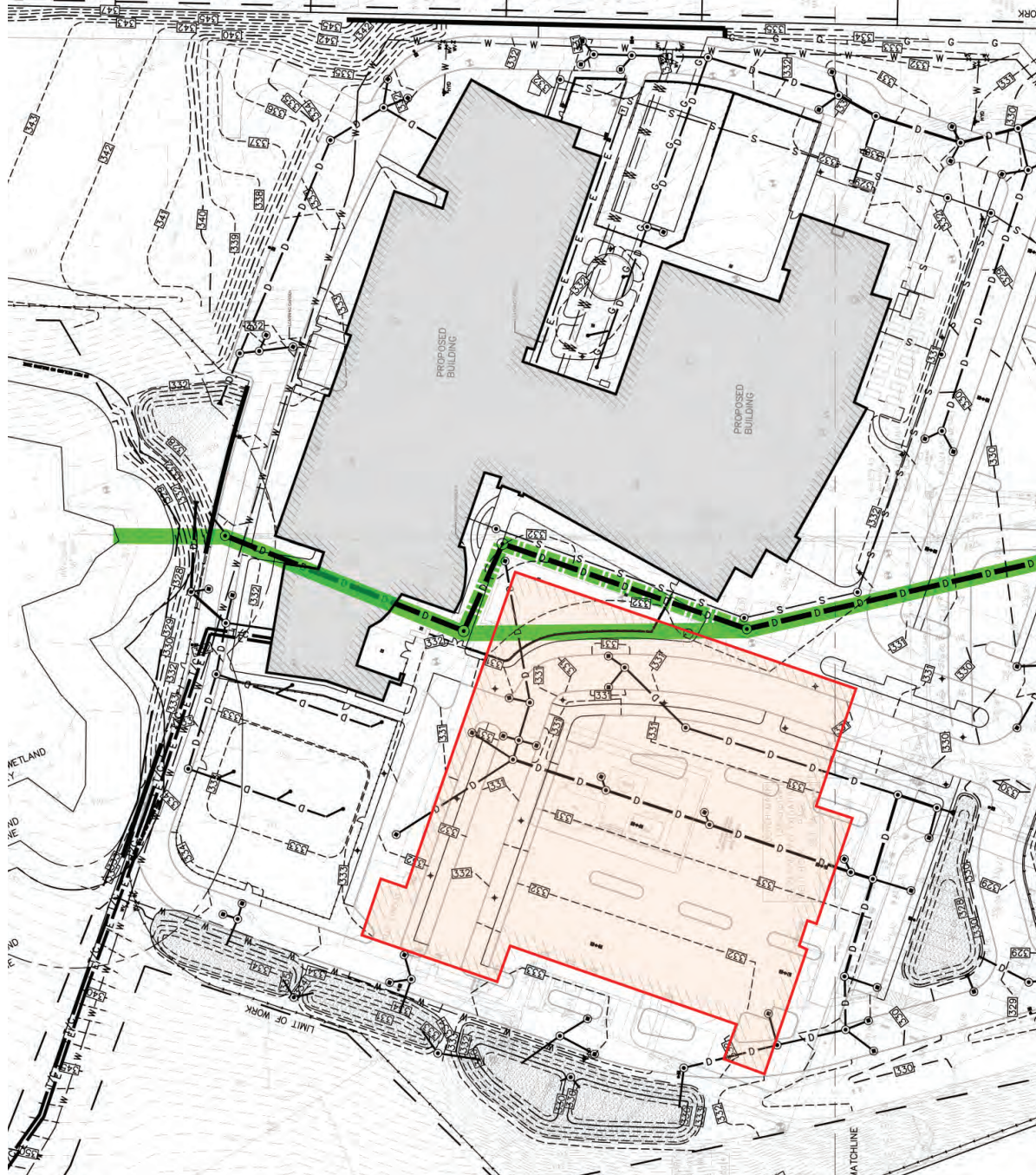


# 36" STORM DRAIN LINE - SD DESIGN OPTION 1A

Step 1 - temporary drain  
during construction  
(dashed line)

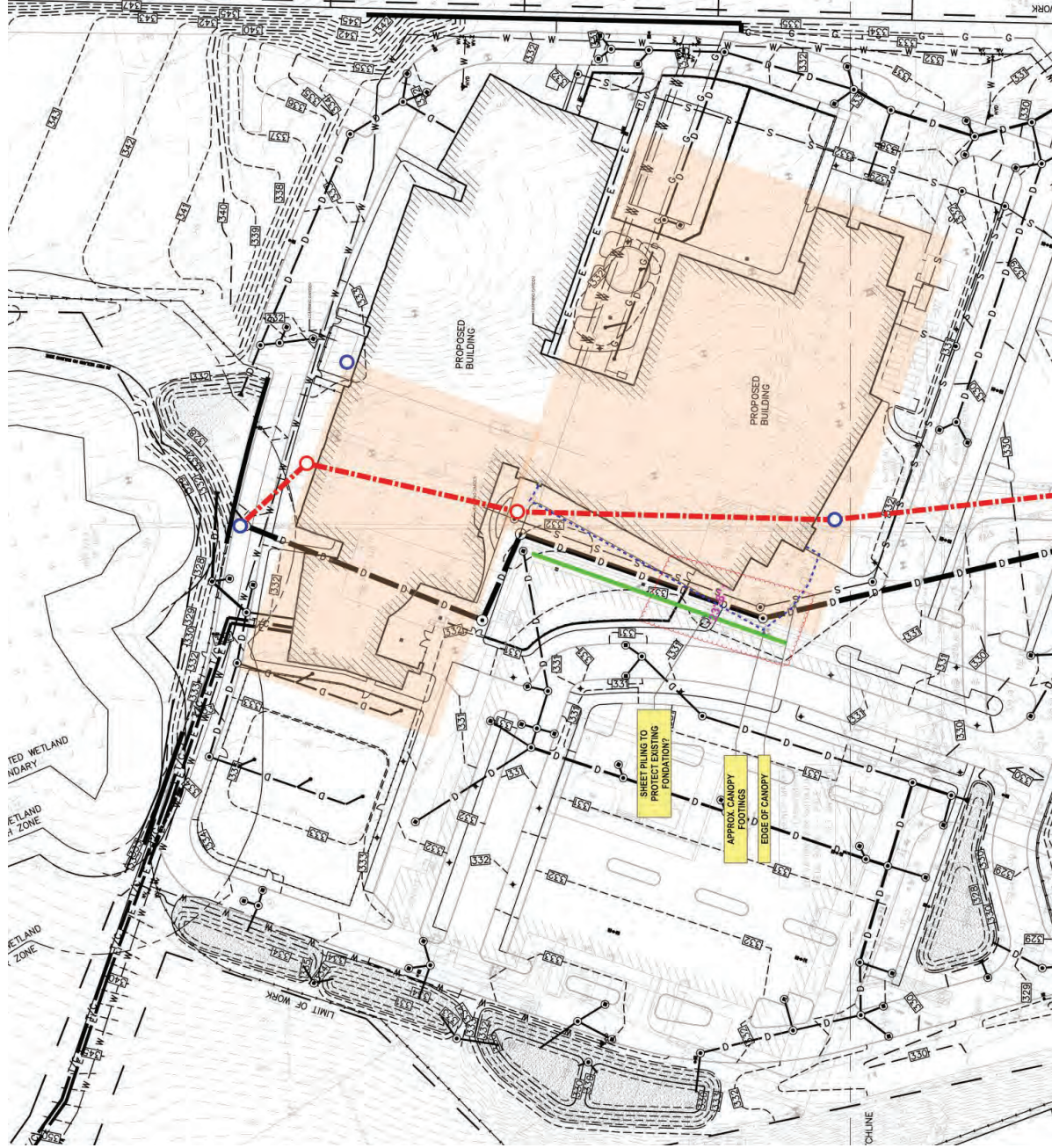
Step 2 - Install permanent  
drain when existing building  
demo'ed

Sequence and depth of  
excavation did not work  
with summer schedule for  
bus lane going on-line for  
Fall 2021



# 36" STORM DRAIN LINE - DD DESIGN OPTION 2

- Two-run drain pipe under A-Wing then C-Wing
- Rejected due to diagonal alignment to building geometry creating too much interference with foundations
- Also more beneficial for construction to be further away from the existing building



# 36" STORM DRAIN LINE - DD DESIGN OPTION 4

- Single-run drain pipe down the middle of the building
- Aligned normal to building geometry, however...
- A greater number of areas of interference with foundations, causes more footings to be deeper
- Pipe located further into hillside – slightly deeper excavation
- Right angle bend in line not ideal



# 36" STORM DRAIN LINE - DD DESIGN OPTION 3

- Single-run drain pipe down the middle of the building
- Line of best fit, aligned well to building geometry with least amount of interference with foundations
- Beneficial for construction to be further away from the existing building
- **PREFERRED ALTERNATIVE**



# COST COMPARISON OF THREE MAJOR OPTIONS

## W.E. BALMER ELEMENTARY SCHOOL

### DESIGN DEVELOPMENT BUDGET WORKSHEET 36" DRAIN ROM LAYOUT OPTIONS

Item	Drawing	Date	Design Phase	Item - Description	ROM Est	Variance +/-	Remarks/ Comments
1	CS.02	3/13/2018	SD Design	<div>SD OPTION 1 - \$499,310</div> <div>36" Drain SD Phase Configuration - Between Existing &amp; Proposed/New Building</div>	\$499,310	\$312,410	Adjacent to existing occupied School. Requires additional piping and costly/earth support/underpinning. See Cost Details Tab - Includes Plan View Screen Shots/Final Quantities - Concrete upon final design requirements. <b>**Expectation is for grade beams to span over pipe and footings to be designed at **optimum elevation to alleviate any **unnecessary requirement for over excavation.</b>
2	CS.00 / CS.02	2/22/2019	DD Base Design	<div>→ DD OPTION 3 - \$186,900</div> <div>36" Drain DD Phase Configuration - Through Building At Angle</div>	\$186,900	\$ -	Least impactful option. See Cost Details Tab - Includes Plan View Screen Shots/Final Quantities - Concrete upon final design requirements. <b>**Expectation is for grade beams to span over pipe and footings to be designed at **optimum elevation to alleviate any **unnecessary requirement for over excavation.</b>
3	CS.05	4/5/2019	DD Design Option 1	<div>DD OPTION 4 - \$214,730</div> <div>36" Drain DD Phase Configuration - Through Building Running Parallel And Shifted Easterly Towards H.5 Foundation Wall Line</div>	\$214,730	\$27,830	Due to alignment shifted eastly and parallel to H.5 line greater impact on foundation cost +. See Cost Details Tab - Includes Plan View Screen Shots/Final Quantities - Concrete upon final design requirements. <b>**Expectation is for grade beams to span over pipe and footings to be designed at **optimum elevation to alleviate any **unnecessary requirement for over excavation.</b>

# OUTSTANDING MINUTES ITEMS

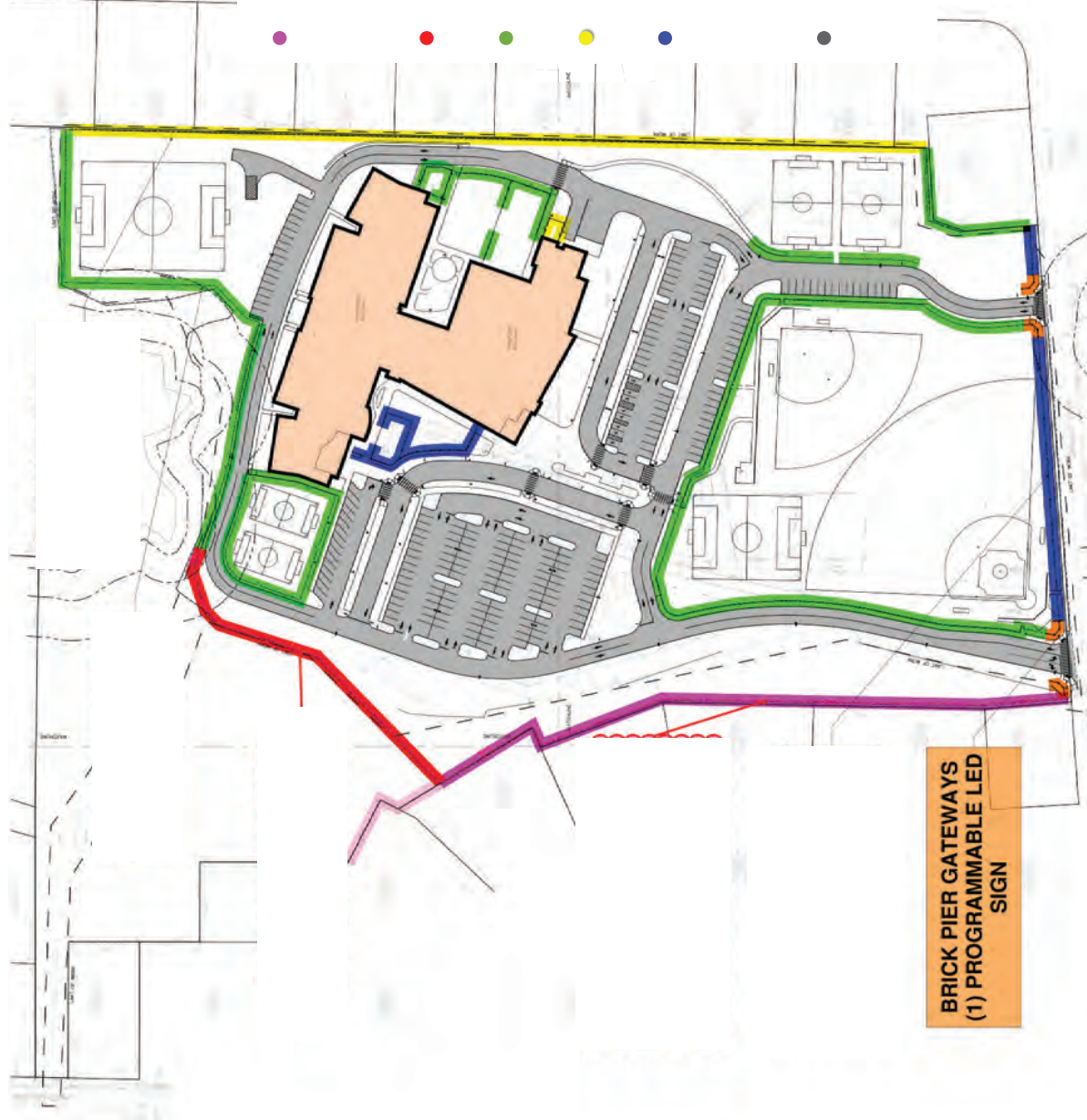
**40.17** T. Hengelsberg to review if the 2-hour fire wall and horizontal sliding doors can be eliminated if fire proofing was added to the Wing A-B and Wing C structure, in addition to the areas around the egress stairs [already in the project].

In SD phase (3/20/18), project cost estimator PM&C provided an analysis that deleted the fire wall and Won-Doors and added spray-applied fireproofing to the entire building to raise the Construction Type from IIB to IIA.

**This option would cost approximately \$259,000 more.**



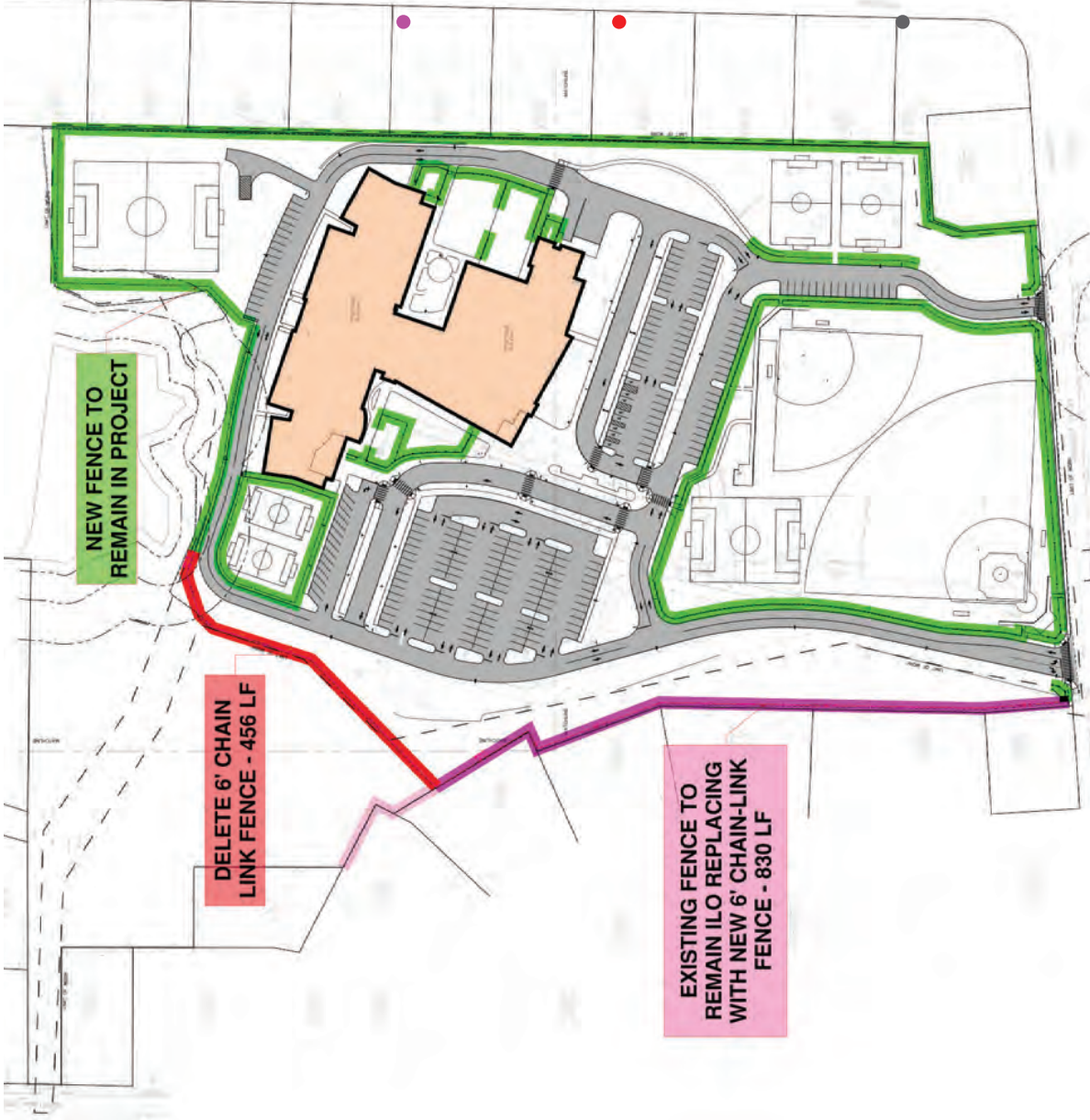
# CURRENT FENCE PLANS



- Replace existing 8' chain link fence with new 6' chain link fence
- New 6' chain link fence
- New 4' chain link fence
- New 6' wood stockade fence
- New 4' ornamental metal fence
- All chain link fence proposed to be black PVC

BRICK PIER GATEWAYS  
(1) PROGRAMMABLE LED  
SIGN

# VE UPDATE: ITEM # L03 CHAIN LINK FENCE



- West property line – existing 8' chain link fence to remain; repair any broken sections

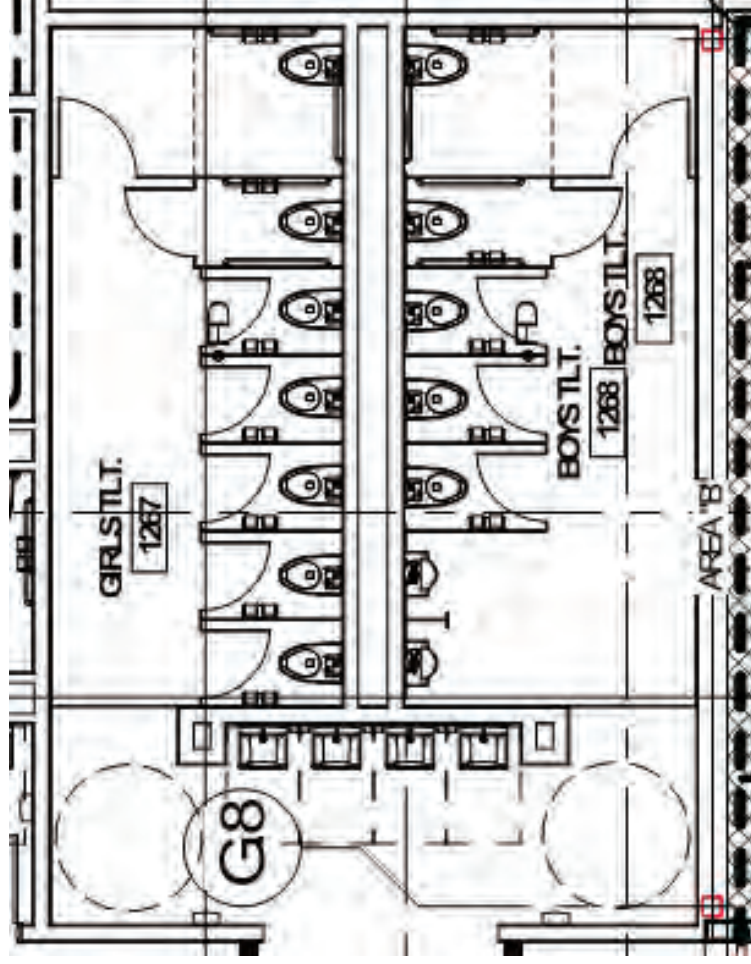
- Delete segment of new fence that connects the west property line to the NW corner near wetland

Rest of the project fencing intact

**Option 1: Deduct (\$83,590)**

# FOLLOW-UP TO OWNER'S COMMENTS

## #2 & 39 - TOILET ROOM PLAN - LAYOUT WITH ENTRANCE SPLIT

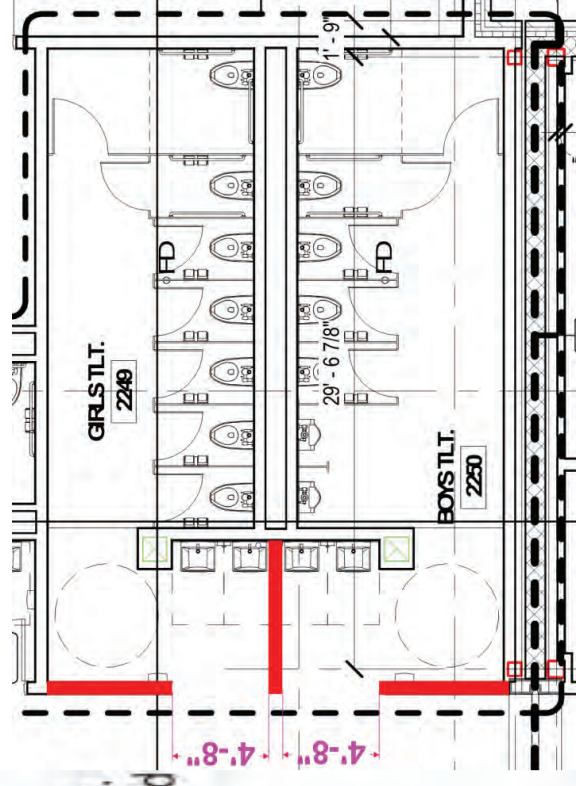


# FOLLOW-UP TO OWNER'S COMMENTS

## #2 & 39 - TOILET ROOM PLAN – LAYOUT WITH ENTRANCE SPLIT

An assessment guide for school restrooms put together by the National Clearinghouse for Educational Facilities identifies these design features as characteristics that improve the safety and security of restrooms and address health concerns associated with hand washing. The document summarizes that sinks and hand dryers should be installed in publicly exposed areas to deter vandalism and encourage hand washing. Installing sinks within view of the corridor reduces the amount of time students are away from supervision. This increased supervision also reduces behavior issues such as harassment and bullying. The National Center for Education Statistics Indicators of School Crime and Safety: 2012 noted 11% of students who reported being bullied at school in 2011 said the incident occurred in a bathroom or locker room. The visual and auditory supervision provided by the proposed design will reduce the likelihood of these behaviors occurring at this age level and promote respectful behavior among students.

SBC requested divider partition at sinks (illustration)



Design Team Recommendation: Keep as designed.



# FOLLOW-UP TO OWNER'S COMMENTS

#33 - D&W Proposal: replace cape cod berm with sloped granite.

ADD \$36,006



# FOLLOW-UP TO OWNER'S COMMENTS

## #19 - WON-DOOR Horizontal-Acting Fire Door – additional code information

- Complying horizontal sliding fire doors may be used in place of side-hinged swing doors in a Means of Egress (in other than Group H occupancies).
- The Won-Door FireGuard fire door meets all performance criteria for horizontal sliding fire doors when used in a Means of Egress as set forth in the IBC, NFPA 101 Life Safety Code and NFPA 80, Chapter 9.
- *2018 IBC: 1010.1.4.3 Special purpose horizontal sliding, accordion or folding doors*
- *2018 NFPA 101 Life Safety Code: 7.2.1.14 Special-Purpose Horizontally Sliding Accordion or Folding Door Assemblies*
- *2019 NFPA 80: Chapter 9, Special-Purpose Horizontally Sliding Accordion or Folding Doors*



# FOLLOW-UP TO OWNER'S COMMENTS

## #19 - WON-DOOR Horizontal-Acting Fire Door – operation information

- The door assembly operates on a 12 volt DC system which includes batteries, a transformer and a microprocessor.
- A 120 volt line connected to a junction box in the storage pocket continually charges the batteries at 13.8 volts.
- Upon activation of a building alarm, the door will close automatically. The speed is typically 10 inches per second.
- Concurrent with the building alarm will be the activation of the horn, an audible signal sounding a steady tone indicating that the system is in the “Fire Mode.” It will remain in this condition until the system is physically reset.



# FOLLOW-UP TO OWNER'S COMMENTS

## #19 - WON-DOOR Horizontal-Acting Fire Door – operation information

- The leading edge of the door is equipped with a sensor. Upon encountering an obstruction the door will stop, pause momentarily, then continue closing.
- Once the door is in the fully closed position it can be reopened by:
  - pressing the Close/Clear rocker switch which will engage the motor and open the partition. This switch is located on one side near the leading edge of the door assembly.
  - depressing the exit hardware pressure plate will cause the door to retract.
  - operating it manually by physically pushing the door back to create an opening. This method can be used if there is a complete loss of power.



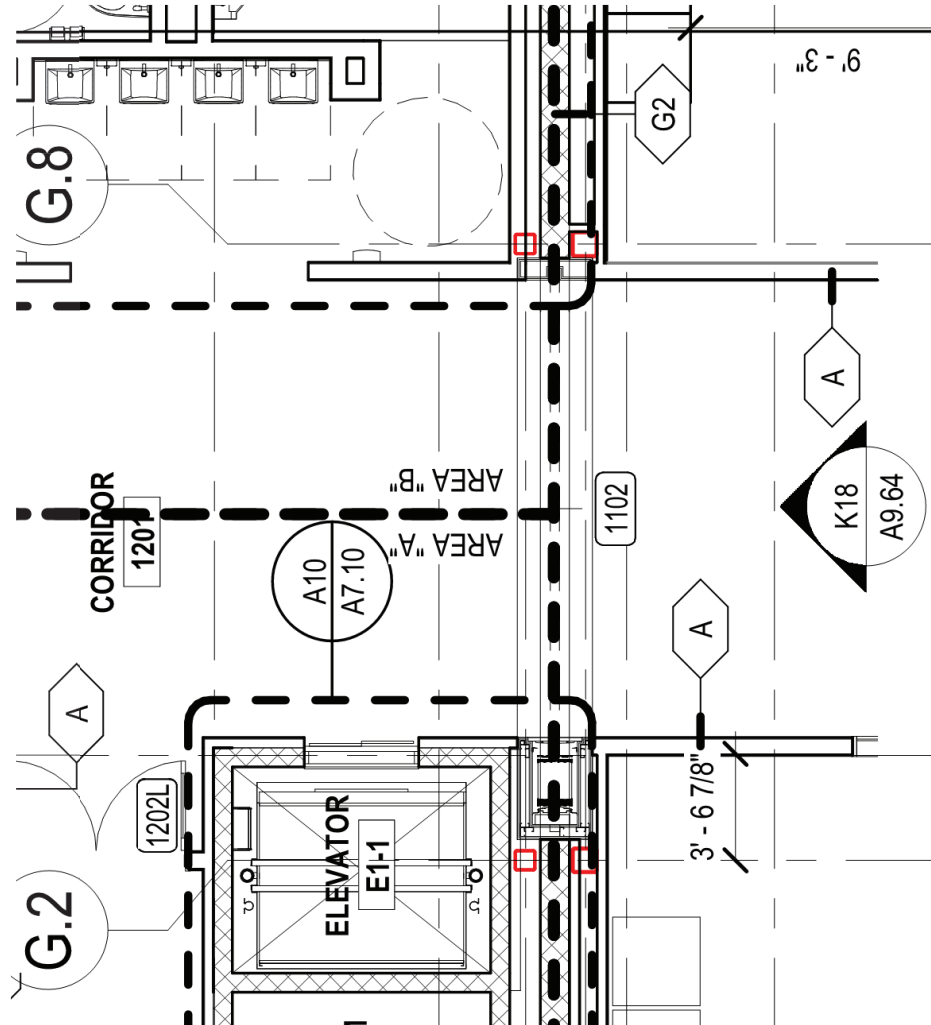
# FOLLOW-UP TO OWNER'S COMMENTS

## #19 - WON-DOOR Horizontal-Acting Fire Door – operation information

- It is recommended that the Won-Door FireGuard assembly be routinely operated at least quarterly. This can be done without setting the building into an alarm condition by using the rocker switch.
- The door is designed, and can be optionally installed, so that it will close upon power loss in the building. If this occurs, the door can be reset into the pocket by pressing the rocker switch to the door open position after the power has been restored.
- Alarm activation will be the major reason that resetting the door will be necessary. Assuming that the condition which initiated the alarm has been cleared, resetting the system is accomplished by operating the rocker switch.



# VE LIST: A04-ITEM 19 AS DESIGNED

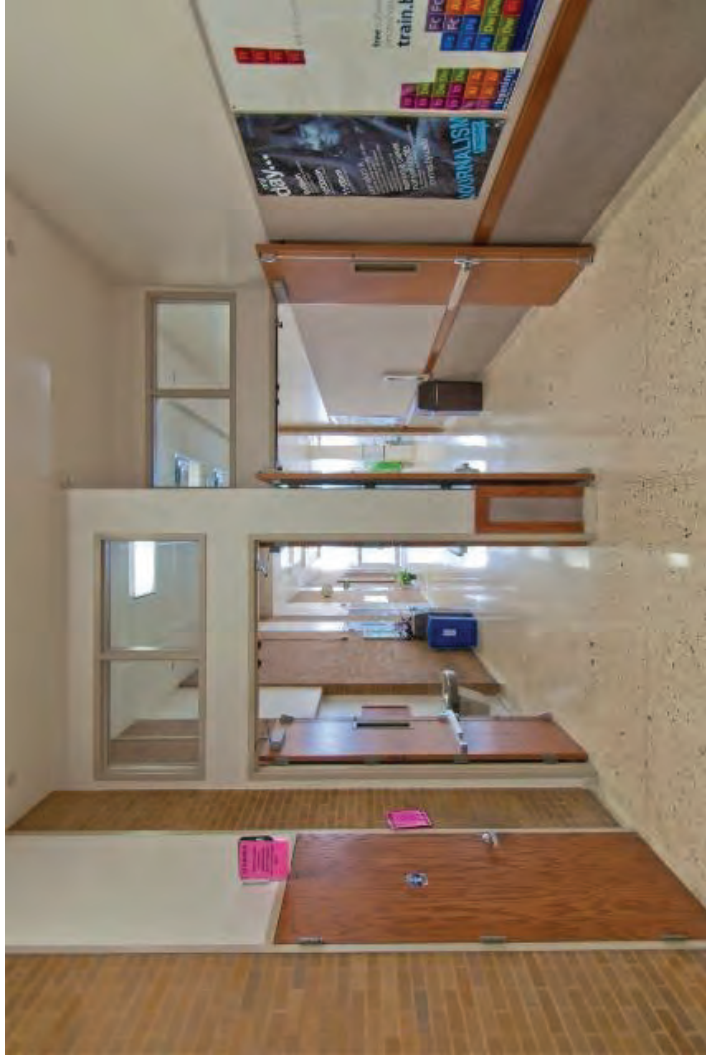
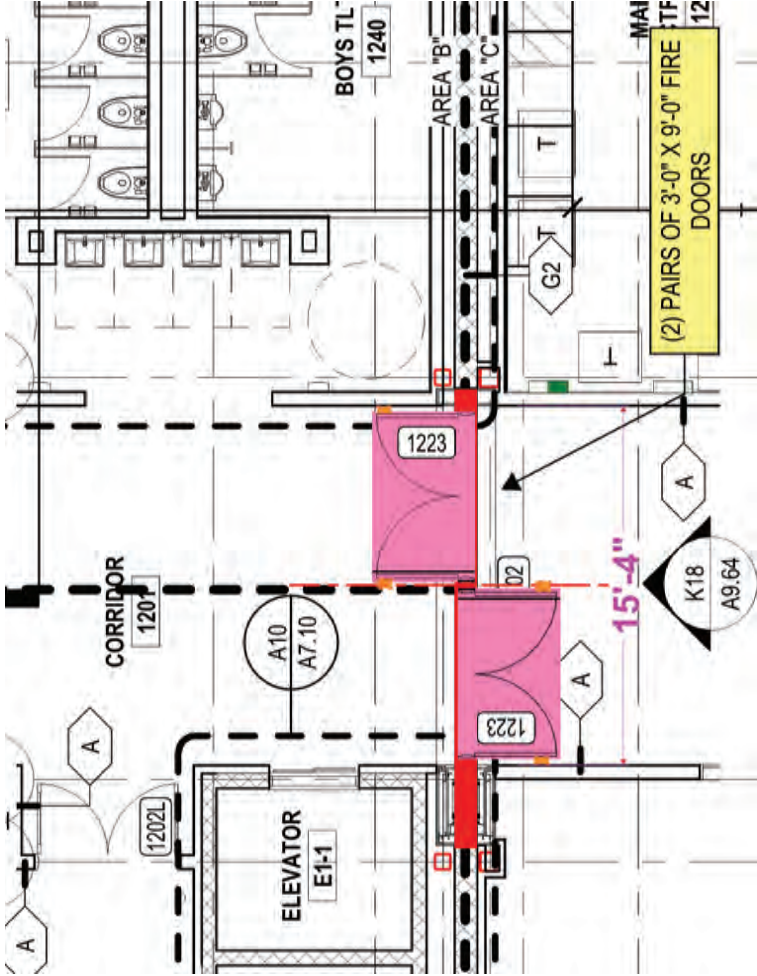


Double egress  
fire doors in  
open position

Won-Door  
open position

A04 Item 19	Provide swinging full-height fire doors [(2) pairs @ 4' w x 9' tall] ILO "Won-Door" sliding fire door (3 levels)	(\$66,932)
-------------	--	------------

# VE LIST: A04-ITEM 1 OPTION 1



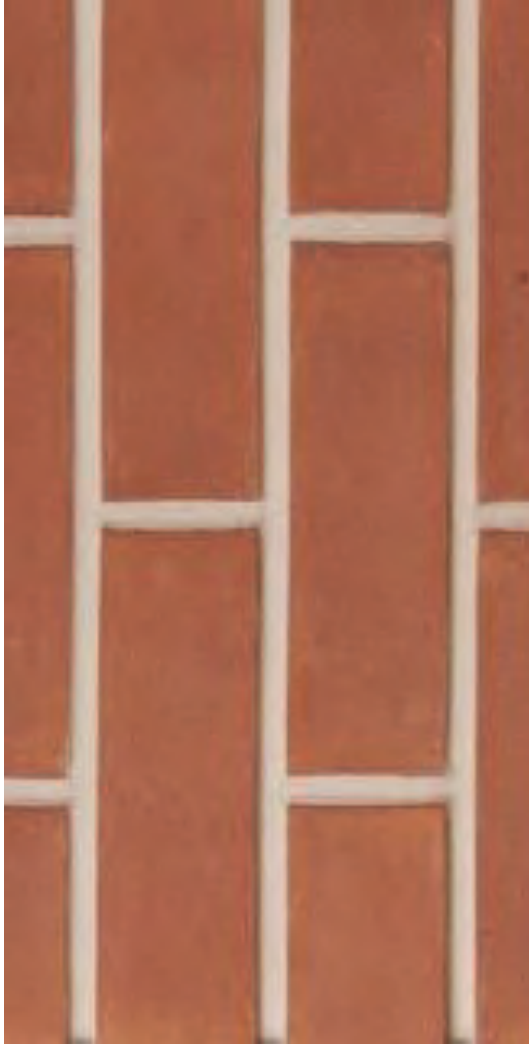
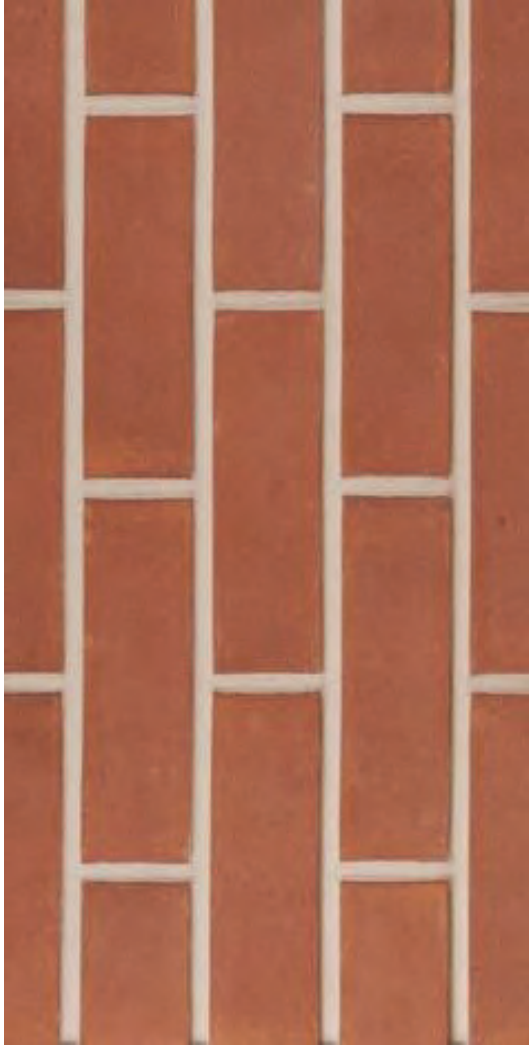
A04	Item 19	Provide swinging full-height fire doors [(2) pairs @ 4' w x 9' tall] ILO "Won-Door" sliding fire door (3 levels)	(\$66,932)
-----	---------	---	------------

# VE LIST: A01- OWNER'S ITEM 16

Design Team Recommendation:  
Keep As designed

MODULAR

UTILITY



A01	A4 dwgs / Item 16	Provide Utility brick ILO standard Modular brick on entire building.	(\$90,585)
-----	----------------------	--	------------

## MODULAR



## UTILITY



## MODULAR



## UTILITY



# MODULAR



# UTILITY





MODULAR



UTILITY



FAÇADE AS CURRENTLY DESIGNED:  
STANDARD MODULAR BRICK, "SHOULDICE" STONE-LOOK CMU



## FAÇADE OPTION 1:

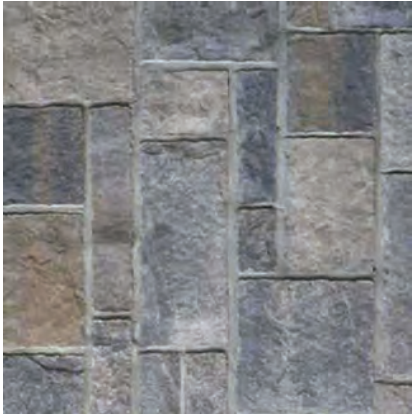
UTILITY BRICK (NOM 4 X 4 X 12"), "SHOULDICE" STONE-LOOK CMU BASE

- Estate Stone is a quality Concrete Masonry Unit.
- Estate Stone exceeds the ASTM C-55-11 specifications.
- Estate Stone will not flake or deteriorate whether it is used above grade, at grade or even below grade.
- **Maximum water absorption by mass not to exceed 8 percent.**
- Manufactured using an integral water repellent agent which inhibits water absorption and efflorescence for a lifetime of performance.
- Minimum compressive strength 4,000 PSI

## "ESTATE STONE" CMU:

Design Team Recommendation:  
Keep As designed

VE LIST: ITEM 17



“Concrete masonry units (CMUs) are characteristically porous building materials. When manufactured in accordance with the industry standard, ASTM C90, *Standard Specification for Load-bearing Concrete Masonry Units*, commonly used lightweight CMUs **absorb up to 17 percent of their weight in water.**

Furthermore, the geographical location where the CMUs are manufactured affects permeability.”

- Construction Specifier, “**Durable Waterproofing for Concrete Masonry Walls: Redundancy Required**”  
June 24, 2014

## "SPLIT FACE" CMU



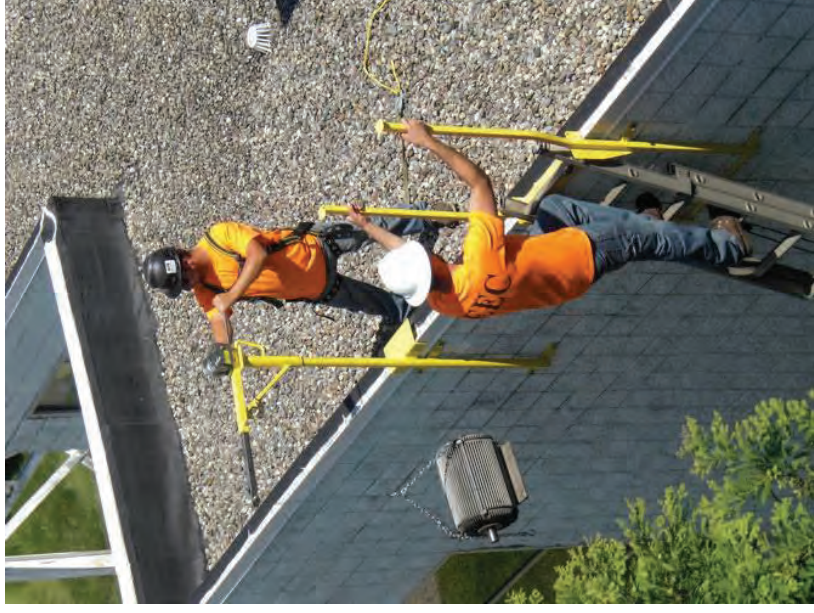
Item 17	Provide Split Face CMU in lieu of Cast Stone Base	(\$76,500)
---------	---	------------



FAÇADE OPTION 2:  
UTILITY BRICK (NOM 4 X 4 X 12"), SPLIT-FACED CMU BASE

Design Team Recommendation: Suggest carrying as an Equipment cost in the FF&E budget

# VE LIST: ITEM 18 ROOFTOP HOISTS



ARTS

00

on

72" wide

0 lbs

Item 28	Delete specified exterior mock-ups and go with in-place ILO	(\$41,000)
---------	---	------------

# VE LIST: ITEM 28



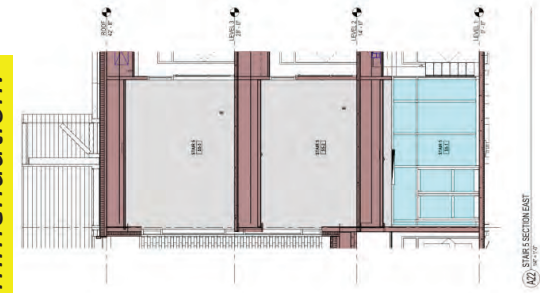
D&W and Fontaine Bros Recommend Stand-Alone Mock Ups

**Design Team Recommendation:  
Keep As designed**

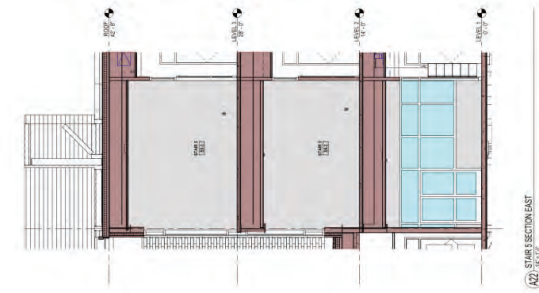
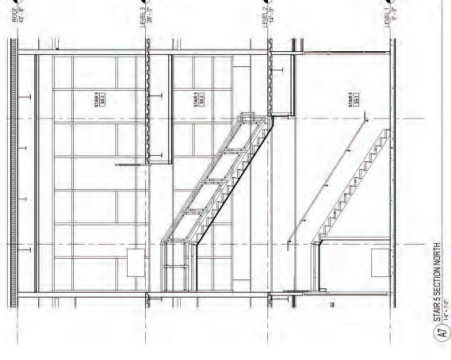
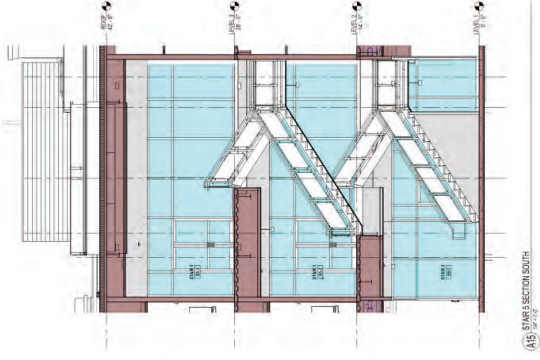
## VE LIST: ITEM A13

- reduce glazed area by ~25%
- **Deduct: \$56,635**

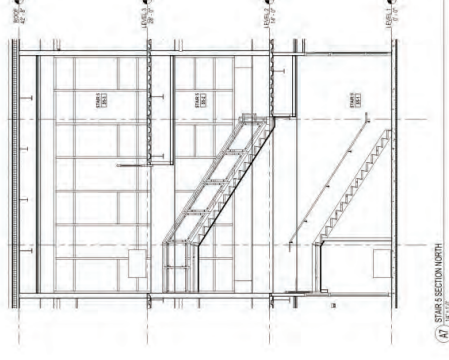
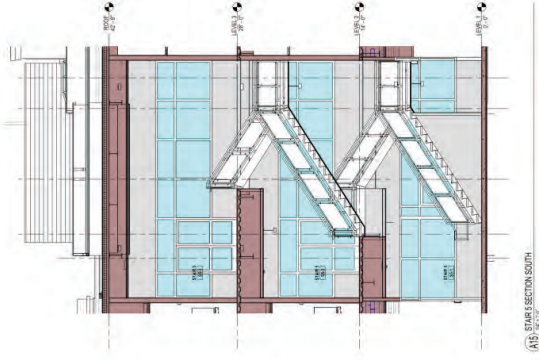
- Stair 5 transparency is central design element
- Main communicating stair for full population
- Lightwell at top to disseminate light through deep floor plate – all levels
- Full view to areas of refuge in case of fire



STAIR 5 ENCLOSURE  
(AS DESIGNED)

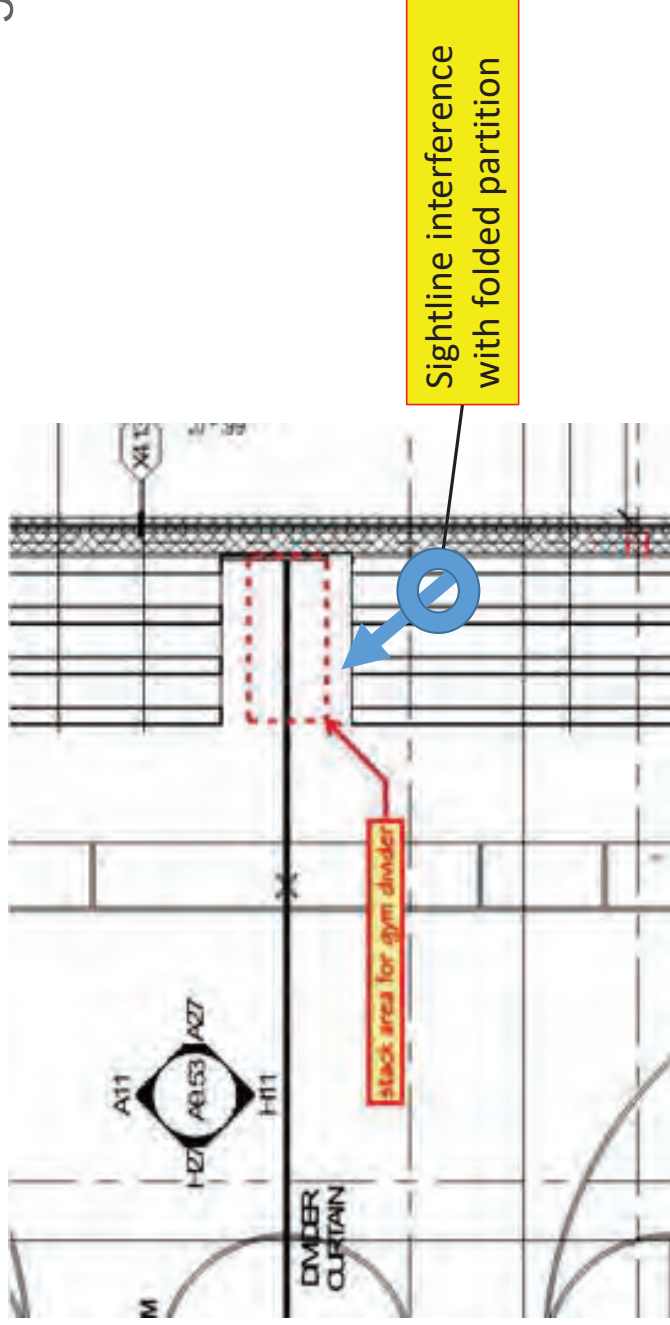


STAIR 5 ENCLOSURE  
(REDUCED FG AREA)



# VE LIST: ITEM A12

- Previously accepted
- Sight line issues



Provide Operable Partition at Gym

Design Team Recommendation: Good VE application

## VE LIST: ITEM E01



ck.com • 718267102

ESE Lightning Preventer 3565



- A lightning protection system is designed to carry current through the building.
- Multiple conductors wired together
- Widely utilized in commercial construction
- The lightning preventer works to deionize the charge in air
- There is a guarantee from the mfgr for property loss (\$10million)
- Single conductor
- Works well for buildings with large roof areas

Lightning Preventer System ILO Lightning Protection System (\$50,845)

# PROPRIETARY ITEMS

23 00 10	BMS/ Mechanical Controls	Building HVAC Controls
	CONTROLS WILL BE OPEN SPEC	
27 20 00	Data Communication System, Network Switches: Aruba 5400 series	At MDF Room.
27 20 00	Data Communication System, VOIP Telephone System: <b>TBD</b>	Throughout the school.
27 20 00	Data Communication System, Wireless Access Points: Aerohive, AP250 and/or AP550.	Throughout the school.
28 10 00	Integrated Access Control/ Intrusion Detection/ Video Surveillance Platform/System: <b>TBD</b>	Throughout the school.
	NO OTHER CHANGES	



# EARLY RELEASE PACKAGES

## Construction Cost Control Budget Breakdown

Early Site Package (ERP #1)	\$10,913,588
Concrete/Steel Package (ERP # 2)	\$11,113,448
Final Package	<u>\$57,453,407</u>
Total	\$79,480,442



*Thank You!*

