

**PROJECT MINUTES**

Project:	New W. Edward Balmer Elementary School	Project No.:	17020
Prepared by:	Joel Seeley	Meeting Date:	4/2/19
Re:	School Building Committee Meeting	Meeting No:	41
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
41.1	Record	Call to Order, 6:37 PM, meeting opened.
41.2	Record	A. Chagnon announced the meeting will be video and audio recorded with live broadcast and future re-broadcast.
41.3	Record	A. Chagnon introduced A. McKinstry as the interim Superintendent of Schools and SBC member.
41.4	Record	Warrant No. 24 was reviewed. A motion was made by M. LeBrasseur and seconded by P. Bedigian to approve Warrant No. 24. No discussion, motion passed unanimous.
41.5	Record	J. Kent distributed and reviewed the Price Proposal for Preconstruction Survey of surrounding abutter properties to be performed prior to construction commencement in the amount of \$5,200, attached.  Committee Discussion:  1. A. Chagnon asked if the certified notifications would be addressed separately? <i>J. Seeley indicated yes, if needed.</i>  A motion was made by P. Bedigian and seconded by J. Lundquist to authorize FBI to proceed with the Preconstruction Survey. No discussion, motion passed unanimous.
41.6	Record	J. Seeley distributed and reviewed the updated draft 60% Construction Documents Meetings and Agenda Schedule, attached. M. LeBrasseur indicated the School Committee has set aside May 6, 7 and 8 for superintendent interviews, which may conflict with the May 8 SBC meeting, he will keep the Committee informed as the date gets closer.
41.7	M. DiSalvo	M. DiSalvo to work with the school department to define, in the specifications, sufficient training requirements for the school department's maintenance staff, including video-taping.
41.8	T. Hengelsberg	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.
41.9	T. Hengelsberg	T. Hengelsberg to provide detailed cut and fill analysis, by material, with the Design Development Pricing Set for Committee review.
41.10	T. Hengelsberg	T. Hengelsberg to provide existing top soil characterization for gradient and nutrient enhancements for Committee review.
41.11	T. Hengelsberg	T. Hengelsberg to refine the sidewalk layouts for a future Committee meeting.
41.12	T. Hengelsberg	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.
41.13	T. Hengelsberg	T. Hengelsberg to provide options to the Cape Cod Berm.
41.14	T. Hengelsberg	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.
41.15	T. Hengelsberg	T. Hengelsberg to provide the STC for the Stage Operable Wall with a comparison against a CMU wall.

Item #	Action	Discussion
41.16	T. Hengelsberg	T. Hengelsberg to provide a written code interpretation for their Code Consultant that the three-story shaft is not an Atrium.
41.17	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.
41.18	R. Maglione	<p>T. Hengelsberg distributed and reviewed a Listing of Proprietary Specifications, attached, for Committee vote to approve and recommend approval by the School Committee, whose vote to approve is required to be submitted to the MSBA.</p> <p>Committee Discussion:</p> <ol style="list-style-type: none"> <li>1. M. LeBrasseur asked why is the School Committee required to approve Proprietary Specifications? <i>J. Seeley indicated that the MSBA requires a vote be taken by an elected body of the District, such as the Selectmen or School Committee, for proprietary specifications that are included in the project.</i></li> <li>2. M. LeBrasseur asked if the listed proprietary specifications are what is typically found in other school projects? <i>L. Dore indicated yes and that this list is smaller compared to other recent D&amp;W school projects.</i></li> <li>3. J. Lundquist asked if some of the proprietary specifications, such as Building Energy Management System, can be listed as a bid alternate to control the bid cost? <i>L. Dore indicated no, as the District will have taken a public vote that the proprietary specification was required, making it an alternate would go against that vote.</i></li> <li>4. M. LeBrasseur asked if the MSBA would disapprove any of the proprietary specifications? <i>J. Seeley indicated no, submission of the vote to MSBA is required to ensure that local communities have decided to include proprietary specifications in an open public process.</i></li> <li>5. Section 230010 Building Energy Management System 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 at the next Committee meeting.</li> </ol> <p>The Committee will defer the vote until Section 230010 Building Energy Management System and Section 281000 Integrated Electronic Security System are resolved.</p>
41.19	T. Hengelsberg	<p>T. Hengelsberg distributed and reviewed the Response to Owner's Comments to the Design Development documents, attached. The Value Engineering related comments were reviewed under the Value Engineering discussion.</p> <p>Committee Discussion:</p> <ol style="list-style-type: none"> <li>1. T. Hengelsberg distributed the requested Site Lighting Catalog Cut Sheets, attached.</li> </ol>

Item #	Action	Discussion
		<ol style="list-style-type: none"> <li>T. Hengelsberg to review options to provide a divider between the bathroom sinks in the upper grades to separate the boys and girls and present to the Committee.</li> <li>T. Hengelsberg to review options to reduce the extent or type of glazing in Stair 5 and present to the Committee.</li> </ol>
41.20	L. Dore	<p>T. Hengelsberg distributed and reviewed a Listing of Value Engineering Items, attached.</p> <p>Committee Discussion:</p> <ol style="list-style-type: none"> <li>L. Dore to confirm if the VE cost for the “SecureShade” is the net add, after factoring in the deletion of the manual shade at each location.</li> <li>L. Dore to confirm the status of the “SecureShade” sample installation.</li> <li>L. Dore to confirm if a Digital Site Sign is allowed by Zoning Bylaw.</li> <li>L. Dore to develop options to incrementally reduce the extent of chain link fencing.</li> <li>L. Dore to develop options for a smaller capacity roof davit.</li> <li>L. Dore to obtain feedback from other D&amp;W school projects regarding their experience with the “Won-Door” horizontal sliding fire door.</li> <li>L. Dore to develop large scale exterior images to convey the effect of Utility Brick versus Standard Modular Brick and Split Face CMU versus Cast Stone Base.</li> </ol> <p>A motion was made by J. Lundquist and seconded by M. LeBrasseur to incorporate any accepted Value Engineering items into the 60% Construction Documents and submit the Design Development documents as-is to the MSBA. No discussion, motion passed unanimous.</p> <p>A motion was made by J. Lundquist and seconded by M. LeBrasseur to approve Value Engineering items C01, L01, L02, A02, 38 and P01. No discussion, motion passed unanimous.</p> <p>A motion was made by J. Lundquist and seconded by P. L’Hommedieu to approve Value Engineering items A03, A04 and A05. No discussion, motion passed unanimous.</p> <p>D&amp;W requested that the Committee decide Value Engineering items A01 and 17 at the next Committee meeting in order to maintain document progress.</p>
41.21	Record	<p>A Motion was made by J. Lundquist and seconded by M. LeBrasseur to approve the Design Development Submittal and authorize submission to the MSBA. No discussion, motion passed unanimous.</p>
41.22	Record	<p>J. Seeley provided an overview of the process and timing for Trade Prequalification, GMP Amendment Approvals for the Early Site Package and the Early Concrete and Steel Package, and GMP Approval for the whole project.</p> <p>The Trade Prequalification Committee to be appointed at the next Committee meeting.</p>
41.23	T. Hengelsberg J. Strazzulla	<p><b>Site Permitting</b></p> <ol style="list-style-type: none"> <li>J. Seeley distributed the updated Project Schedule, attached.</li> </ol>

Item #	Action	Discussion
		<p><b>Conservation Commission</b></p> <ol style="list-style-type: none"> <li>1. The NOI application to be submitted on 4/3/19.</li> <li>2. The Approved ORAD, recorded at the Registry of Deeds is attached.</li> </ol> <p><b>Planning Board</b></p> <ol style="list-style-type: none"> <li>1. The Site Plan Approval application to be submitted on 4/9/19.</li> <li>2. CDM, the town's consultant, is performing the sewage capacity analysis study.</li> <li>3. T. Hengelsberg to review the staff counts relative to the amount of staff members for each grade in SPED and paraprofessionals with K. Ross and J. Healy.</li> <li>4. J. Strazzulla to review the parking requirements for weekend soccer with Youth Soccer.</li> <li>5. The Zoning Analysis is under review for determination on a waiver or variance process, the Zoning Bylaw Summary letter, dated 3/27/19 is attached.</li> </ol>
41.24	Record	<b>Committee Questions</b> - none
41.25	Record	<p><b>Old or New Business</b></p> <ol style="list-style-type: none"> <li>1. M. LeBrasseur indicated the School Committee will be voting on the new School Name at their 4/23/19 meeting.</li> </ol>
41.26	Record	Next <b>SBC Meeting: 4/24/19 at 6:30 pm</b> at the High School Media Center. The anticipated agenda items are reviewing the 60% Construction Document schedule and deliverables, design refinements and site permitting update.
41.27	Record	A Motion was made by M. LeBrasseur and seconded by P. Bedigian to adjourn the meeting. No discussion, motion passed unanimous.

Attachments: Agenda, Warrant No. 24, Price Proposal for Preconstruction Survey, updated draft 60% Construction Documents Meetings and Agenda Schedule, Listing of Proprietary Specifications, Response to Owner's Comments to the Design Development documents, Site Lighting Catalog Cut Sheets, Listing of Value Engineering Items, Project Schedule, Approved ORAD, Zoning Bylaw Summary letter, dated 3/27/19, Powerpoint


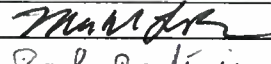
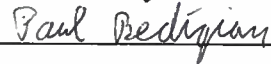

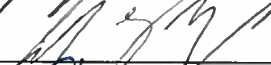



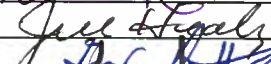


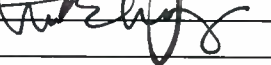
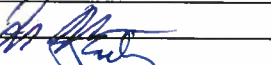
The information herein reflects the understanding reached. Please contact the author if you have any questions or are not in agreement with these Project Minutes

## 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: 4/2/2019  
 Meeting No: 41  
 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@northbridgemass.org">agaudette@northbridgemass.org</a>	Town Manager
	Dr. Catherine Stickney	<a href="mailto:cstickney@nps.org">cstickney@nps.org</a>	Superintendent of Schools, NPS
	Amy McKinstry	<a href="mailto:amckinstry@nps.org">amckinstry@nps.org</a>	<del>Interim Superintendent</del> Director of Curriculum, NPS
	Richard Maglione	<a href="mailto:rmaglione@nps.org">rmaglione@nps.org</a>	Building Maintenance Local Official
	Karlene Ross	<a href="mailto:kross@nps.org">kross@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
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	Mark Abdella	<a href="mailto:mabdella@fontainebros.com">mabdella@fontainebros.com</a>	Fontaine Bros., Inc.
	Jim Mauer	<a href="mailto:jmauer@fontainebros.com">jmauer@fontainebros.com</a>	Fontaine Bros., Inc.
	Joel Seeley	<a href="mailto:jseeley@smma.com">jseeley@smma.com</a>	SMMA

1000 Massachusetts Avenue  
 Cambridge, MA 02138  
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## Agenda

Project:	W. Edward Balmer Elementary School Feasibility Study	Project No.:	17020
Re:	School Building Committee Meeting	Meeting Date:	4/2/2019
Meeting Location:	High School Media Center	Meeting Time:	6:30 PM
	427 Linwood Avenue, Whitinsville, MA	Meeting No.	41
Prepared by:	Joel G. Seeley		
Distribution:	Committee Members (MF)		

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1. Call to Order
2. Public Comments
3. Approval of Minutes
4. Approval of Invoices and Commitments
  - Preconstruction Survey
5. Review Proprietary Materials
6. Review Response to Owner's Comments
7. Review Value Engineering Pricing
8. Review Design Development Estimates
9. Vote to Submit Design Development Package to MSBA
10. Discuss Early Package Procurement Process
  - Trade Contractor Prequalification
  - GMP Amendments
  - Full GMP
11. Site Permitting Update
  - Conservation Commission
  - Planning Board
12. New or Old Business
13. Committee Questions
14. Next Meeting: April 24, 2019
15. Adjourn



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

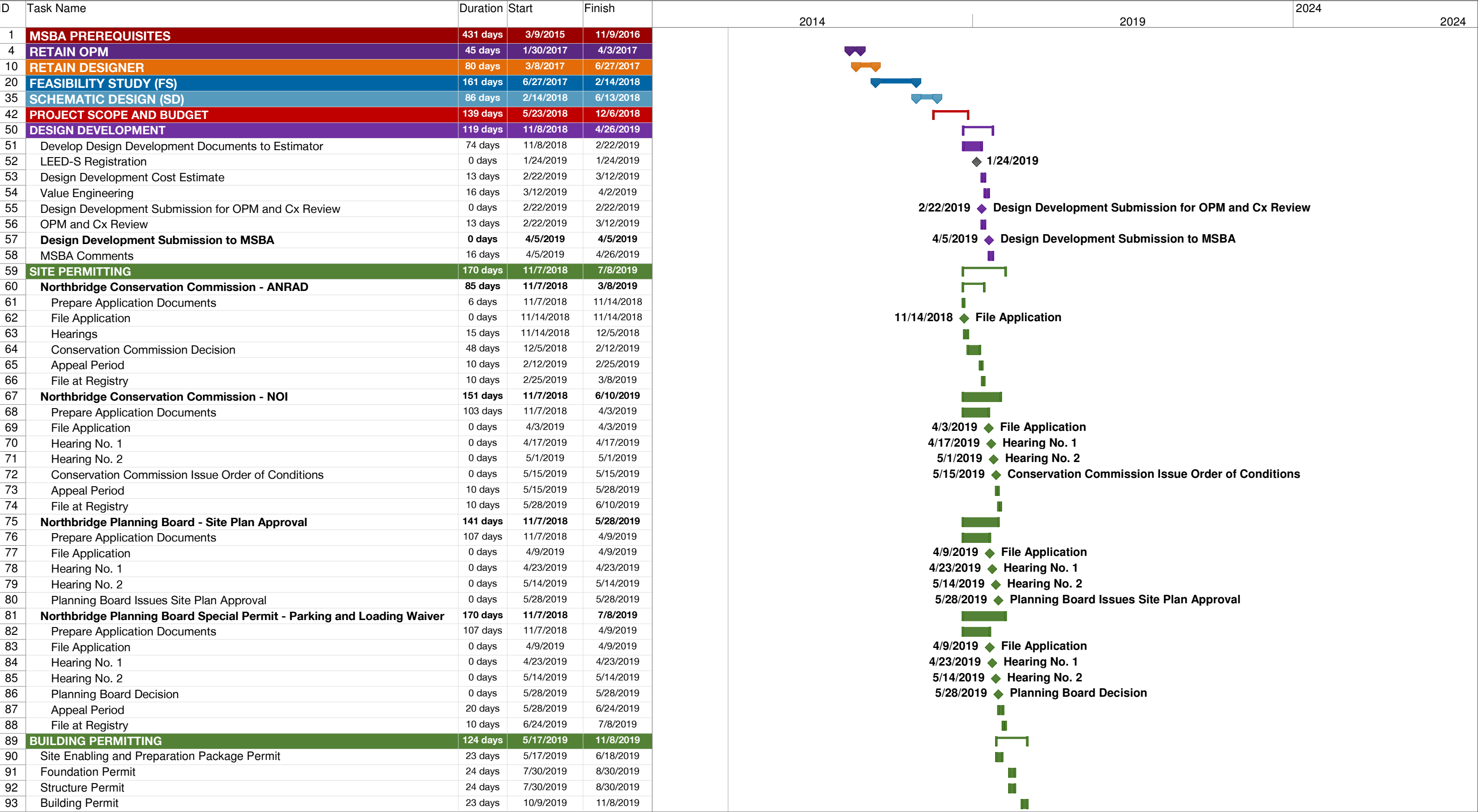
All meetings held at the  
**High School Media Center at 6:30 PM**  
unless otherwise noted

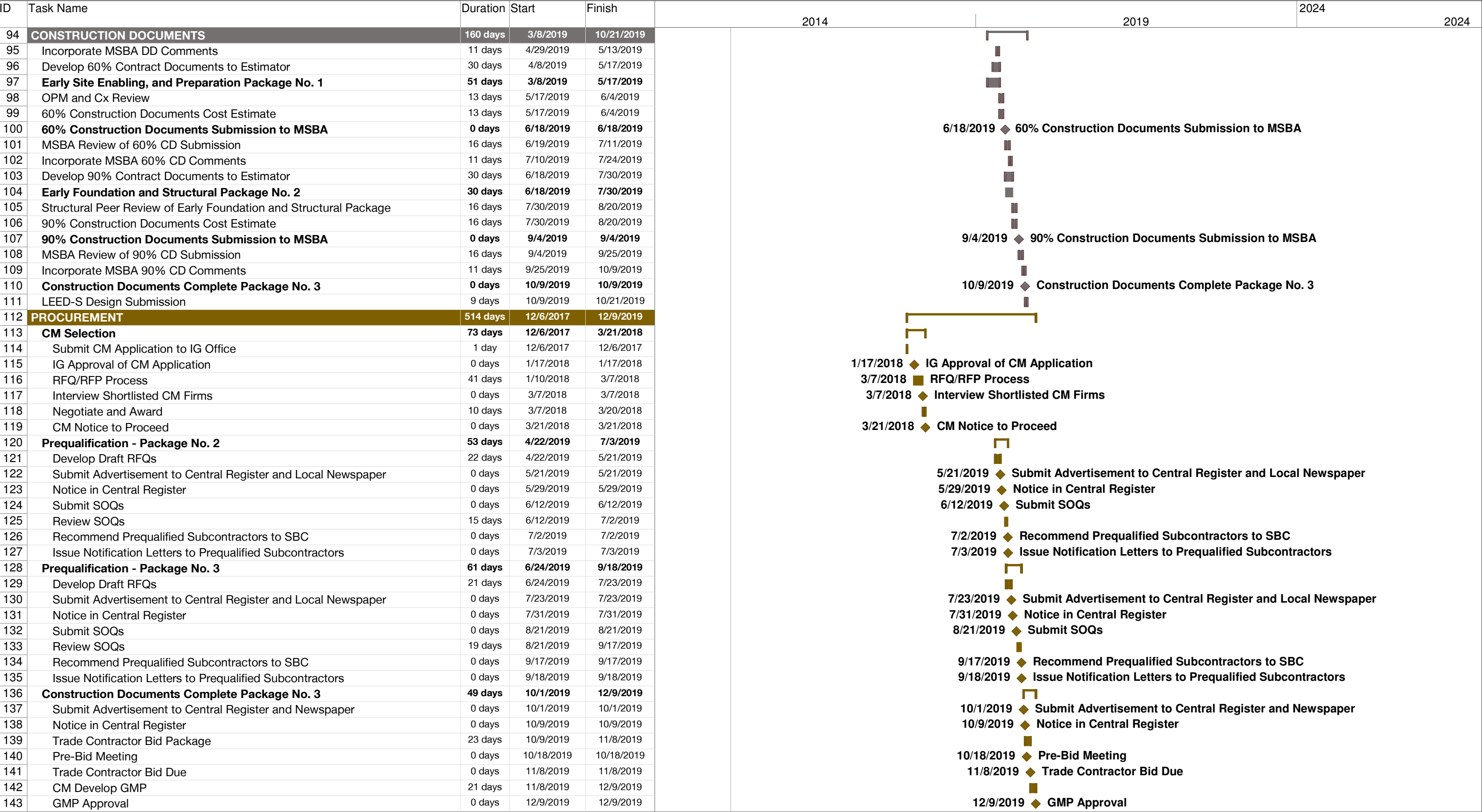
**MEETINGS SCHEDULE AND AGENDAS**

**March 15, 2019 - Updated April 2, 2019**

DATE	AGENDA
<b>60% Construction Documents Phase</b>	
April 17, 2019	CONSERVATION COMMISSION HEARING NO. 1 - DATE TBD
April 23, 2019	PLANNING BOARD HEARING NO. 1 - DATE TBD
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 - DATE TBD
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
May 28, 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







ID	Task Name	Duration	Start	Finish					2014	2019	2024
144	EARLY PACKAGES PROCUREMENT	72 days	5/17/2019	8/28/2019							
145	Early Site Package No. 1	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	Early Foundation and Structural Package No. 2	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	CONSTRUCTION	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	Substantial Completion - Phase 1 "Enabling Work"	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	Substantial Completion - Phase 2 "Building Construction"	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	Occupancy	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	Substantial Completion - Phase 3 "Demolition and Site Work"	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							

February 28, 2019

Mr. James Sheehan, Building Inspector  
Town of Northbridge  
Aldrich School Town Hall Annex  
14 Hill Street  
Whitinsville, MA 01588



RE: W. Edward Balmer Elementary School – Zoning Bylaws Analysis

Dear Jim,

Following is our analysis of the Northbridge Zoning Bylaws as they apply to the project to construct a new Grades PK-5 elementary school on the site of the existing Balmer school, which will also involve the Vail Field parcel as part of the project. As requested, we are showing where the project meets the requirements of the bylaws, where it does not, and the mitigating factors that will demonstrate in our professional opinion, that there will be no substantial detriment to the public good or undue burdens placed on the town if it allows the non-conforming aspects of the project to be approved by waiver or variance. This letter is not an exhaustive analysis; only portions of the Zoning Bylaw that have direct bearing on the proposed development are included here.

I. LAND USE, VAIL FIELD

The Town Legal Counsel, KP Law, through its deed research, has determined that Vail Field is not subject to Article 97 (Change of Use of Public Parklands) regulations (letter attached). Furthermore, all existing athletic facilities are proposed to be replaced in-kind, in a new configuration, as part of the proposed site plan.

II. ZONING BYLAWS ANALYSIS

173-4 ZONING MAP:

The project site sits partially in two zones. The south portion (Crescent Street frontage) including Vail Field and some portion of the school parcel sits in zone R-5. The rear portion which includes the balance of the school parcel sits in zone R-2. The majority of the new school is located in the R-2 zone, which is used below for side yard setback calculations. The site is not part of any Overlay District, and is not located in a Floodway or Flood Plain district.



Figure 1 - Northbridge Zoning Map (partial) – May 2016, with property identified

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](http://www.doreandwhittier.com)



173-12 USE REGULATIONS:  
Community Public Educational Facilities are a permitted use in Zones R-2 and R-5. (Table 173-12, Att. 2)

173-13.2 EROSION CONTROL:  
The project will be subject to MA law and guidelines for construction erosion control, and an Erosion Control Plan will be submitted to the Town as part of the construction permit process. (Table 173-18.2. C and D)

173-20 HEIGHT AND BULK REGULATIONS:

TABLE 1: Dimensional Requirements per Zoning Bylaws (173-20 + 173 - Att. 1)

	Min. Lot Area (sq. ft.)	Min. Contiguous Frontage	Min. Front Yard Setback	Min. Side Yard Setback	Min. Rear Yard Setback	Max. Height in Stories	Max. Height in Feet*	Max. Total Lot Coverage (%)
Required R-2	20,000	100'	40'	10'	40'	2.5	35'	20%
Required R-5	5,000	60'	15'	8'	20'	3	45'	50%
Existing**	1,310,285	730'	30'	50'	310'	2	23'-6"	4 %
Proposed New Project - Actual Measurements (Re. R-2 zone)	1,310,285	730'	565.64'	384.7' west 42.65' east*	307.15'	3 *	44'-4" *	5.65 %
* "Any maximum height permitted shall not apply to a community facility provided that the side and rear yards or setbacks required in the district for the highest permitted principal structure shall be increased two feet in width for each foot by which the height of such structure exceeds the height permitted in the district." See calculation below.								
** Existing calculations are based on property ID: 7-138 (parcel the school building sits within.)								

173-20 SIDE YARD SETBACK CALCULATION:

Exception for Community Facilities (Sec 173-20: Table Notes)

**Height 43'-10" to cornice; nominally 44'-4" to average grade.**

R-2 Allowable Height = 35'  
Proposed Height = 44'-4" (44.33')  
Height Delta = 9.33'  
Setback multiplier = 2.0  
Added Setback 18.66'  
Base Side Setback 10'  
Required Side Setback 28.66'

Actual Side yard Setback 42.65' at northeast corner

173-27 OFF-STREET PARKING AND LOADING REQUIREMENTS:  
For reference, the existing structure has 96 paved, striped, legitimate parking spaces, and two loading spaces adjacent to the loading dock.

Parking:

Zoning Requirement: Community Facilities - Schools: 1 space per 300 NSF (table in Sec 173-27.C)

Building NSF = 111,568 NSF

Zoning Requires 372 parking spaces

Desired Parking Program per District Working Group:

156 Staff + 24 Visitors 180 spaces

Additional Event Parking 89 spaces

Total Parking on Site Plan 246 spaces

Seeking Variance or Waiver for 126 spaces

**We are submitting an "Overflow Parking Plan" that will yield an additional 54 spaces (drawing attached). This brings the total on-site parking capacity to 300 spaces.**

Loading Areas:

Zoning requires 1 per 7,500 NSF + 1 per 15,000 NSF in excess (table 2 in Sec.173-27.C)

Building NSF = 111,568 NSF

Zoning requires: 8 loading spaces

Project has: 2 loading spaces

**Seeking Variance or Waiver for 6 loading spaces**

Per the request of the Technical Review Committee at our 1/23/19 meeting, we are submitting a verification of the school's parking needs as well as a Parking and Event Analysis which shows that there are no likely scenarios that will exceed the total onsite parking capacity. Most scenarios will easily be accommodated with the proposed 246 spaces, and the few high-capacity events will be accommodated using the Overflow plan for 300 spaces. (Documents attached)

Additional Zoning Requirements:

Proposed Parking and Loading Spaces are all on the same lot as the building served. (Sec.173-27.D.1, .2)

Proposed spaces are 9' x 18' with 24' drive aisle in lot configurations. Parallel parking spaces in the Overflow Plan are 9' x 22' with a minimum 12' drive lane accessing them. (Sec.173-27.D.3)

The proposed number of driveways accessing the public way (Crescent Street) is limited to two. (Sec.173-27.D.4)

Proposed two-way drive ways are 22 feet wide, two lanes of 11 feet. (Sec.173-27.D.5)

Loading spaces shall be 600 SF for the first 7,500 NSF and 500 SF for each additional 15,000 NSF. There are two spaces of 600 SF. The project has two proposed loading spaces of 900 SF that will accommodate a semi-trailer or straight truck. (Sec.173-27.D.9)

Handicapped parking spaces are provided in accordance with MAAB and ADA requirements. There are 8 H/C spaces on the site, where a minimum of 7 are required. (Sec.173-27.D.12; MAAB 521 CMR 23.2.1)

The balance of regulations 173-27.D 1-13 have been incorporated in the site plans.

The proposed plan includes landscaping plant materials (primarily trees to screen and shade the parking lot areas. (173-27.F.3 – (a)-(c) )

173-28 AREA, CONSTRUCTION AND LIGHTING STANDARDS

The west parking lot is approximately 100 feet and 20-30 feet down-slope from neighbors to the west. Parking lot islands feature trees which will screen the parking from views from above. It is our interpretation that solid screen walls are not required in this condition. The east parking is screened by both solid 6' stockade fencing at the property line, and dense evergreen shrubbery between the fence and the parking lots. Other provisions of this section are being complied with (D - lighting) or are not applicable (B, C). (173-28.A-D)

Please contact me if you have any question on the above material, and we look forward to continuing the permitting process for this project.

Sincerely,

**DORE & WHITTIER ARCHITECTS, INC.**

Architects ■ Project Managers



Tom Hengelsberg, AIA  
Project Manager

Attachments

cc: File

August 31, 2017

**David J. Doneski**  
[ddoneski@k-plaw.com](mailto:ddoneski@k-plaw.com)

Northbridge School Building Committee  
Town Hall  
7 Main Street  
Whitinsville, MA 01588

Re: W. Edward Balmer Elementary School, Executive Office of Energy and Environmental  
Affairs Article 97 Land Disposition Policy

Dear Members of the School Building Committee:

I have reviewed the identified deed for the Balmer School site – deed of Whittin Machine Works to Town of Northbridge dated April 24, 1963 and recorded with the Worcester Registry of Deeds in Book 4369, Page 342. The deed conveyed 4 parcels to the Town. Parcel 1 is land on the northwesterly side of Crescent Street and the northeasterly side of North Main Street, said to contain 9.04 acres and Parcel 2 is a parcel northwesterly of Parcel 1 said to contain 21.04 acres. The copy of the deed provided by the Assessors' office includes the annotation that the land conveyed encompasses Assessors' Map 7, parcels 138 and 141. According to the Assessors' property card record for the Balmer School property, the school site has an address of 11 Crescent Street, is shown as parcel 138 on Assessors' Map 7, and contains 30.04 acres. (Assessors' Map 7 shows parcel 138 as containing 21.04 acres, with the designation "Balmer School" and parcel 141 as containing 9.04 acres.) Accordingly, it is my understanding that the school site is Parcel 1 and Parcel 2 described in the deed. (Parcel 3 is described as land on the northerly side of Plummer Road a/k/a Church Street, between Providence Road and Quaker Street, consisting of 2.51 acres; and Parcel 4 is described as land on the westerly side of Linwood Avenue, consisting of 30,014 square feet.)

The deed to the Balmer School site includes no statement of use limitations or restriction on Town use of the land. Therefore, it is my opinion that the deed does not impose a limitation that would make the site subject to Article 97 of the Amendments to the Massachusetts Constitution, which includes a prohibition against the sale or change in use of public parkland without special approval by a two-thirds roll call vote of the Legislature.

Article 97 can apply when land acquired without any use restriction is subsequently subjected to a restriction by a document recorded with the Registry of Deeds. See Smith v. City of Westfield, 90 Mass. App. Ct. 80, 82 (2016). It is my understanding that the Town is not aware of any such recorded restriction or similar action for the Balmer School site. My on-line search of Worcester Registry of Deeds records, by street – Crescent Street, did not reveal any subsequent recorded restriction.



Northbridge School Building Committee

August 31, 2017

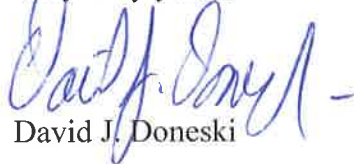
Page 2

You have also informed me that a portion of the Balmer School site contains a recreational field area, known as Vail Field. In that regard, I reviewed certain votes taken at the March 12, 1963 Annual Town Meeting regarding the Town's acceptance of land from Whitin Machine Works – one parcel of approximately 6.22 acres “known as Vail Field . . . to be used for recreational purposes only” (Article 13) and one parcel of approximately 23.25 acres “adjacent to Vail Field . . . to be used as a school site only” (Article 16). Although the stated acreage for these two parcels is different from the parcel sizes reflected in the deed referenced above and the parcel sizes being carried on the Northbridge Assessors' records, it is my understanding that the votes refer to the parcels conveyed by that deed. The Vail Field designation for the smaller parcel appears to pre-exist any transfer to the Town from Whitin Machine Works. In any event, though, creation of a restriction for purposes of Article 97 of the Amendments to the Massachusetts Constitution requires an instrument recorded at the Registry of Deeds. See Mahajan v. Department of Environmental Protection, 464 Mass. 604, 615 – 616 (2013), citing Selectmen of Hanson v. Lindsay, 444 Mass. 502 (2005). No such instrument has been identified. Accordingly, the existence of these votes, with no restrictive instrument recorded at the Registry of Deeds, does not alter the opinion that the Balmer School site is not subject to Article 97.

In accordance with the foregoing, and in response to your further question of August 28, 2017, it is my view that the so-called Vail Field portion of the site may be used for non-recreational purposes and that the other portions of the site may be used for recreational purposes.

Please contact me if you have any further questions on this matter.

Very truly yours,



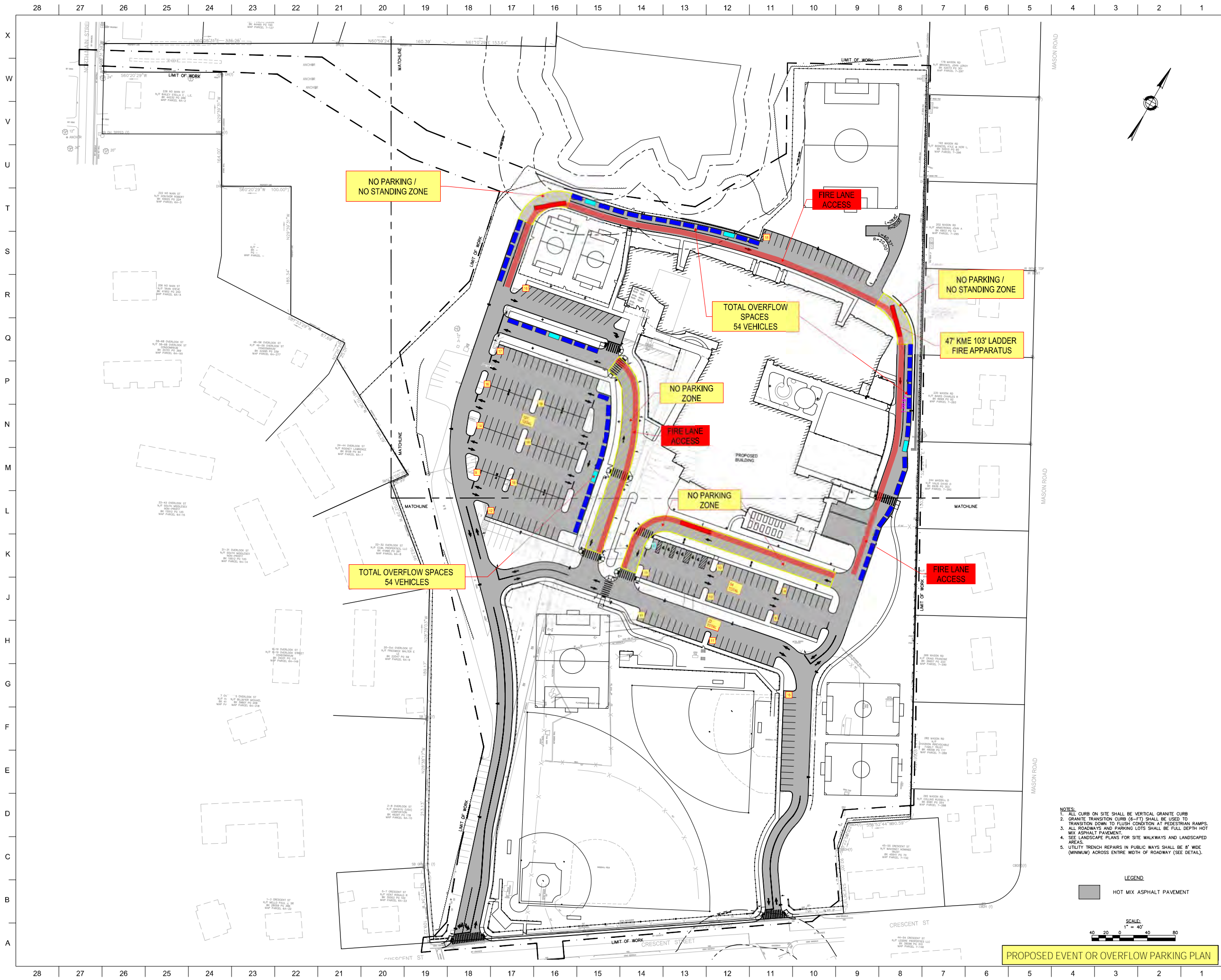
David J. Doneski

DJD/man

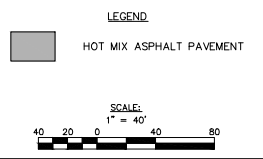
cc: Board of Selectmen







- NOTES:
1. ALL CURB ON SITE SHALL BE VERTICAL GRANITE CURB
  2. GRANITE TRANSITION CURB (6'-FT) SHALL BE USED TO TRANSITION DOWN TO FLUSH CONDITION AT PEDESTRIAN RAMPS.
  3. ALL ROADWAYS AND PARKING LOTS SHALL BE FULL DEPTH HOT MIX ASPHALT PAVEMENT.
  4. SEE LANDSCAPE PLANS FOR SITE WALKWAYS AND LANDSCAPED AREAS.
  5. UTILITY TRENCH REPAIRS IN PUBLIC WAYS SHALL BE 8" WIDE (MINIMUM) ACROSS ENTIRE WIDTH OF ROADWAY (SEE DETAIL).



PROPOSED EVENT OR OVERFLOW PARKING PLAN

**Nitsch Engineering**  
www.nitschang.com  
120 Front Street, Suite 820  
Worcester, MA 01608  
T: (508) 365-1030  
F: (517) 338-6472

- Civil Engineering
- Land Surveying
- Transportation Engineering
- Structural Engineering
- Green Infrastructure
- Planning
- GIS

**ARCHITECT • PROJECT MANAGER**

**DW**

PROFESSIONAL ARCHITECT  
REGISTERED IN THE STATE OF MASSACHUSETTS  
PROJECT NO. 17-759

**W. EDWARD BALMER ELEMENTARY SCHOOL**  
21 CRESCENT STREET  
WHITINSVILLE, MA 01568

300 Pricing Set

REVISION	DATE

DATE: 02/22/2019 SCALE: 1"=40'

SHEET TITLE:  
OVERALL  
ROADWAY  
LAYOUT PLAN

SHEET #:  
**C3.00**

TABLE 1 - STAFF COUNT Verified with School Administration 1/31/19

SPACE	QUAN	ADULTS BASED IN EACH	FTE	STUDENTS IN EACH <sup>1</sup>	TOTAL STUDENTS	Remarks
PK CRS	4	1	4	18	72	
PK-K SPED	1	1	1	12	12	
K CRS	9	1	9	18	162	
GRADE 1-5 CRS	40	1	40	23	920	
1-2 SPED	2	3	6	12	24	
3-5 SPED	2	3	6	12	24	
RESOURCE ROOM	3	1	3			STUDENTS COUNTED ABOVE
STUDENT SERVICES	2	26	52			PROFESSIONALS WORK IN CLASSROOMS ABOVE
ART	2	1	2			STUDENTS COUNTED ABOVE
MUSIC	2	1	2			STUDENTS COUNTED ABOVE
GYMNASIUM	1	2	2			STUDENTS COUNTED ABOVE
LIBRARY	1	2	2			STUDENTS COUNTED ABOVE
MAKER	1	1	1			STUDENTS COUNTED ABOVE
OT/PT	1	2	2			STUDENTS COUNTED ABOVE
ADMIN + NURSE			16			INCL PRINCIPAL OFFICES ON LEVEL 2+3
TITLE 1 OFFICE			1			
KITCHEN			5			
MAINTENANCE STAFF			2			
SUBTOTAL - FTE			156		1214	
VISITORS						
ITINERANT PROFESSIONALS			2			Not full time - in building for no more than 2 hours
VOLUNTEERS			4			Sporadic, usually present for most of the school day
VISITORS			18			3 meetings a day x 6 people, could be concurrent
SUBTOTAL			24			
TOTALS			180		1214	

<sup>1</sup> Reflects maximum enrollment, not actual present enrollment.

TABLE 2 – PARKING AND EVENT ANALYSIS

Proposed Parking Spaces 246 + Overflow Spaces 54 = 300 Total Spaces Onsite Maximum

Table shows the maximum number of cars parked for any given time period/ scenario. Cells highlighted yellow indicate scenario totals above the number of conventional spaces. None of the scenarios exceed the total onsite maximum number of parking spaces, including overflow spaces.

TIME OF DAY	EVENT/ CONDITION	FREQUENCY	PARKING (LONG TERM)	PARKING (S/T VISITOR <2 hours)	QUEUE SPACE	LOADING SPACE (Semi Truck)	REMARKS
SCHOOL DAY							
6:00 AM – 7:45 AM	Supply Deliveries	Daily M-F				2	Various deliveries throughout week, rarely more than one truck at a time.
6:00 AM – 2:00 PM	Kitchen & Maint. staff in building		7				
6:30 AM – 4:00 PM	Teachers and Staff in Building	Daily M-F	156	24			
6:45 AM – 7:55 AM	Early Care Drop-off	Daily M-F		10			Indicates expected max cars at any one time.
7:45 AM – 8:00 AM	Pre-K Parent Park & Drop-Off Arrival	Daily M-F		16			Park & Drop Lot assumes 16 live spaces with 2-3 minute use; additional vehicles can use signed north row of west parking lot
8:00 AM – 8:15 AM	Parent Drop-Off & Arrival	Daily M-F			74		Assume live spaces in a moving line; 74 vehicles at any one time
8:00 AM – 2:30 PM	Parent Volunteers	Daily M-F	4				
8:00 AM – 4:00 PM	Itinerant Staff in Building	Daily M-F		2			
8:00 AM – 4:00 PM	Long Term Visitors	Daily M-F		18			
2:45 PM – 3:15 PM	Dismissal and Parent Pick-up	Daily M-F			74		Some parents may queue earlier than this; 74 vehicles at any one time, additional early cars may park in ~89 vacant site spaces. Dismissals will be staged to even out the peak flow of traffic.
AFTERNOON							
3:00 PM – 5:00 PM	Student Game – Soccer Fields	Spring/Fall M-F	168				(32 players [assume 50% car factor] + 6 adults + 6 additional spectators) X 6 soccer fields = 168 cars
3:00 PM – 5:00 PM	Student Game – Gymnasium	Winter M-F	47				Assumes basketball game: 20 players, 6 adults, 40 parents, 1 custd.
3:00 PM – 5:00 PM	School Meetings – Faculty/Staff	Daily M-TH	127				Assume all-staff meeting (peak count), 1 custodian
3:00 PM – 5:00 PM	School Club Meeting - Staff	2x per week	5				Assume 20 student members, 4 adults, 1 custodian

EVENING							
4:30 PM – 5:30 PM	Night 1 Parent Open House PK-K	1x per semester	260				246 students; assume one car per household; 14 staff
5:30 PM – 6:30 PM	Night 1 Parent Open House Gr 1	1x per semester	216				196 students; assume one car per household; 20 staff
6:30 PM – 7:30 PM	Night 1 Parent Open House Gr 2	1x per semester	216				196 students; assume one car per household; 20 staff
4:30 PM – 5:30 PM	Night 2 Parent Open House Gr 3	1x per semester	216				196 students; assume one car per household; 20 staff
5:30 PM – 6:30 PM	Night 2 Parent Open House Gr 4	1x per semester	216				196 students; assume one car per household; 20 staff
6:30 PM – 7:30 PM	Night 2 Parent Open House Gr 5	1x per semester	216				196 students; assume one car per household; 20 staff
5:30 PM – 9:00 PM	Community Meeting – Small (Media Center or Quiet Lunch L)	Daily T-W-TH	51				50 adult participants; assume one car per each, 1 custodian
5:30 PM – 9:00 PM	Community Meeting – Medium (Café 1 or Café 2)	1x per 2 weeks	206				195 seats, 10 participants; 1 custodian
5:30 PM – 9:00 PM	Community Meeting – Large (Gymnasium)	1x per year	275				508 seats, assume 50% car factor (254), 20 participants; 1 custodian
6:30 PM – 8:30 PM	Perform. Art Event - Concert, Play (Café 1)	2 x per semester	154				190 seats, assume 75% car factor (143), 10 adults; 1 custodian
5:30 PM – 7:00 PM	Community Sport –Early Game (Gymnasium)	Winter/ Daily M-F	122 <sup>2</sup>				148 bleacher seats, assume 75% car factor (111), 10 adults; 1 custodian
7:00 PM – 8:30 PM	Community Sport –Middle Game (Gymnasium)	Winter/ Daily M-F	122 <sup>2</sup>				148 bleacher seats, assume 75% car factor (111), 10 adults; 1 custodian
8:30 PM – 10:00 PM	Community Sport –Late Game (Gymnasium)	Winter/ Daily M-F	122 <sup>2</sup>				148 bleacher seats, assume 75% car factor (111), 10 adults; 1 custodian
WEEKEND USE							
8:00 AM – 3:00 PM	Youth Soccer practices (Fields)	Fall/ Saturdays	264				(32 players [1 parent car per each] + 6 adults + 6 additional spectators) X 6 soccer fields = 264 cars
8:00 AM – 5:00 PM	Youth Softball/ Baseball (Diamonds)	Spring/ Saturdays	68				(18 players [1 parent car per each] + 6 adults + 10 additional spectators) X 2 baseball diamonds = 68 cars
3:00 PM – 6:30 PM	Community Adult Soccer (Fields)	Fall/ Saturdays, Sundays	40				(30 players [1 car per each] + 10 additional spectators) X 1 soccer fields = 40 cars
3:00 PM – 7:00 PM	Community Babe Ruth Baseball (Large Diamond)	Spring/ Saturdays, Sundays	64				(18 players [1 parent car per each] + 6 adults + 40 additional spectators) X 1 baseball diamonds = 64 cars

<sup>2</sup> This number assumes a competition event with full bleachers. Most community sporting events in the gym will be much more sparsely attended.

Existing Parking Spaces - striped, paved, legitimate spaces: 96



March 27, 2019

Mr. James Sheehan, Building Inspector  
Town of Northbridge  
Aldrich School Town Hall Annex  
14 Hill Street  
Whitinsville, MA 01588

RE: W. Edward Balmer Elementary School – Zoning Bylaws Analysis Summary

Dear Jim,

As a follow-up to our letter to you of 2/28/19, we submit the following summary. The Balmer Elementary School project conforms with all applicable aspects of the Northbridge Zoning Bylaws, except for two points:

173-27 OFF-STREET PARKING AND LOADING REQUIREMENTS:

Parking:

Zoning Requirement: Community Facilities - Schools: 1 space per 300 NSF (table in Sec 173-27.C)

Building NSF = 111,568 NSF

Zoning Requires 372 parking spaces

Desired Parking Program per School Building Committee Working Group:

156 Staff + 24 Visitors 180 spaces

Additional Event Parking 89 spaces

Total Parking on Site Plan 246 spaces

Seeking Waiver for 126 spaces

We have submitted an **“Overflow Parking Plan”** that will yield an additional 54 spaces, bringing the total on-site parking capacity to 300 spaces.

Per the request of the Technical Review Committee at our 1/23/19 meeting, we have submitted a verification of the **school's parking needs as well as** a Parking and Event Analysis which shows that there are no likely scenarios that will exceed the total onsite parking capacity. Most scenarios will easily be accommodated with the proposed 246 spaces, and the few, infrequent, high-capacity events will be accommodated using the Overflow plan for 300 spaces.

Loading Areas:

Zoning requires 1 per 7,500 NSF + 1 per 15,000 NSF in excess (table 2 in Sec.173-27.C)

Building NSF = 111,568 NSF

Zoning requires: 8 loading spaces

Project has: 2 loading spaces

Seeking Waiver for 6 loading spaces

The project design has complied with all of the dimensional requirements of the Northbridge Zoning Bylaws, specifically lot frontage, yard setbacks, lot width, and building height with the exception of the parking requirement and loading space requirement. In our professional opinion, we believe the amount of parking provided and the amount of loading spaces provided have met the reasonableness requirements in the context of MGL Chapter 40A, Section 3, and would therefore not be subject to a variance from the Zoning Board of Appeals.

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](http://www.doreandwhittier.com)



Mr. James Sheehan, Building Inspector  
BALMER – Zoning Analysis  
March 27, 2019  
Page 2 of 2

Please contact me if you have any question on the above material, and we look forward to continuing the permitting process for this project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.  
Architects ■ Project Managers

A handwritten signature in black ink, appearing to read "Tom Hengelsberg", written over a light gray rectangular background.

Tom Hengelsberg, AIA  
Project Manager

cc:      File

For Registry of Deeds Use Only



2019 00025349

Bk: 60183 Pg: 351

Page: 1 of 4 03/25/2019 10:25 AM WD



**Massachusetts Department of Environmental Protection**  
**Bureau of Resource Protection - Wetlands**  
**WPA Form 4B – Order of Resource Area**  
**Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

248-0662

MassDEP File Number

1083866

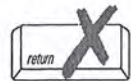
eDEP Transaction Number

Northbridge

City/Town

**A. General Information**

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



**Note:** Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

- From: Northbridge  
 1. Conservation Commission
2. This Issuance is for (check one):  
 a. ☒ Order of Resource Area Delineation  
 b. ☐ Amended Order of Resource Area Delineation
3. Applicant:  
 a. First Name Town of Northbridge Board of Selectmen  
 b. Last Name \_\_\_\_\_  
 c. Organization \_\_\_\_\_  
 d. Mailing Address 7 Main Street  
Northbridge MA 01588  
 e. City/Town f. State g. Zip Code
4. Property Owner (if different from applicant):  
SAME  
 a. First Name \_\_\_\_\_ b. Last Name \_\_\_\_\_  
 c. Organization \_\_\_\_\_  
 d. Mailing Address \_\_\_\_\_  
 e. City/Town \_\_\_\_\_ f. State \_\_\_\_\_ g. Zip Code \_\_\_\_\_
5. Project Location:  
21 Crescent Street Northbridge 01588  
 a. Street Address b. City/Town c. Zip Code  
7 138 and 141  
 d. Assessors Map/Plat Number e. Parcel/Lot Number  
Latitude and Longitude 42d07m52s 71d40m52s  
 (in degrees, minutes, seconds): f. Latitude g. Longitude  
11/30/18 1/16/19 1/16/19  
 6. Dates: a. Date ANRAD filed b. Date Public Hearing Closed c. Date of Issuance

MR: BK4369 PG 342

Yan



**Massachusetts Department of Environmental Protection**  
 Bureau of Resource Protection - Wetlands  
**WPA Form 4B – Order of Resource Area Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

248-0662

MassDEP File Number

1083866

eDEP Transaction Number

Northbridge

City/Town

**A. General Information (cont.)**

7. Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

ANRAD - Balmer Elementary School

11/30/18

a. Title

b. Date

c. Title

d. Date

**B. Order of Delineation**

1. The Conservation Commission has determined the following (check whichever is applicable):

a. ☒ **Accurate:** The boundaries described on the referenced plan(s) above and in the Abbreviated Notice of Resource Area Delineation are accurately drawn for the following resource area(s):

1. ☒ Bordering Vegetated Wetlands

2. ☐ Other resource area(s), specifically:

a.

b. ☐ **Modified:** The boundaries described on the plan(s) referenced above, as modified by the Conservation Commission from the plans contained in the Abbreviated Notice of Resource Area Delineation, are accurately drawn from the following resource area(s):

1. ☐ Bordering Vegetated Wetlands

2. ☐ Other resource area(s), specifically:

a.

c. ☐ **Inaccurate:** The boundaries described on the referenced plan(s) and in the Abbreviated Notice of Resource Area Delineation were found to be inaccurate and cannot be confirmed for the following resource area(s):

1. ☐ Bordering Vegetated Wetlands

2. ☐ Other resource area(s), specifically:





**Massachusetts Department of Environmental Protection**  
Bureau of Resource Protection - Wetlands

## **WPA Form 4B – Order of Resource Area Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

248-0662

MassDEP File Number

1083866  
eDEP Transaction Number

Northbridge

City/Town

### **B. Order of Delineation (cont.)**

3. ☐ The boundaries were determined to be inaccurate because:

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### **C. Findings**

This Order of Resource Area Delineation determines that the boundaries of those resource areas noted above, have been delineated and approved by the Commission and are binding as to all decisions rendered pursuant to the Massachusetts Wetlands Protection Act (M.G.L. c.131, § 40) and its regulations (310 CMR 10.00). This Order does not, however, determine the boundaries of any resource area or Buffer Zone to any resource area not specifically noted above, regardless of whether such boundaries are contained on the plans attached to this Order or to the Abbreviated Notice of Resource Area Delineation.

This Order must be signed by a majority of the Conservation Commission. The Order must be sent by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate DEP Regional Office (see <http://www.mass.gov/eea/agencies/massdep/about/contacts/find-the-massdep-regional-office-for-your-city-or-town.html>).

### **D. Appeals**

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate DEP Regional Office to issue a Superseding Order of Resource Area Delineation. When requested to issue a Superseding Order of Resource Area Delineation, the Department's review is limited to the objections to the resource area delineation(s) stated in the appeal request. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order of Resource Area Delineation will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order or Determination, or providing written information to the Department prior to issuance of a Superseding Order or Determination.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act, (M.G.L. c. 131, § 40) and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal bylaw or ordinance, and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.



**Massachusetts Department of Environmental Protection**  
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

248-0662

MassDEP File Number

1083866

eDEP Transaction Number

Northbridge

City/Town

**E. Signatures**

01/16/2019  
Date of Issuance

4

1. Number of Signers

Please indicate the number of members who will sign this form.

*Cynthia M. Campbell*  
Signature of Conservation Commission Member

Signature of Conservation Commission Member

*John J. Anderson*  
Signature of Conservation Commission Member

Signature of Conservation Commission Member

*Barbara J. Flannery*  
Signature of Conservation Commission Member

Signature of Conservation Commission Member

*Richard C. Cruz*  
Signature of Conservation Commission Member

**This Order is valid for three years from the date of issuance.**

If this Order constitutes an Amended Order of Resource Area Delineation, this Order does not extend the issuance date of the original Final Order, which expires on \_\_\_\_\_ unless extended in writing by the issuing authority.

This Order is issued to the applicant and the property owner (if different) as follows:

2. ☒ By hand delivery on

3. ☐ By certified mail, return receipt requested on

Feb 12, 2019  
a. Date

a. Date





Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

**WPA Form 4B – Order of Resource Area  
Delineation**

MassDEP File Number

eDEP Transaction Number

City/Town

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**Recording Information**

Prior to commencement of work, this Order of Resource Area Delineation must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Resource Area Delineation. The recording information on this page shall be submitted to the Conservation Commission listed below.

Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

NORTHBRIDGE

Conservation Commission

Please be advised that the Order of Resource Area Delineation for the Project at:

21 CRESCENT ST

248-0662

Project Location

MassDEP File Number

Has been recorded at the Registry of Deeds of:

WORCESTER

60183

351

County

Book

Page

For:

TOWN OF NORTHBRIDGE

Property Owner

and has been noted in the chain of title of the affected property in:

4369

342

Book

Page

In accordance with the Order of Resource Area Delineation issued on:

01/16/19

Date

If recorded land, the instrument number identifying this transaction is:

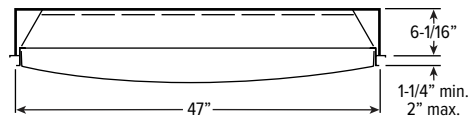
Instrument Number

If registered land, the document number identifying this transaction is:

2019 00025349

Document Number

Signature of Applicant



RND-4 shown with FXA lens

CATALOG #: \_\_\_\_\_

TYPE: \_\_\_\_\_

PROJECT: \_\_\_\_\_

## FEATURES

- Flat, convex, or concave lens profile adds visual interest to a variety of applications
- Provides soft, uniform ambient illumination
- Adjustable ring and lens assembly provides clean appearance
- Inner flange prevents light leaks
- Lift-and-twist lens assembly allows for easy maintenance
- Drywall or grid system installation
- Designed and manufactured in the USA

## SPECIFICATIONS

- HOUSING – 20-gauge C.R.S.
- SHIELDING – Frosted acrylic lens, .125" thick.
- FINISH – 92% minimum average reflective white polyester powder coat bonded to phosphate-free, multi-stage pretreated metal on reflective surfaces. Textured matte white powder after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- ELECTRICAL – High quality mid-power LED boards. L85 at 50,000 hours. 25°C maximum ambient operating temperature.
- MOUNTING – For installation in NEMA Type "G", "SS", or "F" ceiling systems. Earthquake clips are standard. Fixture must be installed prior to ceiling system installation.
- LISTINGS –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - City of Chicago Environmental Air approved when specified with CP option.
- WARRANTY – 5-year limited warranty, see [hew.com/warranty](http://hew.com/warranty).

**NOTE:** Fixture must be installed prior to ceiling system installation.

**IMPORTANT:** Electrostatic sensitive unit. Observe precautions when handling.

## ORDERING EXAMPLE: RND - 4 - L200/835 - FXA - OPTIONS - DIM - UNV

### ORDERING INFO

SERIES	DIAMETER	LUMENS <sup>[1]</sup>	CRI	CCT	LENS <sup>[2]</sup>
RND	2 2'	2'	8 80	27 2700K	FXA Frosted convex acrylic lens
	3 3'	L22 2,200lm		30 3000K	FCA Frosted concave acrylic lens
	4 4'	L45 4,500lm		35 3500K	FFA Frosted flat acrylic lens
		L83 8,300lm		40 4000K	
		3'		50 5000K	
		L67 6,700lm			
	4'	L150 15,000lm			
		L111 11,100lm			
		L200 20,000lm			

### OPTIONS

- EM/10W** 10-watt emergency battery <sup>[4]</sup>
- (L\_\_)** Additional lower lumen packages available. Specify in increments of 100 nominal lumens.  
**Example:** 9,500 nominal lumens = RND-4-L111/835-FXA-(L95)
- CP** Chicago plenum (CCEA)

### DRIVER <sup>[3]</sup>

- DRV** Non-dimming driver
- DIM** Dimming driver
- DIM1** 1% dimming driver

### VOLTAGE

- 120** 120V
- 277** 277V
- UNV** 120-277V

## NOTES

- <sup>1</sup> Nominal lumen output based on 3500K CCT and FXA shielding. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see options.
- <sup>2</sup> See page 3 for FIXTURE DETAILS.
- <sup>3</sup> See page 3 for ADDITIONAL DRIVER OPTIONS.
- <sup>4</sup> 120V - 277V only.





## FIXTURE PERFORMANCE DATA

	LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
2'	L22	2276	28.3	80.5
	L45	4582	56.6	80.9
	L83	8375	106.1	78.9
3'	L67	6702	66.4	101.0
	L150	15197	153.7	98.9
	L111	11234	106.5	105.5
4'	L200	20168	204.7	98.5

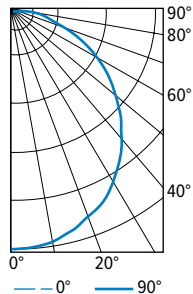
### MULTIPLIER TABLES

COLOR TEMPERATURE	
CCT	CONVERSION FACTOR
2700K	0.97
3000K	0.99
3500K	1.00
4000K	1.03
5000K	1.06

- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
- Wattage shown is average for 120V through 277V input.
- Results based on 3500K, 80 CRI, actual lumens may vary +/-5%
- Use multiplier table to calculate additional options.

## PHOTOMETRY

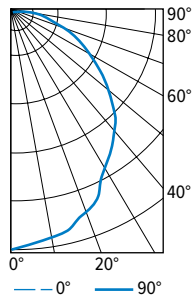
**RND-2-L83/835-FXA** Total Luminaire Output: 8376 lumens; 106.1 Watts | Efficacy: 78.9 lm/W | 80.0 CRI; 3500K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	2979	2979	2979	
5	2986	2971	2964	283
15	2873	2866	2862	809
25	2655	2651	2647	1219
35	2342	2327	2335	1454
45	1943	1928	1936	1487
55	1465	1491	1461	1325
65	1009	1021	998	1000
75	569	565	542	587
85	192	188	188	214
90	83	68	60	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2310	28
	0 - 40	3764	45
	0 - 60	6576	79
	0 - 90	8376	100
	0 - 180	8376	100

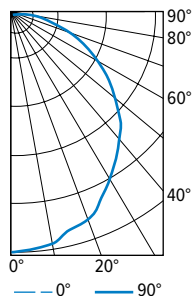
**RND-3-L150/835-FXA** Total Luminaire Output: 15196 lumens; 153.7 Watts | Efficacy: 98.9 lm/W | 80.0 CRI; 3500K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	5684	5684	5684	
5	5607	5607	5607	533
15	5347	5358	5368	1508
25	4870	4882	4882	2220
35	4062	4078	4069	2548
45	3467	3472	3467	2657
55	2668	2979	2663	2384
65	1829	1829	1833	1813
75	1006	1006	1006	1078
85	362	358	362	413
90	151	144	151	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	4261	28
	0 - 40	6809	45
	0 - 60	11851	78
	0 - 90	15155	100
	0 - 180	15196	100

**RND-4-L200/835-FXA** Total Luminaire Output: 20167 lumens; 204.7 Watts | Efficacy: 98.5 lm/W | 80.0 CRI; 3500K CCT



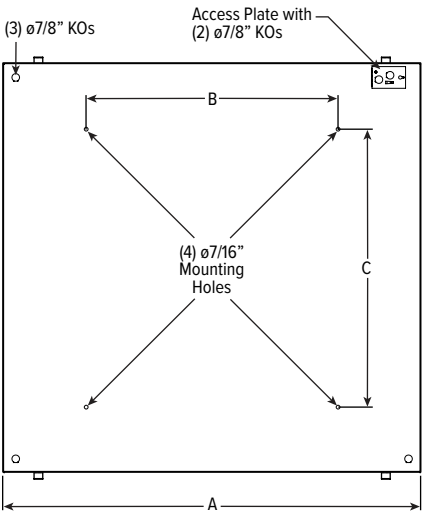
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	7308	7308	7308	
5	7148	7139	7139	680
15	6780	6784	6780	1925
25	6287	6276	6276	2889
35	5455	5455	5455	3418
45	4651	4642	4651	3557
55	3582	3582	3570	3178
65	2466	2460	2457	2431
75	1337	1329	1337	1445
85	495	495	501	567
90	211	211	211	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	5494	27
	0 - 40	8912	44
	0 - 60	15647	78
	0 - 90	20089	100
	0 - 180	20167	100



FIXTURE DETAILS

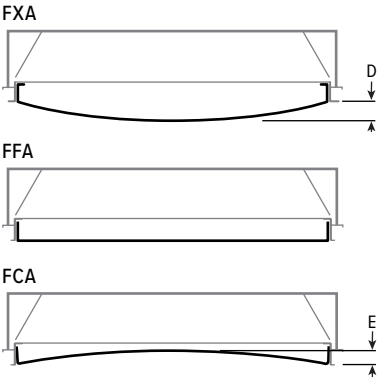
BACK VIEW



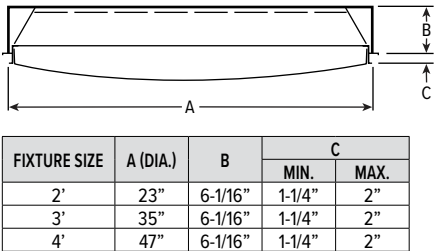
SERIES	A	B	C	D	E	CUTOUT SIZES
RND-2	24"	14"	10"	1-9/16"	1-1/2"	ø22-1/4" ±1/4"
RND-3	36"	20"	24"	2-1/16"	1-1/2"	ø34-1/4" ±1/4"
RND-4	48"	29"	32"	2-9/16"	1-1/2"	ø46-1/4" ±1/4"

NOTE: Fixture must be installed prior to ceiling system installation.

LENS PROFILES



CROSS SECTIONS

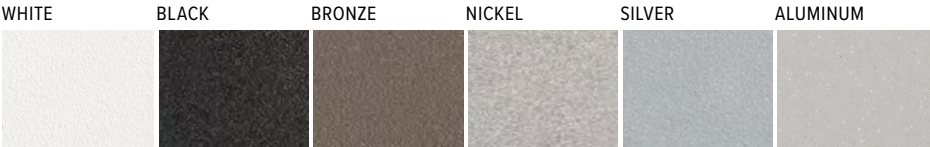


ADDITIONAL DRIVER OPTIONS

Note: Lumen restrictions apply, consult factory.

CATALOG NUMBER	DESCRIPTION
DRV	Driver prewired for non-dimming applications
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (Must specify 120V or 277V only)
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LTE LINE	Lutron Hi-lume® A-Series 1% dimming driver for forward phase line voltage controls (120V only)
LDE1	Lutron EcoSystem® H-Series 1% dimming driver for EcoSystem® controls
LDE5	Lutron EcoSystem® 5-Series 5% dimming driver for EcoSystem® controls
ELDO SOLOB	EldoLED Solodrive, 0.1% dimming driver for 0-10V controls
ELDO SOLOB DALI	EldoLED Solodrive, 0.1% dimming driver for DALI controls
ELDO ECO1	EldoLED Ecodrive, 1% dimming driver for 0-10V controls
ELDO ECO1 DALI	EldoLED Ecodrive, 1% dimming driver for DALI controls

FINISH OPTIONS



MEMORANDUM



DATE: March 27, 2019  
TO: Northbridge Balmer School Building Committee  
FROM: Thomas Hengelsberg, AIA  
Project Manager  
COPY: SMMA (OPM)  
File  
PROJECT: W. Edward Balmer Elementary School  
PROJECT NO: 17-0759  
SUBJECT: Proprietary Specifications for Vote

---

Dear Balmer School Building Committee,

Mass. General Laws, Chapter 30 Section 39M(b), require that materials specifications in construction contracts name a minimum of three manufacturers for each material or product specified in order to provide for competitive bidding. Specifications that restrict competition to less than three manufacturers may only be used for **“sound reasons in the public interest”** after a reasonable investigation. A proprietary specification must be approved by an elected body, which in this case will be the Northbridge School Committee.

The reasoning for each proprietary specification is outlined on the following pages in a format that provides for the official recording of the vote. Each of these proprietary designations should be approved in separate votes.

We would ask that the School Building Committee review these items, and vote to recommend that they be submitted to the School Committee for a vote to approve them.

Sincerely,

DORE & WHITTIER ARCHITECTS

A handwritten signature in black ink, appearing to read 'T. Hengelsberg', is written over a light gray rectangular background.

Thomas Hengelsberg, AIA, NCARB, LEED AP, MCPPO  
Project Manager

ARCHITECTS  
PROJECT MANAGERS

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978.499.2999 ph  
978.499.2944 fax

212 Battery Street  
Burlington, VT 05401  
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[www.doreandwhittier.com](http://www.doreandwhittier.com)

W. EDWARD BALMER ELEMENTARY SCHOOL

DORE & WHITTIER ARCHITECTS

DESIGN DEVELOPMENT SPECIFICATIONS

ANTICIPATED PROPRIETARY SPECIFICATION ITEMS

3/27/2019

SECTION	ITEM	LOCATION IN PROJECT	REASON FOR USE
05 12 00	FERO Anchor Systems – “melt-away” clips that join fire wall to structural steel frame	At fire wall, both sides	Melt-away clips for supporting fire wall, no other manufacturers of this critical element for significantly less expensive fire wall construction.
08 35 13.23	Folding Fire Separation Doors: “ <b>Won-Door</b> ” Corporation <b>accordion horizontal</b> -acting automatic fire door. <b>Possible VE/ AHJ/ SBC veto item</b>	Three (3) fire wall passage doors, one each level of the building.	This single manufacturer supplies a large-opening fire door that slides into place when the alarm is sounded, but also has a push-to-open function to allow use as a horizontal exit. It is used to keep the corridor free and clear of intermediate posts for its entire width, which are often obstacles for small children in the corridor. There are no equals on the market.
08 40 13	Protective Framed Glazing Assemblies - Insulated Batter-Resistant Glazing: School-Guard “SG-4” OR: 3M S&S Window Films <b>2 options</b>	Main entry vestibule, main office windows, and Pre-K Vestibule glazing	Protective security glazing was voted by the SBC to be included at entrances and Office glazing in SD phase. School-Guard appears to be the highest effectiveness security glazing for a reasonable cost. School-Guard is locally based in Adams, MA and manufactured in Pittsfield, MA.
08 63 00	Metal-Framed Skylights – Translucent Panel Skylight: Kalwall or Major Industries <b>2 options</b> Structures Unlimited is third mfr. – see note at right	Two skylights, over Stair 5 and Light well adjacent to Media Center	This type of fiberglass-faced, translucent panel gives glare-free natural light, coupled with high R-Value glazing material. There are only two panel suppliers in the market. There are three skylight unit manufacturers, but two use Kalwall panels, and they will not bid against each other.
08 71 00	Door Hardware - Lockset Cores and Keys: <b>Schlage “Primus”</b> .	All building locksets and locking door hardware	District Standard. (Hardware locksets to be bid from three or more listed, compatible, equivalent products.)
08 88 00	Translucent Glazing: “ <b>Solera</b> ” insulated translucent glazing units, OR “ <b>Okalux Plus</b> ” insulated translucent glazing units <b>2 options</b>	Gymnasium clerestory windows	These are only options for a glazed solution that looks like glass (aesthetic requirements), meets the U-value requirement, and is translucent (VLT requirement).
09 84 30	Sound-Absorbing Wall Units: Direct-attach wall panels: Knauf Ecoso and Akusto Texona	Cafeteria, OT/PT rooms, Music Rooms, Library-Media Center, ELAS	For this type of acoustical wall panel, these fabric products are only ones that meets the LEED v4 criteria. There are others out there, but they do not have the LEED documentation in place.

09 84 30	Sound-Absorbing Wall Units for High Abuse Locations: <b>Armstrong "Tectum" direct attach panels</b>	Gymnasium walls	For this type of acoustical panel, Tectum is the only one that meets the LEED v4 criteria. There are others out there, but they do not have the LEED documentation in place.	
10 44 00	Exterior Fire Protection Specialties: <b>"Knox Box" Series 3200</b> rapid entry system	Front and rear building entrances. Two locations.	Required by Northbridge Fire Department.	
23 00 10	<b>BMS/Mechanical Controls</b> <b>Query in to Richard Maglione.</b>	Building HVAC Controls	<b>District/Town Standard or Service Contract in place?</b>	
27 20 00	Data Communication System, Network Switches: Aruba 5400 series	At MDF Room.	District Standard.	
27 20 00	Data Communication System, Wireless Access Points: Aerohive, AP250 and/or AP550.	Throughout the school.	District Standard.	
28 10 00	Integrated Access Control/ Intrusion Detection/ Video Surveillance Platform/System: <b>TBD</b>	Throughout the school.	Northbridge is currently prioritizing and developing a district-wide security upgrade project. Decisions made on this current project will be setting a new District Standard for future projects, including the Balmer ES project. NPS will competitively procure the vendor, but keep the system proprietary as a new District Standard. <b>Provisional, final decision TBD.</b>	

END OF LIST

MEMORANDUM



DATE: March 26, 2019

DRAFT

TO: Northbridge School Committee

COPY: W.E. Balmer ES  
School Building  
Committee  
  
SMMA (OPM)  
  
File

FROM: Thomas Hengelsberg, AIA  
Project Manager

PROJECT: W. Edward Balmer Elementary School

PROJECT NO: 17-0759

SUBJECT: Proprietary Specifications for Vote

---

Dear Northbridge School Committee,

Mass. General Laws, Chapter 30 Section 39M(b), require that materials specifications in construction contracts name a minimum of three manufacturers for each material or product specified in order to provide for competitive bidding. Specifications that restrict competition to less than three manufacturers may only be used for “**sound** reasons in the public **interest**” after a reasonable investigation. A proprietary specification must be approved by an elected body, which in this case will be the Northbridge School Committee.

The reasoning for each proprietary specification is outlined on the following pages in a format that provides for the official recording of the vote. Each of these proprietary designations should be approved in separate votes.

Sincerely,

DORE & WHITTIER ARCHITECTS

Thomas Hengelsberg, AIA, NCARB, LEED AP, MCPPO  
Project Manager

ARCHITECTS  
PROJECT MANAGERS

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BALMER ELEMENTARY SCHOOL  
RECORD OF PROPRIETARY PRODUCTS DESIGNATION AND VOTE  
March 26, 2019

Section 05 12 00 - Structural Steel Framing

Product: Engineered Masonry Break-Away Fire Release Connector

Manufacturer: FERRO Corporation

- A fire wall is designed into the building to subdivide it into smaller fire compartments, per the building code. Given the building configuration, this is the lowest cost method to achieve the required fire resistance. The lowest cost construction method for the fire wall is a free-standing masonry wall, which is stabilized by bracing it to the structure on each side of the fire wall in a way that will allow the collapse of either structure without damaging the wall or causing it to collapse. The project proposes using a **"break-away"** connector designed to melt in the heat of the fire for this purpose.
- The FERRO Company is the only known source for connection clips that have been designed, engineered, and tested specifically for this purpose. FERRO clips are custom engineered to meet the structural loading and fire performance requirements for every project, which is unique. While other components such as aluminum could be used, which would melt in a fire condition before the collapse of the structure, aluminum is generally not considered a load-bearing product. Any non-tested products used would have to be custom-engineered and tested to provide the same engineering assurance as the FERRO product. Custom testing would present significant cost and potentially significant and unknown time delays to the project.
- Using the FERRO Masonry Break-Away Fire Release Connectors (although proprietary) would facilitate the least expensive fire wall construction technique without representing significant added cost for the material, as the quantity of clips that would be required is relatively minor in comparison to the other material costs involved.

The Awarding Authority for the project hereby finds and determines after discussions with Dore & Whittier Architects Inc. the project Architect as presented above, and after reasonable investigation of other feasible alternatives, as reviewed by the **Owner's** procurement office, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being FERRO Break-Away Fire-Release Connector be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☐ APPROVED AS PROPRIETARY ☐ NOT APPROVED

DATE: \_\_\_\_\_

SIGNATURE / RECORDED BY: \_\_\_\_\_

NAME / TITLE: \_\_\_\_\_



Section 08 35 13.23 - Folding Fire Separation Doors

Product: Accordion Horizontal-Acting Automatic Fire Door

Manufacturer: Won-Door Corporation "FireGuard" Door

- At the fire walls on each level of the building, a 2-hour fire-rated opening protective (door) is required to allow passage through the wall from one side of the building to the other. The design intent as dictated by the SBC Working Group is that this fire door be as minimal as possible to allow the maximum clear width in the corridor. This improves circulation efficiency during heavily-used times of the day, and most importantly, eliminates posts, columns, or other projections that can be injurious to small children who could walk into them. The clear width is also important aesthetically to not divide the building visually and spatially.
- If the building goes into fire alarm mode, the door closes automatically, and can be re-opened using a clearly identified push-to-exit button located on each side of the door jamb. The door is powered on the emergency electrical system (generator backup) with a self-contained battery backup in the event of power failure and generator failure.
- The product specified is the only type of opening protective that conforms to all of these design intents: 2-hour fire rated, full-width clear opening, fully automatic function.

The Awarding Authority for the Error! Reference source not found.project, hereby finds and determines after discussions with Dore & Whittier Architects Inc., the project Architect as presented above, and after reasonable investigation of **other feasible alternatives, as reviewed by the Owner's procurement** office, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the accordion horizontal-acting automatic fire door manufactured by Won-Door Corporation be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☐ APPROVED AS PROPRIETARY ☐ NOT APPROVED

DATE: \_\_\_\_\_

SIGNATURE / RECORDED BY: \_\_\_\_\_

NAME / TITLE: \_\_\_\_\_

Section 08 40 13 - Protective Framed Glazing Assemblies

Product: Insulated Batter-Resistant Glazing

Manufacturers: School-Guard **"SG-4"**, or, 3M **"S&S Window Films"** (**Two Options**)

- Protective security glazing was voted by the SBC during the Schematic Design phase to be included at the Main Entrance door vestibule glazing, Pre-K Entrance door vestibule glazing, and Main Office window glazing.
- The specified products are designed to provide a high degree of batter-resistance that will slow down or deter an intruder to the school for a reasonable cost. The glazing is manufactured using a high-strength proprietary clear interlayer that holds the glass together once broken. The products are designed to slow down forced entry using blunt objects of firearms by as much as five minutes or more, buying valuable time for law enforcement to be alerted and arrive on scene.
- Board members should note, these products are NOT ballistic (bullet-resistant) glazing, which would come at a substantially higher cost.
- These glazing products are available in dual thermal pane and interior single pane configurations, and can be installed into all of the specified window, door, and storefront glazing systems on the project.
- School-Guard is locally based in Adams, MA and manufactured in Pittsfield, MA. It should be noted that the MSBA looks favorably upon locally manufactured products used in its school projects.
- These two products are the only ones available on the market that can achieve the design and security goals, and meet the project budget.
- Two competitors are available for this product, not three as is preferred by MGL Ch 30. As such, this material must be designated as a proprietary product to the listed manufacturers.

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects Inc., the project Architect as presented above, and after reasonable investigation of other feasible alternatives, as **reviewed by the Owner's procurement** office, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the insulated batter-resistant glazing manufactured by School-Guard, Inc. or 3M Corporation be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☐ APPROVED AS PROPRIETARY ☐ NOT APPROVED

DATE: \_\_\_\_\_

SIGNATURE / RECORDED BY: \_\_\_\_\_

NAME / TITLE: \_\_\_\_\_

BALMER ELEMENTARY SCHOOL  
RECORD OF PROPRIETARY PRODUCTS DESIGNATION AND VOTE  
March 26, 2019

Section 08 63 00 - Metal-Framed Skylights

Product: Translucent Panel Skylights

Manufacturers: Kalwall or Major Industries (Two options)

- The product is used to provide tempered, glare-free daylight to interior spaces with thermal performance that is superior to other forms of skylights.
- The size of the skylight assemblies in the project requires a metal-framed system, consistent with the products specified.
- The products specified are the only type that can meet the energy performance criteria within the budget.
- There are three manufacturers who can meet the product requirements of the specification: Kalwall, Structures Unlimited, and Major Industries, however Kalwall and Structures Unlimited are related (Structures Unlimited utilizes Kalwall panel products) and will not bid on the same projects.
- Structures Unlimited deals mainly in very large expanses of translucent roof panels, so smaller skylights of the size indicated for this project are more suitable to Kalwall products.
- Two competitors are available for this product, not three as is preferred by MGL Ch 30. As such, this material must be designated as a proprietary product to the listed manufacturers.

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects Inc. the project Architect as presented above, and after reasonable investigation of other feasible alternatives, as **reviewed by the Owner's procurement office, that it is in the best interests of the Owner** and the public at large to have certain portions of the work, being the translucent panel skylights manufactured by Kalwall Corporation and Major Industries be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☒ APPROVED AS PROPRIETARY ☐ NOT APPROVED

DATE: \_\_\_\_\_

SIGNATURE / RECORDED BY: \_\_\_\_\_

NAME / TITLE: \_\_\_\_\_

BALMER ELEMENTARY SCHOOL  
RECORD OF PROPRIETARY PRODUCTS DESIGNATION AND VOTE  
March 26, 2019

Section 08 71 00 – Finish Hardware

Product: Lockset Cores and Keys - **“Primus” Cylinders** and Patented Keying System

Manufacturer: Schlage, an Allegion PLC brand.

- It is the **Owner’s** desire to have the project locks match other school district buildings, which use a Schlage **“Primus”** Interchangeable Core cylinder.
- Cores from different manufacturers are not guaranteed to be interchangeable; i.e. Schlage FSIC cores do not fit in Sargent FSIC locksets.
- Use of products of the same manufacturer will provide for seamless interchangeability and master-keying with the **owner’s** proprietary key system already in use.

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects Inc., the project Architect as presented above, and after reasonable investigation of other feasible alternatives, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the Schlage **“Primus”** cylinders and patented keying system be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☐ APPROVED AS PROPRIETARY ☐ NOT APPROVED

DATE: \_\_\_\_\_

SIGNATURE / RECORDED BY: \_\_\_\_\_

NAME / TITLE: \_\_\_\_\_

BALMER ELEMENTARY SCHOOL  
RECORD OF PROPRIETARY PRODUCTS DESIGNATION AND VOTE  
March 26, 2019

Section 08 80 00 – Glazing - insulated translucent glazing units

Product: **“Solera”, OR, “Okalux Plus”**

Manufacturers: Advanced Glazing Inc. or Okalux Inc. (Two options)

- Exterior glazing on the project **at the high, or “clerestory” level of the Gymnasium** incorporate insulated translucent glazing, **which is designed to admit generous amounts of natural day light without glare or “hot spots”** associated with typical clear glazing, while providing a high degree of thermal resistance.
- Glare resistance is a key design requirement in an athletic space where hot spots can temporarily blind players, create unfair advantages, and otherwise disturb play and sporting events.
- Thermal resistance is a key design requirement to minimize energy use in the building.
- These products are the only two on the market that can achieve both of these design requirements while being able to fit into the typical aluminum curtain wall or storefront systems specified on the project.
- Two competitors are available for this product, not three as is preferred by MGL Ch 30. As such, this material must be designated as a proprietary product to the listed manufacturers.

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects Inc., the project Architect as presented above, and after reasonable investigation of other feasible alternatives, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the insulated translucent glazing units, “Solera”, or, “Okalux Plus” be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☐ APPROVED AS PROPRIETARY ☐ NOT APPROVED

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BALMER ELEMENTARY SCHOOL  
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Section 09 84 00 – Sound Absorbing Acoustical Wall panels

Product: “Ecosse” or “Texona”

Manufacturers: Knauf Inc., or, Akusto Inc.

- These panels are used for acoustical wall absorption in high volume spaces or in spaces that need to reduce the reverberation of noise.
- Only two manufacturers with these products on the market meet ASTM E84 and LEED indoor air quality requirements for the wall panel system. They are Knauf Ecosse and Akusto Texona acoustic wall panels.
- The design team continues to investigate this product and is working with our LEED consultant regarding meeting the acoustical and indoor air quality LEED credits.

*If these products are not designated as proprietary, and acoustical wall panels are required, there could be a negative impact on LEED credits, or a “field assembled” system of acoustic panels would be needed, which would likely cost the same or more than factory-made panels, may not be as durable, and may exhibit quality control issues due to the field assembly. Alternatively, other acoustic options or solutions would have to be verified with the acoustical consultant.*

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects Inc., the project Architect as presented above, and after reasonable investigation of other feasible alternatives, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the Knauf Ecosse and Akusto Texona be included in the specifications for such project as a proprietary specification and not provide for “or equal” substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☐ APPROVED AS PROPRIETARY ☐ NOT APPROVED

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BALMER ELEMENTARY SCHOOL  
RECORD OF PROPRIETARY PRODUCTS DESIGNATION AND VOTE  
March 26, 2019

Section 09 84 00 – Sound Absorbing Acoustical Wall panels for High-Abuse areas

Product: Tectum wall panels

Manufacturers: Armstrong Inc.

- These panels are used for acoustical wall absorption specifically in the Gymnasium, a high volume that need to reduce the reverberation of noise, and is a high abuse environment requiring a stronger panel system.
- Only one manufacturer with this product on the market meet ASTM E84 and LEED indoor air quality requirements for the wall panel system. **It is Armstrong "Tectum"** acoustic wall panels.
- The design team continues to investigate this product and is working with our LEED consultant regarding meeting the acoustical and indoor air quality LEED credits.

*If these products are not designated as proprietary, and acoustical wall panels are required, there could be a negative impact on LEED credits, or a "field assembled" system of acoustic panels would be needed, which would likely cost the same or more than factory-made panels, may not be as durable, and may exhibit quality control issues due to the field assembly. Alternatively, other acoustic options or solutions would have to be verified with the acoustical consultant.*

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects Inc., the project Architect as presented above, and after reasonable investigation of other feasible alternatives, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the Tectum Acoustic Wall Panels by Armstrong Inc. be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☐ APPROVED AS PROPRIETARY ☐ NOT APPROVED

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BALMER ELEMENTARY SCHOOL  
RECORD OF PROPRIETARY PRODUCTS DESIGNATION AND VOTE  
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Section 10 44 00 – Fire Protection Specialties

Product: Exterior Key Lock Box - **“Rapid Access System”** - KnoxBox Series 3200”

Manufacturer: The Knox Company

- Per the policies of the Northbridge Fire Department, a specific exterior key box is required for the project to guarantee compatibility with fire department equipment and training, and to assure emergency access to the building.
- The proprietary product shall be KnoxBox Series 3200, as manufactured by The Knox Company.

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects Inc., the project Architect as presented above, and after reasonable investigation of other feasible alternatives, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the **“Rapid Access System”** KnoxBox Series 3200 by The Knox Company be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

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BALMER ELEMENTARY SCHOOL  
RECORD OF PROPRIETARY PRODUCTS DESIGNATION AND VOTE  
March 26, 2019

Section 23 00 10 – HVAC

Product: Building Energy Management System

Manufacturer: XXXXX

- It is in the best interest of the Awarding Authority to utilize the same energy management system currently used at other facilities and buildings in the District, in order to have a system accessible to and familiar to the Maintenance staff.
- Systems of one manufacturer will provide for simplified maintenance and management of the system, resulting in reduced costs to the Owner.
- By matching the systems already in place, compatibility of the new building to the existing systems in use by the Owner will assure seamless transfer of data.
- In an effort to modernize, bring standardization, preferred service pricing and access, and higher performance to all of its school buildings, the Town has recently decided to procure a uniform system for Facilities Energy Management System (building controls).
- The Town has conducted a reasonable investigation of the Building Controls manufacturers and providers available in the area. Criteria for selection were: technical superiority, ease of use/interface of the control system, compatibility with equipment, service availability and access, and competitive price.
- The building controls system contract was procured through a duly executed, competitive RFP and Public Bid process.

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects nc. the project Architect as presented above, and after reasonable investigation of other feasible alternatives, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the building energy management system manufactured by \_\_\_\_\_ be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☐ APPROVED AS PROPRIETARY ☐ NOT APPROVED

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BALMER ELEMENTARY SCHOOL  
RECORD OF PROPRIETARY PRODUCTS DESIGNATION AND VOTE  
March 26, 2019

Section 27 20 00 - Data Communication System, Network Switches

Product: 5400 Series

Manufacturer: Aruba

- Northbridge Public Schools has developed a district-wide standard for IT Network Switches, to which the Balmer project will be subject.
- It is in the best interest of the Awarding Authority to utilize the same network switches currently used at other facilities and buildings in the District, in order to have a system accessible to and familiar to the IT staff.
- Systems of one manufacturer will provide for simplified maintenance and management of the system, resulting in reduced costs to the Owner.
- By matching the systems already in place, compatibility of the new building to the existing systems in use by the Owner will assure seamless transfer of data.
- The Aruba 5400 Series has been designated by the Northbridge PS Director of Technology as the district standard.
- It may be possible to competitively procure the vendor who will supply this technology, and/or procure the item off the State Bid List.

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects nc., the project Architect as presented above, and after reasonable investigation of other feasible alternatives, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the 5400 Series Network Switches manufactured by Aruba be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

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BALMER ELEMENTARY SCHOOL  
RECORD OF PROPRIETARY PRODUCTS DESIGNATION AND VOTE  
March 26, 2019

Section 27 20 00 - Data Communication System, Wireless Access Points

Product: AP250 and/or AP550

Manufacturer: Aerohive

- Northbridge Public Schools has developed a district-wide standard for IT Wireless Access Points, to which the Balmer project will be subject.
- It is in the best interest of the Awarding Authority to utilize the same wireless access points currently used at other facilities and buildings in the District, in order to have a system accessible to and familiar to the IT staff.
- Systems of one manufacturer will provide for simplified maintenance and management of the system, resulting in reduced costs to the Owner.
- By matching the systems already in place, compatibility of the new building to the existing systems in use by the Owner will assure seamless transfer of data.
- The Aerohive AP250 and/or AP550 has been designated by the Northbridge PS Director of Technology as the district standard.
- It may be possible to competitively procure the vendor who will supply this technology, and/or procure the item off the State Bid List.

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects nc., the project Architect as presented above, and after reasonable investigation of other feasible alternatives, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the Wireless Access Points AP250 and/or AP550 manufactured by Aerohive be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☒ APPROVED AS PROPRIETARY ☐ NOT APPROVED

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BALMER ELEMENTARY SCHOOL  
RECORD OF PROPRIETARY PRODUCTS DESIGNATION AND VOTE  
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Section 28 10 00 - Integrated Electronic Security Systems

Product: Access Control and/or Building Security Systems

Manufacturer: **TBD**

- Northbridge Public Schools is currently prioritizing and developing a district-wide security upgrade project. It is likely that the decisions made on this current project will be setting a new District Standard for future projects, including the Balmer ES project.
- It is in the best interest of the Awarding Authority to utilize the same access control and building security system currently used at other facilities and buildings in the District, in order to have a system accessible to and familiar to the Maintenance staff.
- Systems of one manufacturer will provide for simplified maintenance and management of the system, resulting in reduced costs to the Owner.
- By matching the systems already in place, compatibility of the new building to the existing systems in use by the Owner will assure seamless transfer of data.
- The **TBD** platform has been recommended by the Designer to the Northbridge SD Director of Technology, who has been advised to competitively procure the vendor, but keep the system proprietary as a new District Standard.
- The platform to be specified is manufactured by **TBD**. The particular system specification is TBD at this time.

The Awarding Authority for the project, hereby finds and determines after discussions with Dore & Whittier Architects Inc., the project Architect as presented above, and after reasonable investigation of other feasible alternatives, that it is in the best interests of the Owner and the public at large to have certain portions of the work, being the Integrated Access Control System platform manufactured by **TBD** be included in the specifications for such project as a proprietary specification and not provide for "or equal" substitutions.

VOTED BY THE NORTHBRIDGE SCHOOL COMMITTEE

VOTE: ☐ APPROVED AS PROPRIETARY ☐ NOT APPROVED

DATE: \_\_\_\_\_

SIGNATURE / RECORDED BY: \_\_\_\_\_

NAME / TITLE: \_\_\_\_\_



## Owner Design Review Comments

PROJECT MANAGEMENT

RESPONSE TO COMMENTS  
MARCH 28, 2019

FONTAINE BROS INC RESPONSE

DESIGN TEAM RESPONSE

**Project Name:** W. Edward Balmer Elementary School, Whitinsville, Massachusetts  
**Project Number:** 17020  
**Document Reviewer:** Peter L'Hommedieu, Jeff Lundquist

**Project Phase:** Design Development  
**Reviewed Date:** February 21, 2019  
**Discipline:** All Disciplines

### DESIGN REVIEW NOTES

Item	SBC Member	DWG/Spec	Design Development		60% Construction Documents		90% Construction Documents	
			Comment	Designer Response	Comment	Designer Response	Comment	Designer Response
1.	Peter L'Hommedieu		What is the plan for method of ledge removal, more specifically what method is being used knowing the close proximity of private property houses and the existing school?	Several methods for ledge removal are still being considered and will be employed as appropriate/necessary including blasting and mechanical removal. Further geotechnical investigations are being performed this week and will be observed by CM, which will allow us to better understand character of ledge.				
2.	Peter L'Hommedieu	A1.70 A1.71	Per drawing A1.70 & A1.71, Common boys and girls bathrooms have shared sink areas, it appears it would be very easy for boys and/or girls to accidentally go into the wrong side. How is this going to be managed when there are no actual doors or ability to police this? What is the benefit of shared sink areas? This layout concerns me especially in areas where adults could be using these same bathrooms.	This toilet room layout was developed in collaboration with the Working Group. D&W will revisit with Working Group based on these comments and report out recommendations.				
3.	Peter L'Hommedieu	C3.02	Per drawing C3.02, what is the need for the roadway at the northeast corner of the site going to the north field? Is this required for emergency vehicles or a convenience? If not required can it be deleted or simplified?	This is an ambulance access/turnaround, as well as the accessible route to the field, designed by LA and D&W, accepted by Fire and Police Depts.				

Item	SBC Member	DWG/Spec	Design Development		60% Construction Documents		90% Construction Documents	
			Comment	Designer Response	Comment	Designer Response	Comment	Designer Response
4.	Peter L'Hommedieu	C3.02 E0.03	Per drawing C3.02 & E0.03, why are so many islands needed in the West parking lot? It appears they are not all needed for lighting? If some are for esthetic reasons and not needed can they be deleted to save money, add parking spots, and make snow removal more efficient?	1. Islands are required by Zoning such that the max run of parking spaces/stalls is no longer than 100'; 2. Screening of parking from neighbors is required by Zoning - since neighbors on this side are above the parking, tree canopy provides screening; 3. Trees provide some shade in parking lot, important for reducing heat island effect, and great aesthetic improvement. 4. Islands organize traffic and greatly reduce driving speeds and unpredictable driving behavior in lots, making them safer. 5. Islands, lighting, and tree locations are currently being coordinated to avoid light poles in isolation.				
5.	Peter L'Hommedieu	C6.07	Per drawing C6.07, in lieu of the modular block retaining wall on the east side of the site, would it be more cost effective to do a cast in place concrete retaining wall?	The Modular block gravity retaining wall was determined to be the best option for work close to the property line. Fontaine is currently evaluating means & methods for how to achieve this in the most cost-effective manner. A cast-in-place concrete wall is being priced for this exercise, but presents numerous challenges constructed so close to the property line.				PRICE FOR 4/2/19
6.	Peter L'Hommedieu	L4.20	Per drawing L4.20, detail 11, footings seem excessive for simple concrete stairs.	Stairs are built on foundations as shown in the drawings below frost line (4'-0"), so they will not heave due to frost action. Details as shown are necessary and consistent with design intent. A stair built without foundations would heave and/or crack.				
7.	Peter L'Hommedieu	L4.30	Per drawing L4.30, can backstops and/or fencing be change to galvanized system and not vinyl clad system to save cost?	Vinyl-clad was selected for two reasons: lesser visual impact (better aesthetics); and softer on the hands (there are often burrs in galvanizing). Galv is certainly an option. FBI advise on cost difference. Note that black vinyl was used on High School.				PRICE FOR 4/2/19
8.	Peter L'Hommedieu	A4.01	Per drawing A4.01, can the exterior façade finishes on the North and/or East sides be simplified or changed to a less expensive material such as split face block or jumbo bricks to reduce costs? Or expand the use of current masonry systems in these areas.	Providing Utility sized brick in lieu of Standard Modular brick is being priced; Some other minor facade VE measures currently being priced.				PRICE FOR 4/2/19
9.	Peter L'Hommedieu	A9.60	Per drawing A9.60, can the budget support the density of fixed storage shown?	Project is on-budget with casework (fixed storage) as shown, which was at the request of User Groups in their meetings.				
10.	Peter L'Hommedieu	K1.00	Per drawing K1.00, is any equipment being salvaged from the current schools?	The age and condition of existing equipment is such that none will be salvaged for use in the new Kitchen; however, equipment may be further evaluated for redistribution to other kitchens in the District or for resale.				
11.	Peter L'Hommedieu	K1.13	Per drawing K1.13, per kitchen (storage room, cooler, and freezer), what duration of food stores were the sizes of these spaces designed to accommodate?	The walk-in cooler is sized for a week's worth of food storage, and the freezer is sized to accommodate weekly needs as well as bulk commodity purchases from the Federal government. Food storage was designed in collaboration with Aramark, the schools kitchen vendor.				

Item	SBC Member	DWG/Spec	Design Development		60% Construction Documents		90% Construction Documents	
			Comment	Designer Response	Comment	Designer Response	Comment	Designer Response
12.	Peter L'Hommedieu	E1.11	Per drawing E1.11, do you have more information on light fixture types LRD2, LRD3, and LRD4?	Cutsheets to be provided ASAP.				
13.	Peter L'Hommedieu	Specifications Volume 1, Section 004101	Per volume 1 of the specifications, section 00 41 01, will the CM create modified bid forms with their scope clarifications/instructions or separate sections with clarifications/ instructions for each Trade Contractor to include in their bids?	Fontaine Bros will create project-specific scope documents for trade and non-trade bidders.				
14.	Jeff Lundquist		Can we economize the amount of islands in the parking areas?	See comment 4. above.				
15.	Jeff Lundquist		Can we economize the retaining wall on the east of the facility – while it looks nice, I'd rather spend the \$\$ inside the building?	The retaining wall is necessary to hold back the cut. The "rock face" finish treatment of the blocks was presented at a previous SBC meeting. Scope of the wall has been greatly reduced in both length and height since that presentation. Cost difference between a more plain "rusticated" block and the "rock face" block can be reviewed and voted by the SBC. See also comment 5. above.				PRICE FOR 4/2/19
16.	Jeff Lundquist		I'd like to see utility (or jumbo) brick instead of modular used – what is the cost differential?	See comment 8. above.				PRICE FOR 4/2/19
17.	Jeff Lundquist		Can we see an option to use split-face block (used at base of NHS) instead of cast-stone on the base of the facility.	This VE was considered in SD and voted down by the SBC. D&W does not recommend split face CMU as a first choice for a building base material due to porosity of the material and salt resistance when near walkways.				PRICE FOR 4/2/19
18.	Jeff Lundquist		We should consider having a hoist on the roof, so we don't need to bring in a crane/boom truck to hoist any materials needed for maintaining our equipment.	While this is a forward-thinking comment, the potential cost should be weighed against frequency of use, rental cost of a lift, and the provision of a small portable hoist (davit) for the roof hatch for small loads. See also Note 30. below. To be discussed with the Working Group - primarily Richard Maglione				PRICE FOR 4/2/19
19.	Jeff Lundquist		What would the deductive cost be to utilize standard fire doors instead of the automatic accordion door at the three locations?	VE being currently priced.				PRICE FOR 4/2/19
20.	Jeff Lundquist		I'm concerned about the screen wall – if we were able to only use it where it was truly needed acoustically, it could provide a significant savings in terms of not just the wall, but all of the	True scope of the acoustical screen wall is being verified as part of the 60% CD effort. This depends on testing to be conducted by the acoustical consultant. Acentech is a highly respected consulting firm that relies on hard science, testing, and published acoustical properties of materials. We have great confidence in their methods. Reduction in screen wall size already underway as part of design refinement.				



Item	SBC Member	DWG/Spec	Design Development		60% Construction Documents		90% Construction Documents	
			Comment	Designer Response	Comment	Designer Response	Comment	Designer Response
			structure to withstand the moment implied by wind & drift loadings. I've seen Acentech be very conservative in the past – how do we ensure we are not being overly conservative in our screen wall design?					
21.	Jeff Lundquist		I'm concerned about snow-drift between CL H.5 and J.5. Would it make more sense to raise the elevation of the roof to stay consistent with the adjoining roofs? This could potentially allow us to reduce the size of the steel members (avoid drifts) and prevent mechanical units from getting buried by snow (and NPS staff from having to clear them).	<p>1. This roof configuration is designed as a result of the functional needs of the spaces below it and their heights. In SD we evaluated the trade-off of more uniform roof height versus the increased wall area that a higher roof would necessitate, and the added wall would be more costly than structural savings.</p> <p>2. The low roof between the main building and Gym allows very important clerestory windows in the building walls to admit natural light to the north cafeteria, as well as the Gym. This is an essential design element. If the roof is raised, those windows go away and the spaces are much darker.</p> <p>3. The structural engineer is aware of and is designing the roof structure for the drifting load.</p> <p>4. There are no mechanical units directly between the two taller roof masses. RTU-9 is more in the open, and will probably end up being surrounded by screen wall (not currently shown but priced), which will drift anyway.</p>				
22.	Jeff Lundquist		The exterior wall details specifically waterproofing details aren't quite developed yet. I'd like to minimize sealant joints between dissimilar materials and use membranes wherever possible (it's not always possible). I do not foresee NPS spending future operational dollars on re-sealing joints when sealants can fail in 5-10 years.	Duly noted. Arch to further develop details for 60% CD submission.				
23.	Jeff Lundquist		Has the low voltage designers confirmed that the runouts from the tele/data closets are short enough to maintain performance? It looks like there are several runs in excess of 250LF, which in many cases is the limit.	The Technology Consultant has done a confirmation of data run distances, and though a few spaces are near or at the limit, all are within 250' of an IDF closet. Another check will be done in CD phase.				
24.	Jeff Lundquist		Have the BMS panels for each rooftop unit been located? Do they fit? Are their runouts short enough to maintain performance?	The central BMS will include 1 main panel within the Boiler Room and 2 or 3 sub-panels as needed within remote locations (janitors closets, storage rooms): Each RTU does not require its own panel. Each RTU will include a digital controller that will be located above-ceiling near-by each RTU. These controllers will communicate with the BMS via Communication wiring.				

Item	SBC Member	DWG/Spec	Design Development		60% Construction Documents		90% Construction Documents	
			Comment	Designer Response	Comment	Designer Response	Comment	Designer Response
25.	Jeff Lundquist		Are we sure the electric room by code doesn't need to be rated?	Electric rooms, by code, do not have to be rated: with the exception for Emergency Electric rooms which area 2-hour rated.				
26.	Jeff Lundquist		Are we sure the electric room by code isn't considered a "vault" requiring a 3-hour separation with no GWB construction?	GGD- The electric room is not a vault. It does not contain a high-voltage service or have liquid cooled equipment (transformers).				
27.	Jeff Lundquist		Can we see an option to economize the stair 5 lightwell? As designed we'd be spending a lot of money in the lightwell (fire rated curtain wall), and while it's nice, I don't see it as being core to the academic mission.	The Stair 5 design is central to the design of the building, literally and figuratively: <ul style="list-style-type: none"> <li>* It is the crossing through which most building occupants will pass several times a day.</li> <li>* It is the orientation point both vertically through the building and to the outdoors from the inside of the building. The large interior windows are needed to maintain the sense of lightness in the center of the building and to maintain contact with the outdoors, a stated goal in the Visioning work that was done at the start of the project.</li> <li>* the curtain wall product being used is visually much lighter than the typical heavy and "chunky" hollow metal frames and glazing seen so often in schools. We would argue that avoiding design that conveys heaviness is central to the occupants' enjoyment of the building and thus central to the mission.</li> </ul>				
28.	Jeff Lundquist		Can we delete mock-ups and go with benchmarks (that stay) instead? While mock-ups have value, for this facility I'd rather save the money and do an early benchmark that stays.	We are currently considering this request, in conversation with Fontaine Bros.				PRICE FOR 4/2/19
29.	Jeff Lundquist		We have an awful lot of cameras shown (70+) – Is this many really needed? Can we actually manage the data this will create?	The amount of cameras shown is actually fairly typical for a school, but on the high end at this still-early design stage for the Security system. The number and location of cameras will be tailored in the next CD submission in concert with Working Group input.				
30.	Jeff Lundquist		Do we have roof davits included for maintenance tie-off points?	We understand the definition of roof davit to be "a portable small crane arm, and the permanent base into which it is fitted", which refers to question 18. above. If Jeff is referring to an anchor point, we can evaluate their location in the project. Note that no rooftop equipment is located within 10 feet of the edge of a roof.				
31.	Jeff Lundquist		I believe the drainage design (particularly in the parking areas) can be economized, especially if islands can be deleted. There may be redundant drainage in the northwest parking lot.	Some site drainage/ stormwater VE currently being priced.				PRICE FOR 4/2/19
32.	Jeff Lundquist		Why are we showing construction fencing on the west side of the facility, then going all the way up the utility easement? I'd think the fence on the west side could be shortened (the hill is a substantial barrier), and for the short	The project currently shows fencing around the total Limit Of Work area. We agree that with the limited amount of work being done there (only Water goes all the way to N. Main Street and Tel / Data extends halfway to NM street.), the fence could be closed at the NW corner of the site proper, at curve in the north loop road. To be incorporated in next issue of documents.				

Item	SBC Member	DWG/Spec	Design Development		60% Construction Documents		90% Construction Documents	
			Comment	Designer Response	Comment	Designer Response	Comment	Designer Response
			duration we're in the utility easement, the erosion (silt) fence should be adequate.					
33.	Jeff Lundquist		Could we consider using no curbs at some of the locations that cape-cod berms are shown (away from sidewalks)? Most streets in town have no curbs at all. Where we have sidewalks, we should use granite though.	Several issues occur when no curbing is installed, including: issues with establishing driveway shoulder, erosion problem, vehicles parking on shoulders causing erosion and impacting pavement edges. For low traffic drives this approach can work, but so often with schools, if no curbing is provided to discourage rogue parking and pulling off, pavement edges and turf grass take a beating. We do not recommend removing the curbs on the rear drive, and for any of the main drives, this would be a significant design change with severe schedule impacts, and is not advised.				
34.	Jeff Lundquist	C3.05	C3.05 – Typically I see the established benchmarks identified on civil control drawings – I couldn't find it.	To be included for final DD submission.				
35.	Jeff Lundquist	Civil	Civil – I assume all inverts / cover on all storm lines have been checked	Civil utilities and land surface are 3-D modeled, and thus checked for cover in the process of design.				
36.	Jeff Lundquist	C7.01	C7.01 – On the catch basin and storm manhole details, I didn't see finger (perforated) drains called for. Without them you end up with the permanent “wet spot” during construction and afterwards. When I was working for a site contractor, we would always add these in as change order #1 (they benefit everyone), and if the client didn't want to pay for them, we'd install them anyway because it saved us from rework.	The “finger drains” suggested at each catch basin (and possibly some manholes) are 4" perforated drains that extend out horizontally roughly 3' on all four sides of a structure, are about 12"-18" below the surface, and tie in with a knockout into the catch basin. Their purpose is during construction to drain the permanent “soft spot” immediately adjacent to a structure that is difficult to drain (or ultimately compact properly), both in paved and landscape areas, as the grade is typically below the rim of the catch basin during construction. This is particularly an issue for sites that get left in an unfinished condition for months through a wet (or freeze/thaw) season - which will likely be the case at Balmer. Some of these structures have already been included in bioretention basins, and could be added to the water quality swale and at inlets in landscape areas. Civil engineer will evaluate the use of finger drains for the next submission cycle, 60% CD phase.				
37.	Jeff Lundquist	AP1.00	AP1.00 – On the phasing plan, should we include the construction of the rear (north) soccer field in an early season? I believe the school district wanted to have one grassy area for the kids to play on during construction, and this could provide that area, providing that logistics could be in place to allow it to safely happen.	Fontaine has discussed getting the north U-10 soccer field behind the school completed early enough to have it available for start of school September 2021. This means it will have to be completed in 2020. Fontaine is creating GREEN Space in the added field area being made available to south of the Existing Playground (taking outfield from the baseball field). Even if we could complete the U-10 Soccer field by end of 2019, access to it THROUGH the construction site for use in 2020 is not practical / safe. A for fields other than the U-10 soccer field, Fontaine does not see any way to complete them by end of 2019. Also, seeded grass needs at least one full growing season before it can be played on.				

Item	SBC Member	DWG/Spec	Design Development		60% Construction Documents		90% Construction Documents	
			Comment	Designer Response	Comment	Designer Response	Comment	Designer Response
38.	Jeff Lundquist	A1.13	A1.13 – change wording of divider curtain to partition	The divider between the halves of the gym court is a fabric and mesh curtain, not a hard partition. Fontaine gave a ROM price for hard partition of an incremental add of \$60K, which the Working Group rejected.		PRESENT 4/2/19		
39.	Jeff Lundquist	A Series	With the restrooms with external sinks, I think they'd work great up to about 3rd grade. I'd think we'd want traditional restrooms for the 5th graders (and potentially 4th), especially as some of the female students at that age may be starting their cycles and want a private place to wash hands.	This toilet room layout was developed in collaboration with the Working Group. D&W will revisit with Working Group based on these comments and report out recommendations.				
40.	Jeff Lundquist	Structural	Structural – In other states I've seen the structural designers be required to identify the most robust area of the facility for pupils and staff to "shelter" in if a tornado is near (without declaring the area "tornado safe" – as the design codes in this area are not intended for that). It would be good for the school district's emergency planning to know this information.	There are no code requirements in MA to designate a "shelter area" in the school. The school as a whole is NOT a designated Emergency Shelter, which would apply to the whole building, necessitate increased structural requirements, and significantly increase costs. Also, no specific zone within the building is being designed as a "shelter-in-place zone".				
41.	Jeff Lundquist		I was having trouble finding if cages are required on the fire protection in the gymnasium and cafeteria. I trust they are.	Cages will be specified on all lighting and devices in the gym.				
42.	Jeff Lundquist	Plumbing	Plumbing – the amount of rain leaders seems excessive. In some cases I wonder if it will be possible to achieve the required pitch with some of the long runs in the building. Would it be more cost effective to run more of the rain leaders directly to the perimeter?	Roof pitch calcs have been done and rain leaders are designed per code.				
43.	Jeff Lundquist		Could the perimeter drainage system in some areas be eliminated and just use sheet-flow to a catch basin?	As the drainage design is further refined, the layout of the catch basins and manholes may become more efficient, but the current design is based on the regulations and standards.				
44.	Jeff Lundquist		I was having trouble finding the wall finishes in the					

Item	SBC Member	DWG/Spec	Design Development		60% Construction Documents		90% Construction Documents	
			Comment	Designer Response	Comment	Designer Response	Comment	Designer Response
			custodial closets. We should ensure that they're cement board with FRP, Altro (Whiterock) or another clean water resistant product.	Finishes under review in these areas. Recommendations duly noted.				
45.	Jeff Lundquist	Structural	Structural – please confirm the operating weights of the rooftop equipment were used in the structural calculations in lieu of the “shipping” weights. As simple as this seems, I've seen this missed, causing structural rework.	We confirm that the Structural Engineer has designed for an adequate weight allowance for MEP FP loads.				
46.	Jeff Lundquist		It seems like there is very limited roof piping & ductwork, which may make this a moot point. Please confirm that the structural engineer has considered rooftop ductwork and piping in his structural calculations. (I've seen this missed too...)	We confirm that the Structural Engineer has designed for an adequate weight allowance for MEP FP loads, and will continue to coordinate with MEP FP engineers to identify any significant heavy point loads in early CD phase.				
47.	Jeff Lundquist	Structural	Structural – Are we comfortable with piping being hung from joists as some details do show? It can be done, but I've seen joists get compromised. Typically this is a condition we try to avoid, and use wide flanges or channels when we have to hang piping of any decent size.	MEP FP documents will provide supplementary framing members to avoid hanging MEP FP items from the deck. Joists are designed to take an allowance of MEP FP load, which is distributed by secondary framing or Uni-Strut systems. Significant heavy point loads are identified and framed case-by-case if needed.				
48.								
49.								
50.								
51.								
52.								



LEGEND: Green shading indicates Design Refinement already underway  
"ILO" = In Lieu Of  
RED = 3/21/2019 OWNER'S COMMENTS/REQUEST FOR VE PRICING

			Fontaine Bros Value (\$)	Design Refinements Underway (\$)	Design Team Suggested VE	SBC-Approved VE Items	Design Team Suggested Project Alternates	Project Alternates Approved by SBC	Remarks/ Comments
	DWG reference	Alternates (not yet in order of preference)							
1		Add - SecureShades on all relevant exterior windows and interior borrowed lites	\$950,000						Gordon Quote
2		Add - SecureShades on all relevant 1st Level exterior windows and all interior borrowed lites	\$720,000						Gordon Quote DEDUCT \$100,000 Ext SecShade 2 & 3
3		Add - digital site signage at Crescent St. entrance	\$43,000						ROM Pending Final Design
4		Add - acoustically absorptive roof screens ILO open louver design at all screens	\$428,400						May be required by acoustical needs at east prop line. May also need only some screens, not all, to be acoustic
		Value Engineering Suggestions							
		Site / Civil							
C01	C5.00-VE/Item 14 & 21	Delete west edge gravel wetlands, pitch entry drive to swale, change catch basin type - see attached drawing	(\$285,450)	(\$285,450)					Gravel wetlands not providing benefit to the SW design
	Items 5 & 15	Retaining Wall: Provide more plain "rusticated" block ILO "rock face" block	(\$8,000)						Concrete more expensive and invasive with retaining toe footing
		Landscape							
L01	L2.2-2.3	Provide 4" sloped granite curbing ILO 5" vertical granite - 5,056 LF see attached drawings	(\$39,009)						
L02	L2.30	Provice Bituminous side walks ILO concrete at areas not within inner curb line - see drawing	(\$56,736)						
L4.30	Item 7	ALL Chainlink and Backstop Fencing galv. ILO vinyl clad	(\$67,021)						
		Structural - no items at this time							
		Architectural, Exterior Items:							
A01	A4 dwgs / Item 16	Provide Utility brick ILO standard Modular brick on entire building.	(\$90,585)						Utility Brick = 4" x 4" x 8" nominal.
A02	A3.10	Optimize mechanical screen sizes - reduce LF by 20% (9,520 sf, 1,190 lf to 7,616 sf = 1,904 sf)	(\$104,720)	(\$104,720)					
A03	A4.11-13 / Item 17	Change cladding from HPL Panel to Brick - 1,123 SF - see drawings \$29.84 SF	(\$33,507)						South elevations where A and B wing intersect with C wing.
A04	A4.12 / Item 8	Change CW glazing system to HPL Panel system - 168 SF - see drawings \$30.25 SF	(\$5,082)						North Elevation at Stair 5
A05	A4.12 / Item 8	Change SF glazing to Brick cladding - 103 SF - see drawings \$28.25 SF	(\$2,910)						East and West elevations at Stairs 3 and 4
	Item 17	Provide Split Face CMU in lieu of Cast Stone Base	(\$76,500)						4,200 sf +-
	Item 18	ADD Roof Hoist	\$48,200						ROM Require manufacturer/Lifting Capacity/Steel - structural requirements to mount/*Admiral 3000 lb Capacity DAVIT CRANES - Arch and CM have concerns on this item.
	Item 28	Delete specified exterior mock-ups and go with in-place ILO	(\$41,000)						
		Architectural, Interior Items:							
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)						(ROM - TBD Final Design)Prob will be required by Fire Chief and Building Inspector
A05		Provide narrow vision lites at all Classroom doors ILO half-glass door lites.	(\$16,932)						Prob will be required by Police Chief.
A06		Delete blackout shades from exterior windows - provide light-filtering fabric shades only	(\$22,100)						
	Item 38	A1.13 – "change wording of divider curtain to partition" , i.e. Provide Hard Divider partition ILO fabric/mesh curtain as specified.sensor edge, STC 49	\$60,844						Budget: Modernfold 733EG @ 64"0" wide by 28'0" high, single stack, no pocket, standard vinyl, (1) pass door with exit, safety sensor edge, STC 49
	Item 27	Stair 5 - Reduce amount of fire-rated glazing/ economize design.	\$0						Stair 5 Design requirements for pricing TBD - to be discussed with the Working Group.
		Kitchen - no items at this time							
		Plumbing							
P01		Delete drinking fountains in PK ELA #1203A, Kinder ELA #1223A	(\$7,020)	(\$7,020)					bubbler fountains in all classrooms - duplicative
		Mechanical - no items at this time							
		Electrical							
E01		Delete lightning protection system and install lightning preventor system	(\$50,845)						EE advises this is usually about a 50% savings.
		Technology - no items at this time							
		Subtotals	(\$865,305)	(\$397,190)					

**Falvey Associates**  
**Preconstruction Inspections**  
**15 Clarridge Circle**  
**Milford, Massachusetts 01757**  
**Phone #: (508) 328-8789**

**Page 1 of 2 Pages**

**Submitted To:** Fontaine Bros., Inc. | Construction Managers \_ General Contractors  
510 Cottage Street, Springfield, MA 01104 | 12 E. Worcester Street, Worcester, MA 01604

**Attn:** Mr. Joel Kent

**e-mail:** jkent@fontainebros.com

**Date:** March 25, 2019

**Phone:** C: 781.291.9625 | T: 413.781.2020 | F: 413.734.1881

**Project Location:** Northbridge ES project / W. Edward Balmer School

**Scope of Work**

The estimate is based upon the following:

We hereby submit specifications and estimates for Preconstruction Surveys for a project located at Northbridge ES project / W. Edward Balmer School, Northbridge, MA

- A. Visible pre-existing damage will be documented by use of a video camera with an audio narration describing noticeable cracks, water damage, settlement and other visible existing damage on the floors, walls, ceilings and exterior conditions (Some Photos will be included)
- B. Falvey Associates will notify property owners of an offer of a preconstruction inspection / 3 Attempts will be made
- C. Falvey Associates will schedule preconstruction surveys
- D. Price includes travel, toll fees, parking, material, site inspections and labor
- E. Falvey Associates will secure all video and photography for future use
- F. Any preconstruction surveys or additional areas not listed on this proposal will be charged at customary cost
- G. Falvey Associates will make 2 attempts to offer a survey of the property. If no response after 2 attempts, Falvey Associates will send a certified letter to the property owner
- H. Falvey Associates will edit video and submit a copy to Fontaine Bros., Inc.
- I. Survey Includes:**

- 1. "Base Bid" – Properties at 45-55 Crescent St then up Mason Road from intersection of Crescent starting at 292 through 130 (YELLOW)  
\$2975 (Certified Notifications – Add \$240)
- 2. "Alternate 1" – ADD for properties on other side of Mason Road 291, 277, etc. all the way up to 115 (ORANGE)  
\$1625 (Certified Notifications – Add \$150)



3. "Alternate 2" – ADD for properties 56, 68 **Evergreen Circle** at top of map (not sure what road that is) (LIGHT BLUE)  
\$300 (Certified Notifications – Add \$30)
4. "Alternate 3" – ADD for 236 and **246** North Main (PURPLE)  
\$300 (Certified Notifications – Add \$30)

Any and all videotapes will be maintained in a secure place and no individual, corporation or any other entity shall have access to the documents, excepting the property owner, the Insurance Company and any of their agents, attorneys or representatives. However, shall the property owner file a property damage claim or initiate litigation, the document shall become evidence of the condition of the property and the videotapes shall be utilized in defense of said claim. Therefore, experts, agents of the Insurance Company and others shall view the videotapes. Otherwise, the videotapes shall be kept completely confidential.

We propose hereby to furnish material and labor-complete in accordance with above specifications for: **Lump Sum \$5200 (Five Thousand Two Hundred Dollars / Includes Certified Notifications)**

**Payment** to be made as follows: Upon completion of Preconstruction Surveys

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. All agreements contingent upon strikes, accidents or delays beyond our control. Falvey Associates to carry insurance.  
Note: This proposal may be withdrawn by us if not accepted within 7 days.

Acceptance of Contract - The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do work as specified.  
Signing of this document constitutes a valid contract. Payment will be made as outlined above.

Authorized Signature: Falvey Associates - David F. Falvey\_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

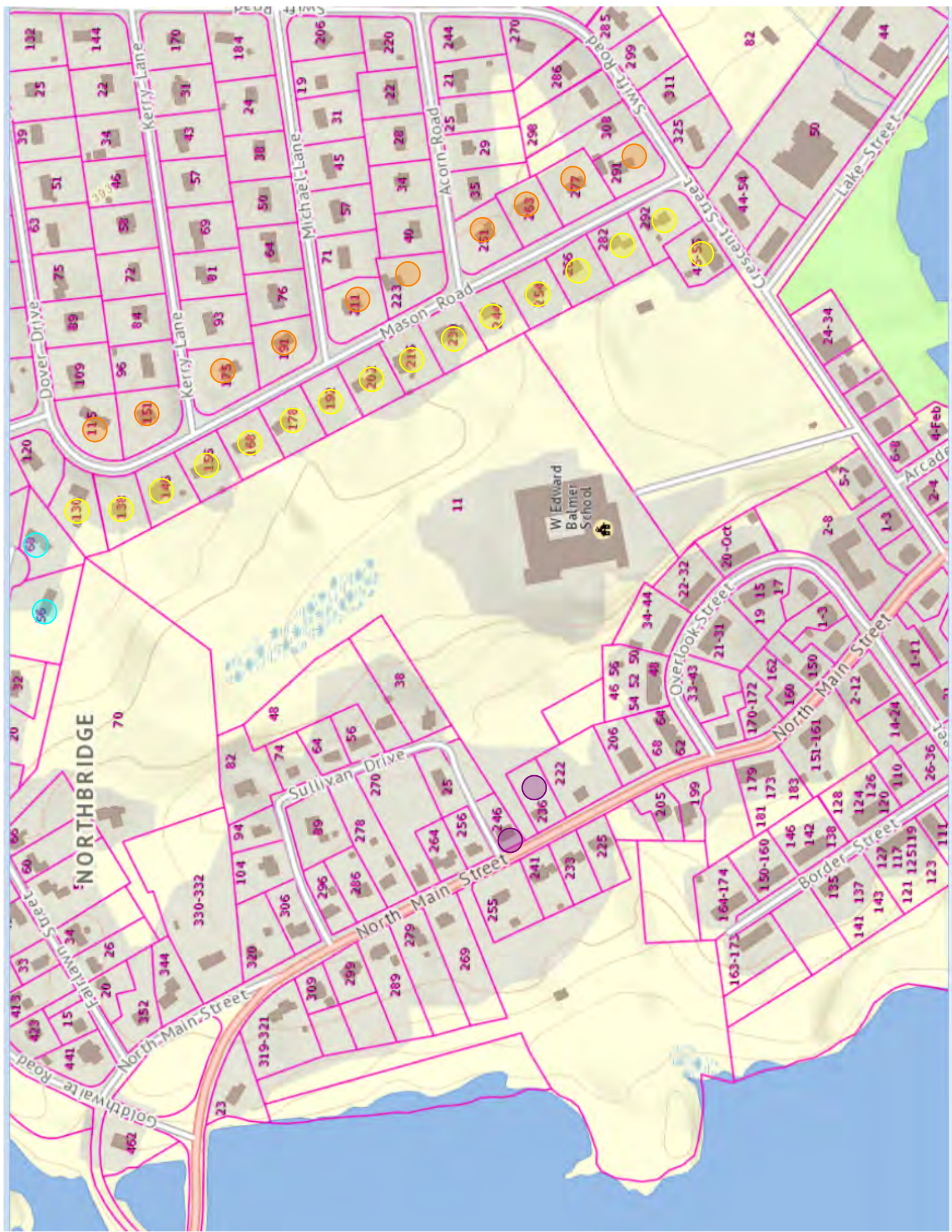
Authorized Signature: Fontaine Bros., Inc. Signature: \_\_\_\_\_

Please Print Name: \_\_\_\_\_ March \_\_\_\_\_ 2019.

Please scan and e-mail to: [dfalvey50@yahoo.com](mailto:dfalvey50@yahoo.com)

Mail: Falvey Associates  
15 Clarridge Circle  
Milford, MA 01757







# THE NEW W. EDWARD BALMER SCHOOL

NORTHBRIDGE, MASSACHUSETTS



SCHOOL BUILDING COMMITTEE MEETING

APRIL 2, 2019



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



# AGENDA

- DD Progress Report
- Proprietary Materials
- **Response to Owner's Comments**
- Value Engineering Items



# DD PROGRESS REPORT/ NEXT STEPS

- 3/19 SBC reviewed Final DD Estimate
- 3/20- 4/2 Assemble MSBA DD Submission Binder
- 3/27- 4/3 Finalize DD Drawings and Specifications
- 4/2 SBC Review final DD documents
- 4/3 Submit Conservation Committee permit package
- 4/5 Submit DD document package to MSBA
- 4/9 Submit Planning permit package
- 4/8 Construction Documents (CD) Phase begins





# PROPRIETARY ITEMS

SECTION	ITEM	LOCATION IN PROJECT
05 12 00	FERO Anchor Systems – “melt-away” clips that join fire wall to structural steel frame	At fire wall, both sides
08 35 13.23	Folding Fire Separation Doors: “Won-Door” Corporation accordion horizontal-acting automatic fire door.  Possible VE/ AHJ/ SBC veto item	Three (3) fire wall passage doors, one each level of the building.
08 63 00	Metal-Framed Skylights – Translucent Panel Skylight: Kalwall or Major Industries (2 options) Structures Unlimited is third mfr. – see note at right	Two skylights, over Stair 5 and Light well adjacent to Media Center
08 71 00	Door Hardware - Lockset Cores and Keys: Schlage “Primus”.	All building locksets and locking door hardware



08 80 00	Protective Glazing Assemblies - Insulated Batter-Resistant Glazing: School-Guard "SG-4" OR: 3M S&S Window Films (2 options)	Main entry vestibule, main office windows, and Pre-K Vestibule glazing
08 80 00	Translucent Glazing: "Solera" insulated translucent glazing units, OR "Okalux Plus" insulated translucent glazing units (2 options)	Gymnasium clerestory windows
09 84 30	Sound-Absorbing Wall Units: Direct-attach wall panels: Knauf Ecosound and Akusto Texona	Cafeteria, OT/PT rooms, Music Rooms, Library-Media Center, ELAs
09 84 30	Sound-Absorbing Wall Units for High Abuse Locations: Armstrong "Tectum" direct attach panels	Gymnasium walls
10 44 00	Exterior Fire Protection Specialties: "Knox Box" Series 3200 rapid entry system	Front and rear building entrances. Two locations.





# PROPRIETARY ITEMS

23 00 10	BMS/ Mechanical Controls  Johnson Controls	Building HVAC Controls
27 20 00	Data Communication System, Network Switches: Aruba 5400 series	At MDF Room.
27 20 00	Data Communication System, VOIP Telephone System: TBD	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: TBD	Throughout the school.



# RESPONSE TO OWNER'S COMMENTS

Refer to printed handout  
in Agenda packet.



# RESPONSE TO OWNER'S COMMENTS

ITEMS 4,14: The parking lot islands are required by  
Northbridge Zoning Bylaws.

“173-27.F Landscaping requirements. All nonresidential parking lots shall be effectively landscaped to reduce the visual impact of glare, headlights and parking lot lights from the public right-of-way and from adjoining properties. In addition, parking lots shall be adequately shaded to reduce the amount of reflected heat.

173-27.F.(3) Landscaping in interior areas. Landscaping areas shall be provided for interior parking areas so as to provide visual and climactic relief from broad expanses of pavement and to channelize and define logical areas for pedestrian and vehicle circulation.

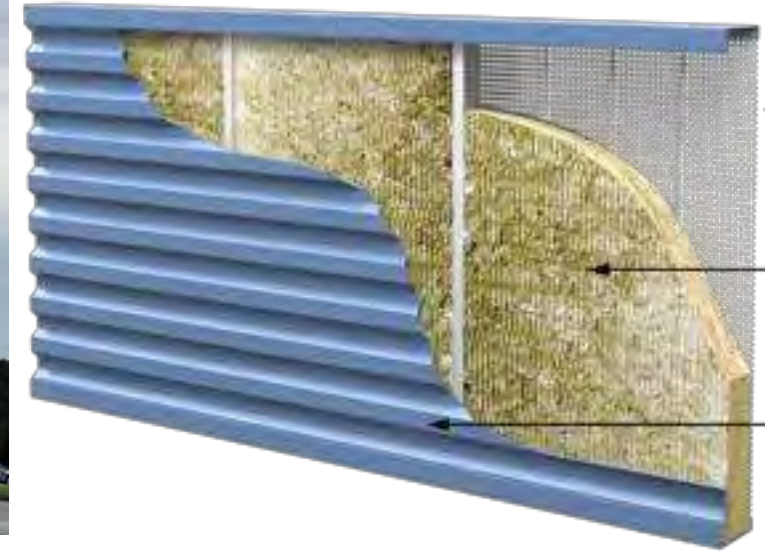
(a) Interior parking areas shall be deemed to be all parking areas.

(b) At least 5% of the gross area of the interior parking area shall be landscaped. These landscaped areas shall include trees sufficient to provide shading of parking areas.

(c) Interior landscaped areas shall be dispersed so as to define aisles and limit unbroken rows of parking to a maximum of 100 feet. Landscaping between rows of parking shall be at least eight feet in width.”



# VE LIST - ALTERNATES



	DWG reference	Alternates (not yet in order of preference)	
1		Add - SecureShades on all relevant exterior windows and interior borrowed lites	\$950,000
2		Add - SecureShades on all relevant 1st Level exterior windows and all interior borrowed lites	\$720,000
3		Add - digital site signage at Crescent St. entrance	\$43,000
4		Add - acoustically absorptive roof screens ILO open louver design at all screens	\$428,400





DELETE  
GRAVEL  
WETLANDS

### Rain Guardian—Turret

Standard exterior dimensions:

46" x 50" base, 19.5" total height

Turret price:

Fiberglass grate (1,760 lb. concentrated load)—Contact ACD



Fiberglass grate (2 piece)

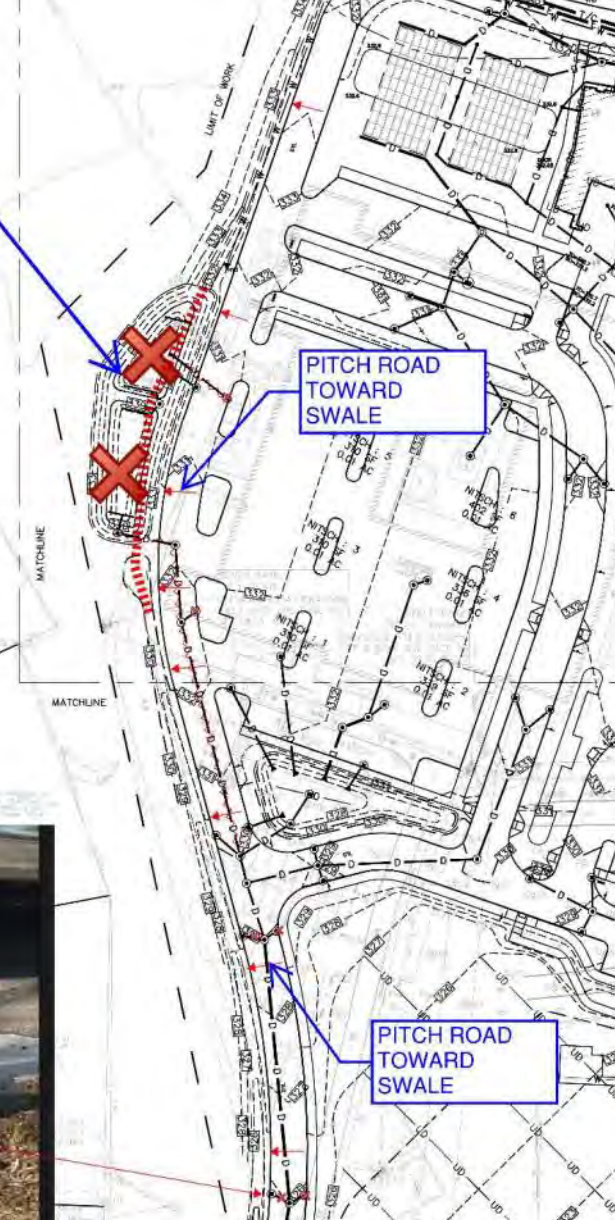
Anodized aluminum filter  
frame and fiberglass filter grid

Steel reinforced, cold joint  
secured monolithic concrete  
riser and base (1,030 lbs.)

Manufactured by  
**FORTERRA**  
Structures & Specialty



USE AN INLET STRUCTURE SIMILAR TO INLET  
SHOWN IN PICTURE



VE LIST: C01/  
ITEM 14 & 31

C01	VE/Item 14 & 31	Delete west edge gravel wetlands, pitch entry drive to swale, change catch basin type - see attached drawing	(\$285,450)
	Items 5 & 15	Retaining Wall: Provide more plain "rusticated" block ILO "rock face" block	(\$8,000)





# VE LIST: ITEM 5 & 15

C01	CS.00- VE/Item 14 & 31	Delete west edge gravel wetlands, pitch entry drive to swale, change catch basin type - see attached drawing	(\$285,450)
	Items 5 & 15	Retaining Wall: Provide more plain "rusticated" block ILO "rock face" block	(\$8,000)





# VE LIST:

## L01

L01	L2.2-2.3	Provide 4" sloped granite curbing ILO 5" vertical granite - 5,056 LF see attached drawings	(\$39,009)
L02	L2.30	Provide Bituminous side walks ILO concrete at areas not within inner curb line - see drawing	(\$56,736)
L4.30	Item 7	<b>ALL Chainlink and Backstop Fencing galv. ILO vinyl clad</b>	<b>(\$67,021)</b>





# VE LIST: L02

L01	L2.2-2.3	Provide 4" sloped granite curbing ILO 5" vertical granite - 5,056 LF see attached drawings	(\$39,009)
L02	L2.30	Provide Bituminous side walks ILO concrete at areas not within inner curb line - see drawing	(\$56,736)
L4.30	Item 7	<b>ALL Chainlink and Backstop Fencing galv. ILO vinyl clad</b>	<b>(\$67,021)</b>

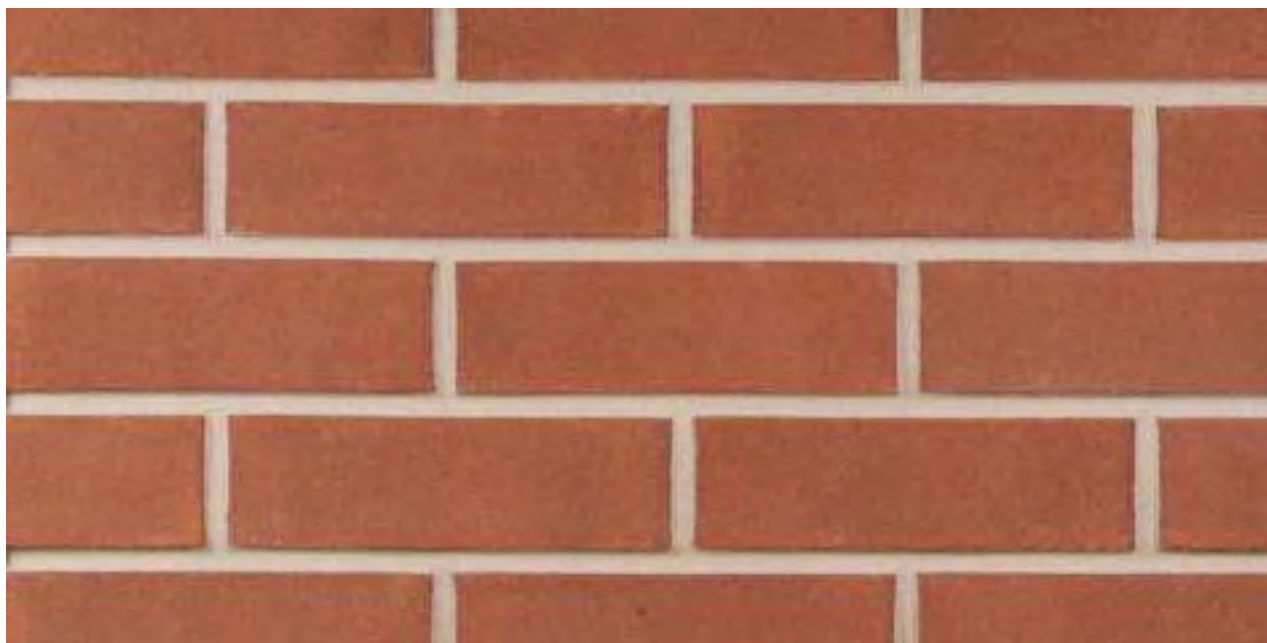




# VE LIST: ITEM 7

L01	L2.2-2.3	Provide 4" sloped granite curbing ILO 5" vertical granite - 5,056 LF see attached drawings	(\$39,009)
L02	L2.30	Provide Bituminous side walks ILO concrete at areas not within inner curb line - see drawing	(\$56,736)
L4.30	Item 7	<b>ALL Chainlink and Backstop Fencing galv. ILO vinyl clad</b>	<b>(\$67,021)</b>





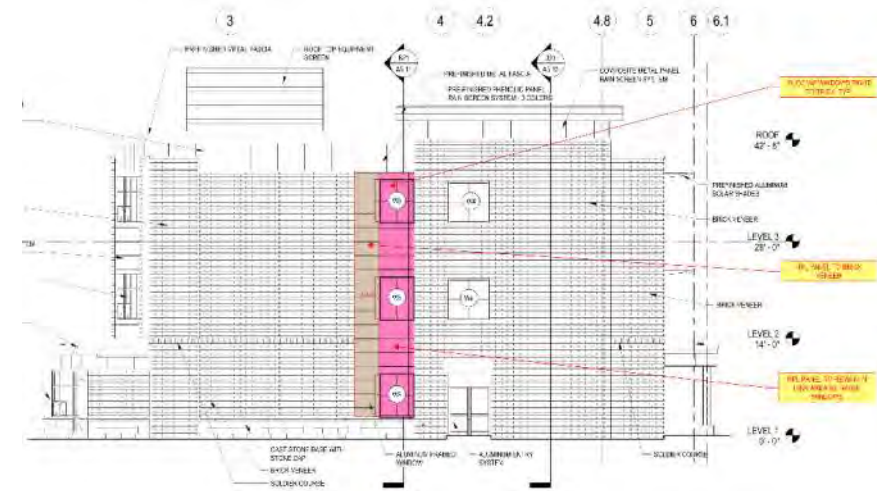
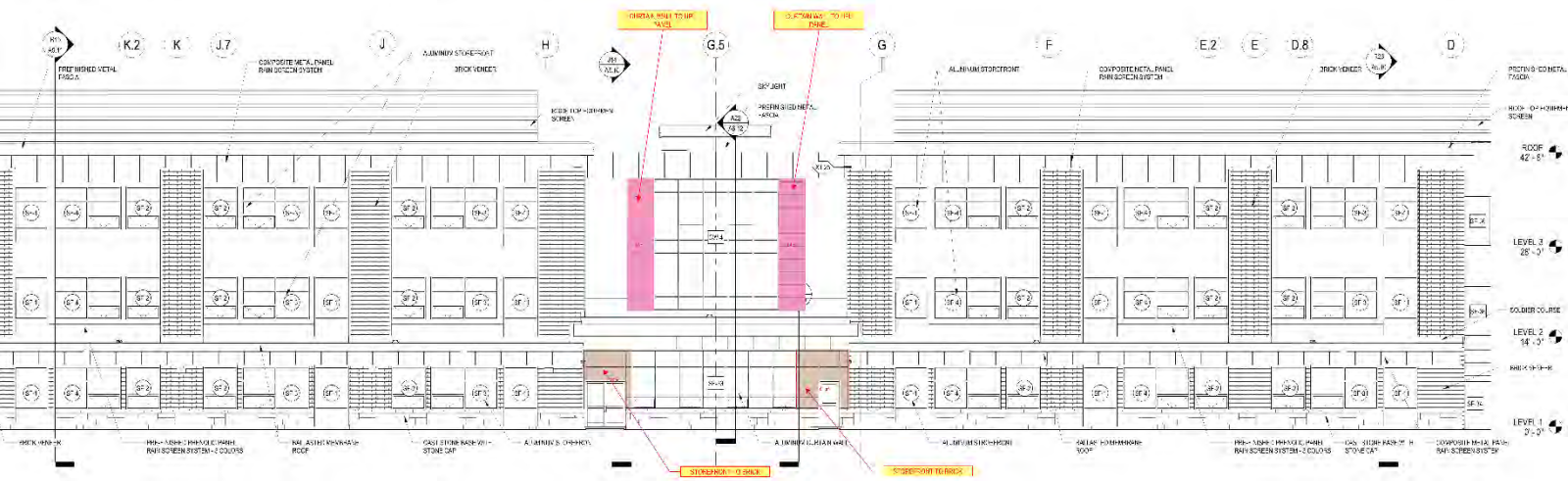
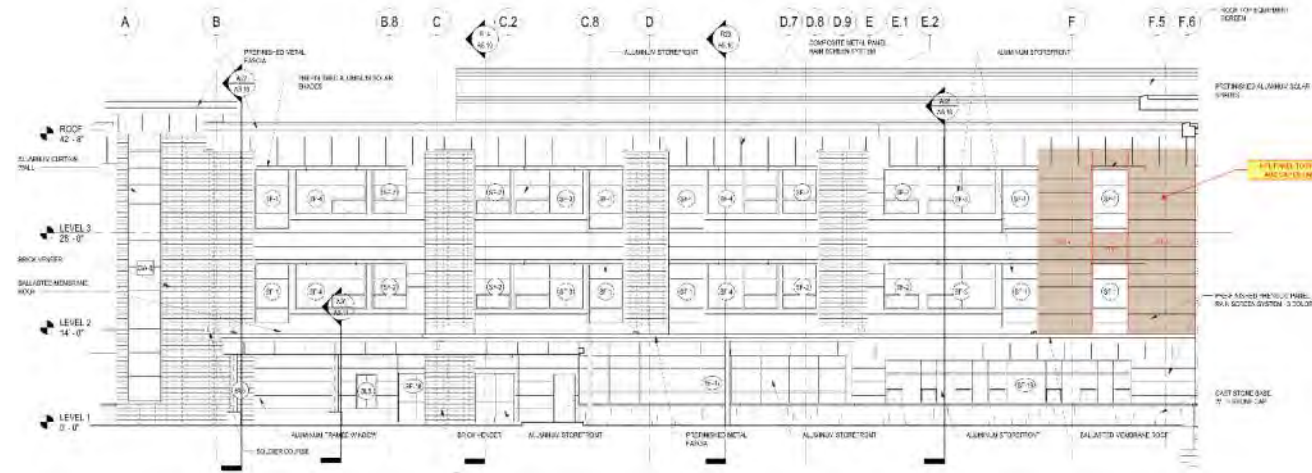
VE LIST:

A01- ITEM 16

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

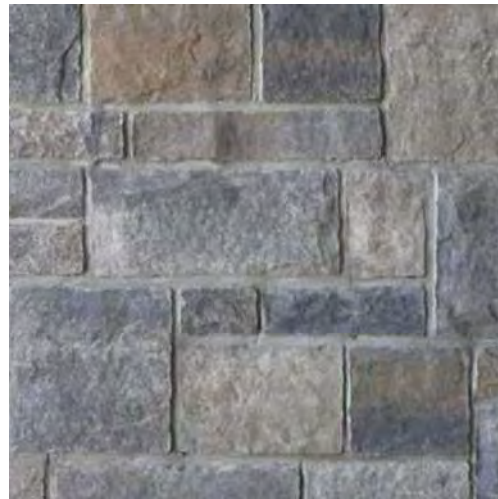
A03	A4.11-13 / Item 8	Change cladding from HPL Panel to Brick - 1,123 SF - see drawings \$29.84 SF	(\$33,507)
A04	A4.12 / Item 8	Change CW glazing system to HPL Panel system - 168 SF - see drawings \$30.25 SF	(\$5,082)
A05	A4.12 / Item 8	Change SF glazing to Brick cladding - 103 SF - see drawings \$28.25 SF	(\$2,910)





## “CAST STONE” CMU:

- very weather resistant
- salt-resistant
- suitable for building base
- “Super CMU”



## “SPLIT FACE” CMU:

- comparatively porous
- moderately salt-resistant
- not best choice for building base
- ground contact not advised



VE LIST: ITEM 17

Item 17

Provide Split Face CMU in lieu of Cast Stone Base

(\$76,500)



5PT30

# ADMIRAL SERIES

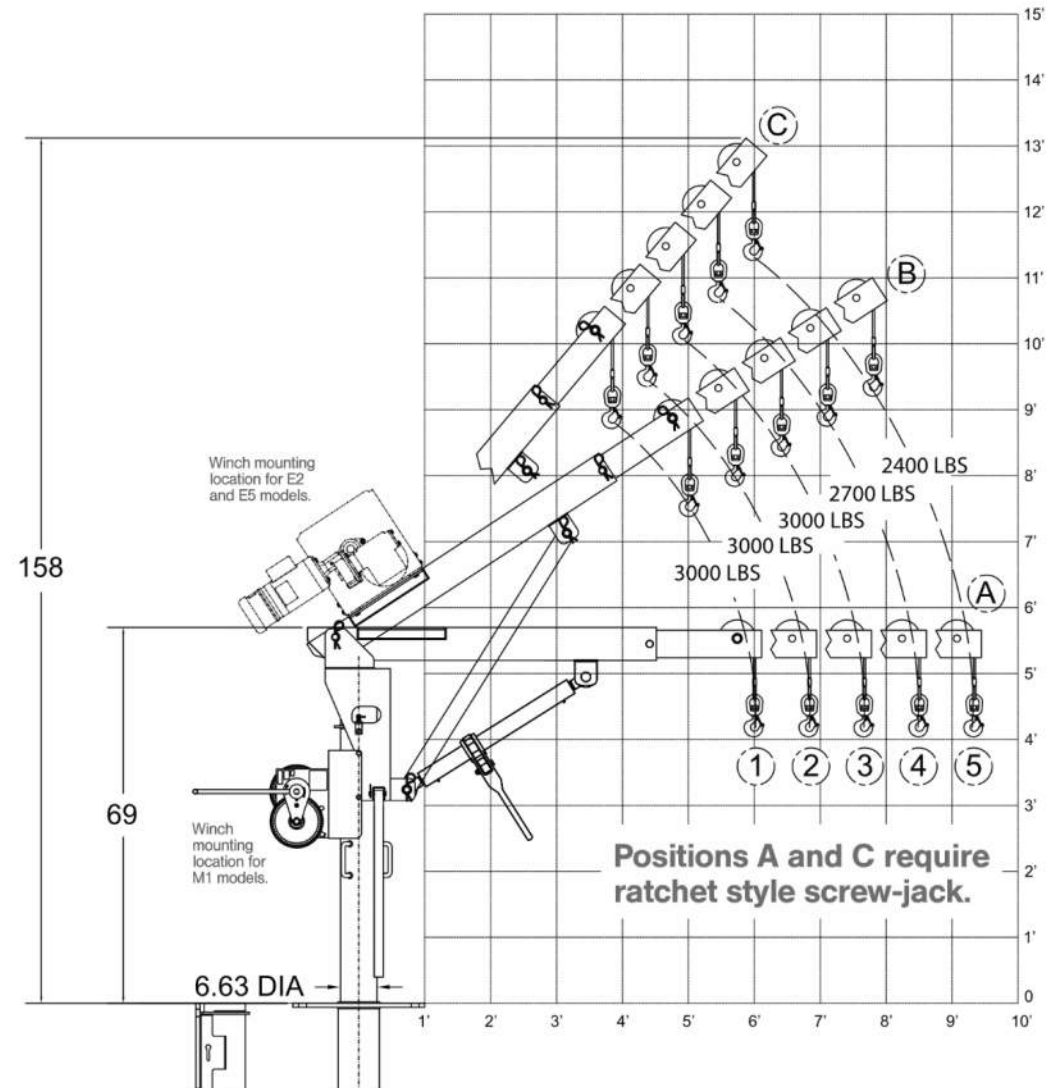
Therm Admiral Series transportable davit crane offers the best of all worlds, handling large loads up to 1.5 tons, with an adjustable boom for high lifts and almost 10 feet of reach, and can still be disassembled for relocation.



## 3000 lb Capacity Transportable Davit Crane

- Transportable
- Adjustable 5 Boom Lengths
- Adjustable Boom Angle
- Bearings for Smooth 360° Rotation
- Manual or Power Winch Operation
- Three Corrosion-Resistant Finishes
- Mast Locks in Six Positions
- Variety of Bases
- 2-Year Warranty

# VE LIST: ITEM 18



Item 18

ADD Roof Hoist

\$48,200



# VE LIST: ITEM 28



Item 28

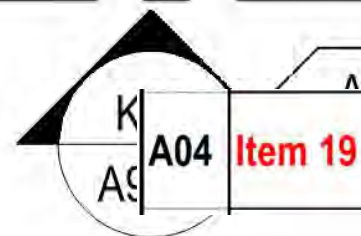
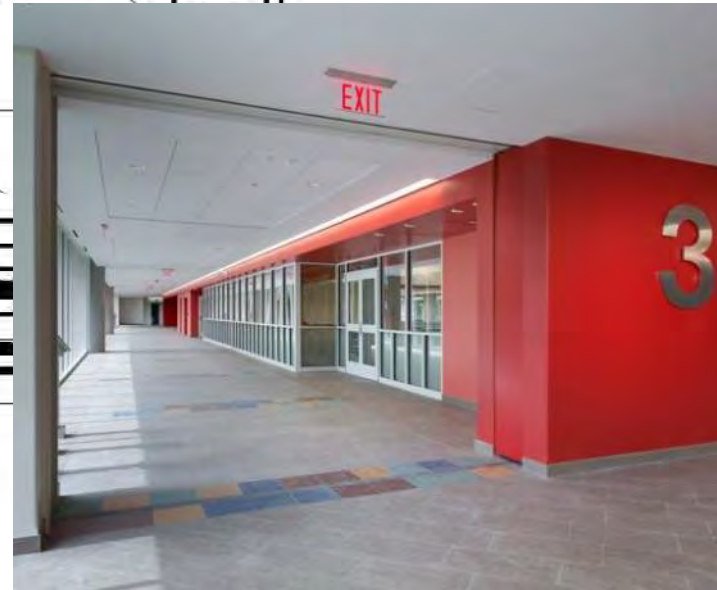
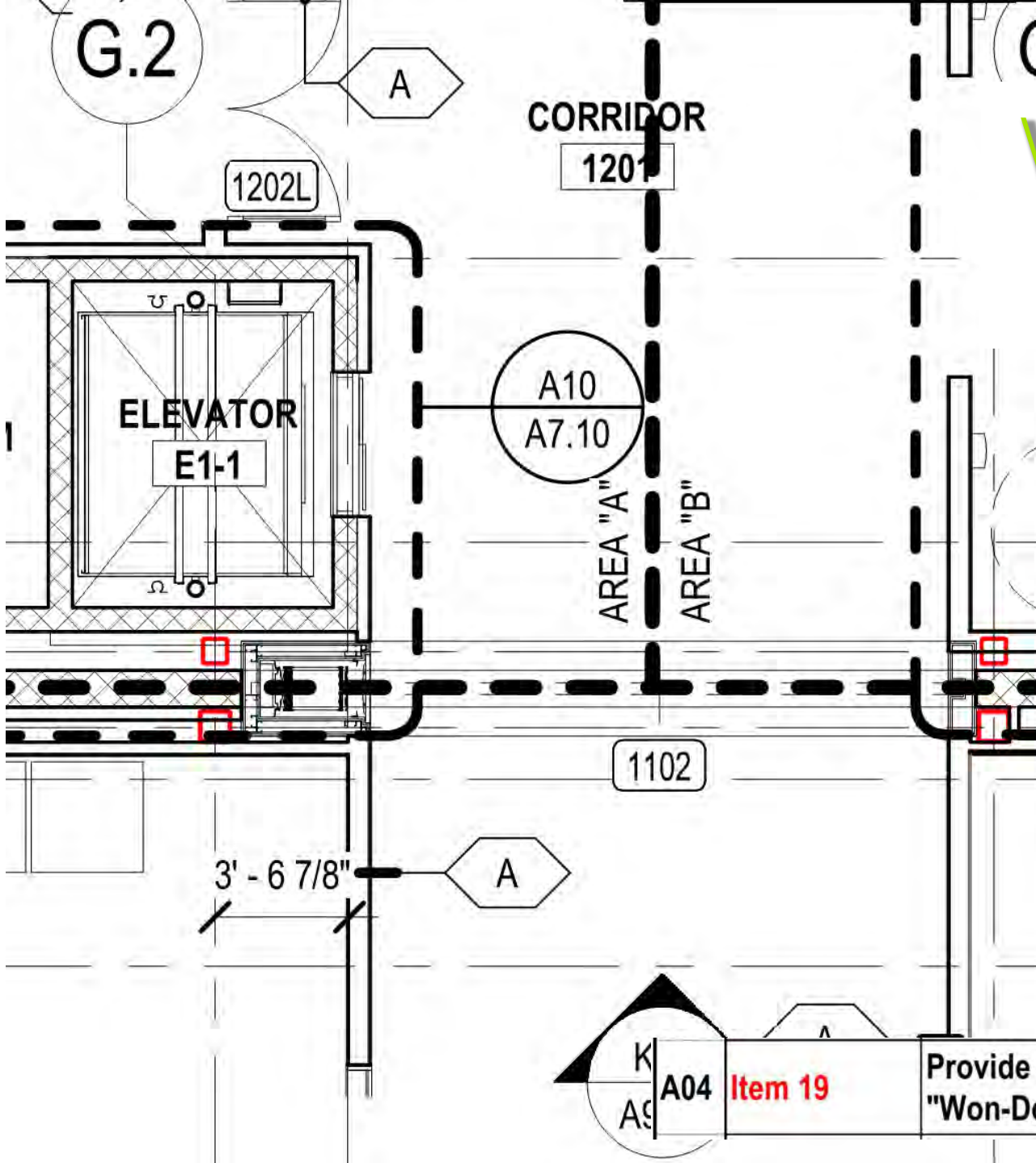
Delete specified exterior mock-ups and go with in-place ILO

(\$41,000)



# VE LIST: A04-ITEM 19

## AS DESIGNED

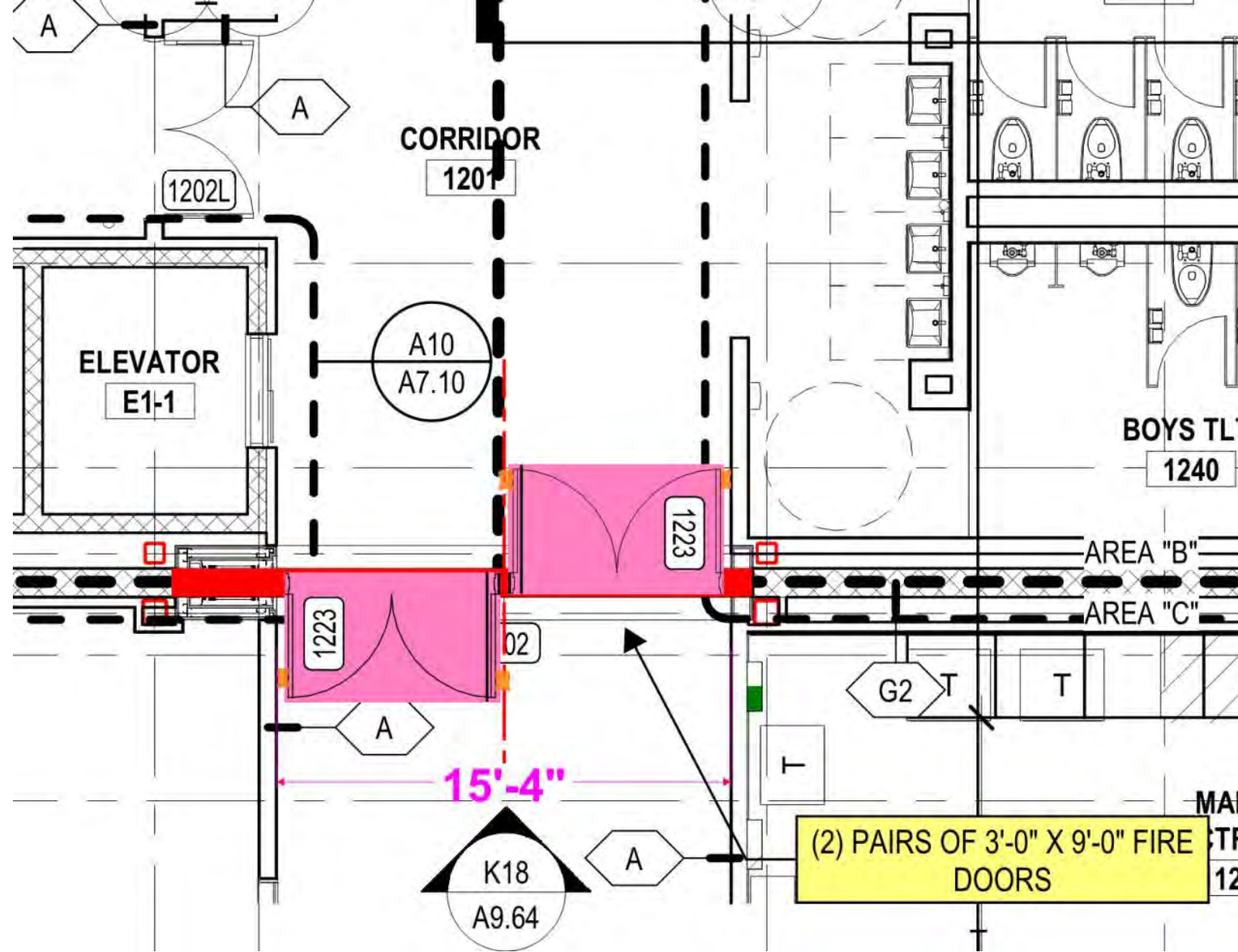


Provide swinging full-height fire doors [(2) pairs @ 4' w x 9' tall] ILO  
"Won-Door" sliding fire door (3 levels)

(\$66,932)

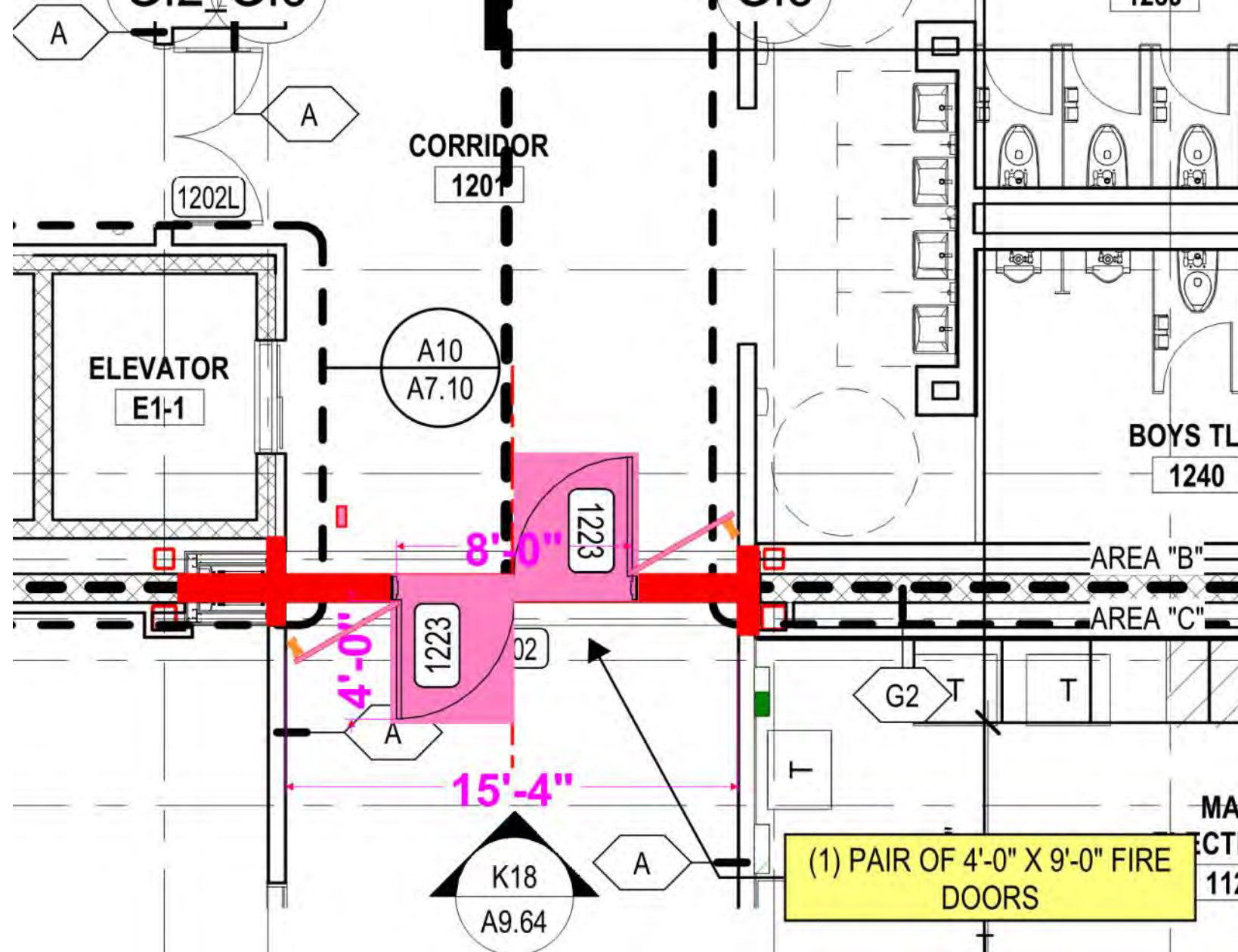
# VE LIST: A04- ITEM 19

## 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)
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VE LIST: A04-  
ITEM 19

OPTION 2

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)
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# VE LIST: A05



A05		Provide narrow vision lites at all Classroom doors ILO half-glass door lites.	(\$16,932)
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# VE LIST: A06



A06	Delete blackout shades from exterior windows - provide light-filtering fabric shades only	(\$22,100)
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# VE LIST: ITEM 38



**Item 38**

A1.13 – "change wording of divider curtain to partition" , i.e. Provide Hard Divider partition ILO fabric/mesh curtain as specified.sensor edge, STC 49

**\$60,844**



# ESTIMATED CONSTRUCTION COST COMPARISON

	SD PHASE (FONTAINE BROS., INC.)	DD PHASE PM&C COST ESTIMATORS	DD PHASE FONTAINE BROS. INC. (CM)
AREA (GSF)	167,352	167,352	167,352
BUILDING	\$47,191,265	\$50,673,892	\$50,767,822
SITE WORK & DEMO	\$10,956,995	\$12,104,861	\$12,554,970
MARK-UPS	\$21,344,403	\$16,073,239	\$16,157,650
TOTAL	\$79,492,663	\$78,851,992	\$79,480,442
Unit Cost (\$/SF)	\$475	\$471	\$475





*Thank You!*