

MEETING MINUTES



MANAGEMENT
PARTNERS, LLC

Project: Manchester Memorial Elementary School
Subject: School Building Committee/School Committee Meeting
Location: Manchester MS/HS – Library
Distribution: Attendees, Project File

Project No: MP17-114
Meeting Date: 11/13/2018
Time: 7:00 PM
Prepared By: C. Shefferman

Present	Name	Affiliation	Present	Name	Affiliation
	Caroline Weld *	SBC Co-Chair	✓	Jim LaPosta	JCJ
✓	Ann Cameron *	SBC Co-Chair	✓	Debi McDonald	JCJ
✓	Pam Beaudoin *	Superintendent	✓	Lauren Braren	JCJ
✓	Avi Urbas *	Dir. of Fin. & Ops		Emily Czarnecki	JCJ
✓	Alva Ingaharro *	Essex		Mike Burton	DWMP
✓	John Willis *	Principal MMES	✓	Steven Brown	DWMP
✓	Jay Pagliarulo	Dir. of Facilities	✓	Christina Shefferman	DWMP
✓	Andy Oldeman *	Man. Fin. Comm.	✓	Jon Rich	WT Rich
✓	Lisa O'Donnell *	Essex B.O.S.	✓	Alex Corbett	WT Rich
✓	Remko Brueker *	Manchester			
✓	Adam Zaiger *	Manchester			
	Tyler Virden *	Essex			
✓	George Scharfe *	Manchester			
✓	Gordon Brewster *	Manchester			
✓	Charlie Hay *	Essex			
✓	Sarah Creighton *	Manchester			
	Maggie Tomaiolo *	Essex			
✓	Jake Foster *	Essex			

* SBC Voting
Member

Action Items:

33.3.6 DWMP
33.5.1 JCJ
33.5.2 JCJ
33.6 A.Urbas

Revise Contract
Check with engineer mechanical sound requirements
Send LEED Scorecard
Review F&S Funds with Owner Legal Counsel

PROJECT MANAGERS
ARCHITECTS

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

www.doreandwhittier.com

Item No.	Description	Action
33.1	<u>Call to Order:</u> 7:02 pm meeting was called to order by the SBC Co-Chair A. Cameron with 14 of 17 voting members in attendance. S. Brown of DWMP notes the meeting will follow the agenda that was provided to the SBC prior to the meeting via Dropbox.	Record
33.2	<u>Previous Topics & Approval of September 26, 2018 Meeting Minutes:</u> A motion to approve the 9/26/2018 meeting minutes as submitted made by J. Foster and seconded by A. Ingaharro. Discussion: None. Vote: All in favor: Motion passes, minutes approved.	Record
33.3.1	<u>Invoices and Commitments for Approval:</u> A motion was made by G. Scharfe and seconded by A. Ingaharro to approve Minuteman invoice no. 89535 in the amount of \$7,093.58. Discussion: None. Vote: All in favor, unanimous to approve.	Record
33.3.2	<u>Invoices and Commitments for Approval:</u> A motion was made by G. Scharfe and seconded by A. Oldeman to approve Minuteman invoice no. 89538 in the amount of \$315.00. Discussion: None. Vote: All in favor, unanimous to approve.	Record
33.3.3	<u>Invoices and Commitments for Approval:</u> A motion was made by G. Scharfe and seconded by L. O'Donnell to approve WT Rich preconstruction invoice no. 2 in the amount of \$5,000.00. Discussion: None. Vote: All in favor, unanimous to approve.	Record
33.3.4	<u>Invoices and Commitments for Approval:</u> A motion was made by G. Scharfe and seconded by J. Foster to approve the Project Scope and Budget MSBA approval and submission. Discussion: S. Brown states that following the submission of the SD package, the project team met with the MSBA and received approval of the PS&B. The PS&B includes many exhibits ranging from project budget, schedule, construction estimate, alternate drawings, cash flow, project site, FF&E, etc. The PS&B documents are available on the project dropbox to review. A. Ingaharro asks whether the submission requires any insurance changes? S. Brown responds that the MSBA has guidelines and requirements that are followed. Vote: All in favor, unanimous to approve.	Record
33.3.5	<u>Invoices and Commitments for Approval-JCJ PM Staffing Change:</u> J. Laposta formally introduces Debi McDonald from JCJ as the new PM for the MMES project. D. McDonald will replace D. Ruiz. The MSBA requires a notification, staffing plan, and resume for any staff change on MSBA projects. D. McDonalds resume, JCJ staff change letter, and org chart are attached to the meeting minute backup for reference. A motion was made by L. O'Donnell and seconded by A. Ingaharro to approve the JCJ PM staff change to D. McDonald. Vote: All in favor, unanimous to approve.	Record
33.3.6	<u>Invoices and Commitments for Approval-DWMP DD Closeout Contract:</u> S. Brown states DWMP's contract amendment #2 for DD through closeout phases in the amount of \$1,918,276.00 is attached in the agenda packet for review. Following the town vote approvals both in Manchester and Essex, this contract will allow DWMP to proceed through the end of the project. The amendment/contract was first presented to the SBC and reviewed by the contract sub-committee back in June. A. Urbas states he would like one last cursory review since town approval occurred last week. A. Zaiger asks whether the project completion date of September 2021 includes closeout and punchlist items? S. Brown	DWMP

	<p>responds that DWMP is required by the MSBA to closeout many documents at the end of the project following substantial completion. Closeout exercises can take anywhere from 12-16 months. A motion was made by L. O'Donnell and seconded by A. Oldeman to approve DWMP DD Closeout contract amendment in the amount of \$1,918,276.00 such that the amendment be changed to state project substantial completion of October 29, 2021. Execution copies of the amendment will include a project schedule which includes activities beyond the substantial completion date. Vote: All in favor, unanimous to approve.</p>	
33.3.7	<p><u>Invoices and Commitments for Approval-JCJ DD Closeout Contract:</u> J. LaPosta states JCJ's contract amendment #3 for DD-Closeout phases in the amount of \$4,622,500.00 is attached in the meeting packet for review. A full backup of the contract can be found on the project dropbox. A motion was made by A. Zaiger and seconded by A. Ingaharro to approve JCJ DD-Closeout Contract in the amount of \$4,622,500.00.</p> <p>Discussion:</p> <ul style="list-style-type: none"> ➤ JCJ DD-Closeout contract was also initially reviewed and discussed back in June with the SBC and contract sub-committee. ➤ S. Creighton asks if JCJ fails to meet the dates needed by each MSBA milestone, how will it affect the project schedule and how will JCJ plan to make up time lost. D. McDonald responds that each milestone submission cannot be missed. The contract is not based on time but completing dates and requirements. ➤ DD accounts for 30% of design of the project. This includes the framework, structure, systems, scope, etc. ➤ Concern that there is only 6 SBC meetings schedule through the DD phase. JCJ states that subcommittee meetings will help the approval and design process through the DD phase. ➤ R. Brueker states he has concern not enough time for VE exercise in DD phase. J. Rich states that the VE exercise is different in DD phase. The VE list was developed in SD phase, so not starting from scratch. ➤ A. Oldeman ask what fundamental design decisions will be made in DD? JCJ team responds decisions include materials, programming, partitions in admin spaces, coves, etc. Square footage, footprint, layouts cannot be changed, locked in at SD phase. ➤ Overall SBC wants to make sure the VE process is exercised throughout the DD phase. The SBC felt at the end of SD, many items expected to proceed were cut do to cost. <p>Vote: All in favor, unanimous to approve.</p>	Record
33.3.8	<p><u>Invoices and Commitments for Approval-WT Rich/CM Owner Agreement:</u> A motion was made by G. Scharfe and seconded by A. Zaiger to approve WT Rich/CM Owner agreement. Discussion: J. Rich states the agreement was originally published in the RFP for CM's. Small edits were made, and a full copy can be found on the project dropbox. The CM Owner Agreement is a no cost agreement, with exception of the fee % which is based on the GMP. The fee is 2% of the final GMP amount as submitted by WT Rich in their CM proposal. The GMP is tracking below the \$44.5 million construction cost as published in the CM RFP and the General Conditions amount will be adjusted accordingly Vote: All in favor, unanimous to approve.</p>	Record
33.4	<p><u>Schedule Update:</u> D. McDonald reviews JCJ's DD workplan and schedule attached in the meeting packet.</p>	Record

	<ul style="list-style-type: none"> ➤ Yellow line indicates phases ➤ Green line indicates pricing ➤ Blue diamond indicates meetings ➤ Light yellow line shows early packages, site planning, etc. ➤ Re-establishing sub-committees today ➤ GGD/MEP sub-committee to meet next week <p>S. Brown reviews DWMP project timeline attached in meeting presentation. Timeline includes next steps in DD, and overall DD process.</p>	
33.5.1	<p><u>Design Update:</u> JCJ reviews design update slides. The slides include high level of what was approved in SD phase. In DD phase design decisions include mechanical chases, interior elevation, store fronts, layout of classrooms, reflected ceiling plans, lighting layouts, gym stage arrangement, kitchen refinements, server layout, media center layout, hub layout, corridor layout, etc. L. Braren reminds the SBC that at SD decisions made and voted upon include flat roofs and to help with the net to zero sf ratio, 20 extra sf was expanded into the corridors. The massing plans indicate the reduction of 4 prek to 2 prek classrooms, flat roof on the gym, removal of the screens on the mechanical roof units, and reduction of window overhangs on the front of the building. R. Brueker asks if L. Braren could present the SBC with A, B, and C options of typical classrooms and other design layouts to help make decisions effectively. JCJ to present options to SBC for design decisions that need to be made. Further exterior massing plans were presented. R. Brueker states he felt the gym doesn't have the same skin as the rest of the building. JCJ to present options to design sub-committee for further discussion that are within budget. P. Beaudoin asks whether mechanical screens can be added later to the units after the project is complete. J. Rich states you would need to add structural steel to the roof to support the screen if added later. C. Hay asks that the project team reviews with engineer whether acoustically screens are required since the school is so close to the neighbors. J. Willis states his concern that there is no storage space shown. L. Braren states in the DD phase chases and closets will be drawn and carved out of spaces. Will be hard to add storage rooms considering already locked in sf. Scope creep can occur when adding storage rooms, doors, frames, hardware, lighting, etc, all adds. Room casework to be evaluated for storage.</p>	JCJ
33.5.2	<p><u>Design Update-Sub-Committee's:</u> The SBC reviewed the sub-committee lists.</p> <ul style="list-style-type: none"> ➤ Design: G. Brewster, A. Oldeman, R. Breuker, J. Willis, C. Hay, P. Beaudoin (R. Breuker Team Leader) ➤ MEP: A. Oldeman, S. Creighton, J. Pagliarulo, S. Hunt, G. Scharfe, A. Urbas (A. Urbas Team Leader) ➤ Education: J. Foster, J. Willis, M. Tomaiolo, Julie, Allison, P. Beaudoin (P. Beaudoin Team Leader) ➤ Site: L. O'Donnell, S. Creighton, A. Zaiger, A. Urbas (L. O'Donnell Team Leader) ➤ LEED: T. Virden, S. Creighton, R. Breuker (S. Creighton Team Leader) <p>D. McDonald to send LEED checklist to SBC that was submitted as part of the SD package.</p>	JCJ
33.6	<p><u>Budget Update:</u> S. Brown states after completing Feasibility and Schematic Design phases, the budget remaining was \$22,173. A. Urbas to review with district legal counsel whether the funds can be transferred to the later phases of the project or returned to the District's general fund.</p>	A.Urbas

33.7	<u>Other Topics Not Reasonably Anticipated (48 hours prior to meeting):</u> J. Rich introduces A. Corbett from WT Rich to SBC. A. Corbett will be joining the team during the DD and CD phases of the project.	Record
33.8	<u>Public Comments:</u> None.	Record
33.9	<u>Adjourn:</u> A motion was made by G. Scharfe and seconded by J. Foster to adjourn the meeting. Discussion: None. Vote: Unanimous to approve. Meeting adjourned at 8:51 pm.	Record

Attached:

SBC Meeting Agenda, Sign In Sheet, SBC Meeting No. 32 9/26/18 Meeting Minutes, Minuteman Invoices, JCJ Staffing Plan, D. McDonald Resume, WT Rich Precon Invoice No. 2, DWMP DD-Closeout Contract, JCJ DD-Closeout Contract, WT Rich CM/Owner Agreement, JCJ Workplan, JCJ Schedule, JCJ Design Presentation, DWMP Meeting Presentation

DORE AND WHITTIER MANAGEMENT PARTNERS, LLC.



Christina Shefferman
Assistant Project Manager
Cc: Attendees, File

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes.

AGENDA

Project: Manchester Memorial Elementary School
Subject: School Building Committee Meeting
Location: Manchester MS/HS – Library
Distribution: Attendees, Project File

Project No: MP17-114
Meeting Date: 11/13/2018
Time: 7:00 PM
Prepared By: C.Shefferman



1. Call to Order & Intro
 - Annie/Caroline Summarize Local Approvals Process
2. Previous Topics & Approval of September 26, 2018 Meeting Minutes
3. Invoices and Commitments for Approval
 - Minuteman Press Invoice No. 89535 in the amount of \$7,093.58 (invoice attached).
 - Minuteman Press Invoice No. 89538 in the amount of \$315.00 (invoice attached).
 - WT Rich Precon Invoice No. 2 in the amount of \$5,000.00 (invoice attached).
 - MSBA Project Scope and Budget
 - JCJ PM Staffing Change
 - DWMP DD-Closeout Contract
 - JCJ DD-Closeout Contract
 - WT Rich CM/Owner Agreement
4. Schedule Update
 - JCJ Workplan review/introduction and lessons learned discussion
 - DWMP overall schedule review
5. Design Update
6. Budget Update
7. Other Topics Not Reasonably Anticipated 48 hours prior to Meeting
8. Public Comments
9. Next Meetings
10. Adjourn

PROJECT MANAGERS
ARCHITECTS

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

www.doreandwhittier.com



Manchester Essex Regional School District
School Building Committee

Meeting Date: 33
Meeting No. 11/13/18



Member name	Town/Affiliation	email contact	Signature
** Caroline Weld	SBC Co-Chair -Manchester	weldc1@mersd.org	—
** Ann Cameron	SBC Co-Chair-Essex	cameron@mersd.org	<i>Ann Cameron</i>
* Alva Ingaharro	School Comm. Member/Essex	alvai@comcast.net	<i>Alva Ingaharro</i>
* Pam Beaudoin	Superintendent of Schools	beaudoinp@mersd.org	<i>Pam Beaudoin</i>
* Avi Urbas	Dir. Of Finance & Operations	urbasa@mersd.org	<i>Avi Urbas</i>
* John Willis	Principal MMES	willisj@mersd.org	<i>John Willis</i>
Jay Pagliarulo	Facilities Director	pagliaruloj@mersd.org	<i>Jay Pagliarulo</i>
* Andy Oldeman	Manchester Finance Comm	aoldeman@smma.com oldemana@mersd.org	<i>Andy Oldeman</i>
* Lisa O'Donnell	Essex Board of Selectman	lisaengineer@comcast.net odonnelll@mersd.org	<i>Lisa O'Donnell</i>
* Remko Brueker	Manchester	remko@breukerdesign.com breukerr@mersd.org	PRESENT
* Adam Zaiger	Manchester	azaiger@choate.com zaigera@mersd.org	<i>Adam Zaiger</i>
* Tyler Virden	Essex	tyler@windover.com virdent@mersd.org	<i>Tyler Virden</i>
* George Scharfe	Manchester	gscharfe@johnpenney.com scharfeq@mersd.org	<i>George Scharfe</i>
* Gordon Brewster	Manchester	gbrewster@smma.com brewsterg@mersd.org	<i>Gordon Brewster</i>
* Charlie Hay	Essex	chay@tappe.com sarahhammondcreighton@gmail.com creightons@mersd.org	<i>Charlie Hay</i>
* Sarah Creighton	Manchester	creightons@mersd.org	<i>Sarah Creighton</i>
* Maggie Tomaiolo	Essex	tomaolom@mersd.org	<i>Maggie Tomaiolo</i>
* Jake Foster	Essex	fosterig@verizon.net	<i>J Foster</i>
Mike Burton	DWMP	mburton@doreandwhittier.com	<i>Mike Burton</i>
Steve Brown	DWMP	sbrown@doreandwhittier.com	<i>Steve Brown</i>
Christina Shefferman	DWMP	cshefferman@doreandwhittier.com	<i>Christina Shefferman</i>
Jim LePosta	JCJ	jlaposta@jci.com	<i>Jim LePosta</i>
Debi McDonald	JCJ	dmcDonald@jci.com	<i>Debi McDonald</i>
Lauren Braren	JCJ	lbraren@jci.com	<i>Lauren Braren</i>
Emily Czarnecki	JCJ	eczarnecki@jci.com	<i>Emily Czarnecki</i>
Jon Rich	WT Rich	jonrich@wtrich.com	<i>Jon Rich</i>

ALEX CORBET WT RICH

acorbet@whtrich.com

alex corbet

** Chair/Co-Chair

*Voting Member

MEETING MINUTES



Project: Manchester Memorial Elementary School
Subject: School Building Committee/School Committee Meeting
Location: Manchester MS/HS – Library
Distribution: Attendees, Project File

Project No: MP17-114
Meeting Date: 9/26/2018
Time: 6:30 PM
Prepared By: C. Shefferman

Present	Name	Affiliation	Present	Name	Affiliation
✓	Caroline Weld *	SBC Co-Chair	✓	Jim LaPosta	JCJ
✓	Ann Cameron *	SBC Co-Chair	✓	Debi McDonald	JCJ
✓	Pam Beaudoin *	Superintendent		Lauren Braren	JCJ
✓	Avi Urbas *	Dir. of Fin. & Ops		Emily Czarnecki	JCJ
✓	Alva Ingaharro *	Essex		Mike Burton	DWMP
	John Willis *	Principal MMES	✓	Steven Brown	DWMP
✓	Jay Pagliarulo	Dir. of Facilities	✓	Christina Shefferman	DWMP
✓	Andy Oldeman *	Man. Fin. Comm.	✓	Jon Rich	WT Rich
✓	Lisa O'Donnell *	Essex B.O.S.			
✓	Remko Brueker *	Manchester			
	Adam Zaiger *	Manchester			
✓	Tyler Virden *	Essex			
	George Scharfe *	Manchester			
✓	Gordon Brewster *	Manchester			
✓	Charlie Hay *	Essex			
✓	Sarah Creighton *	Manchester			
	Maggie Tomaiolo *	Essex			
✓	Jake Foster *	Essex			

* SBC Voting
Member

PROJECT MANAGERS
ARCHITECTS

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978.499.2999 ph
978.499.2944 fax

www.doreandwhittier.com

Item No.	Description	Action
32.1	<u>Call to Order</u> : 6:46 pm meeting was called to order by the SBC Co-Chair A. Cameron with 11 of 17 voting members in attendance. S. Brown of DWMP notes the meeting will follow the agenda that was provided to the SBC prior to the meeting via Dropbox.	Record
32.2	<u>Previous Topics & Approval of June 26, 2018 Meeting Minutes</u> : A motion to approve the 8/7/2018 meeting minutes as submitted made by J. Foster and seconded by A. Ingaharro. Discussion: None. Vote: All in favor: Motion passes, minutes approved.	Record
32.3	<u>Project Scope and Budget Update</u> : S. Brown provides the SBC with a PS&B meeting update with the MSBA. MSBA approved the PS&B for the project which includes the budget, eligible costs, etc. Next is waiting to hear if the project passes at both Town of Manchester and Town of Essex town meetings, and then ballot vote in both towns.	Record
32.4	<u>PAC Group Update</u> : The team administration provided the SBC with a PAC update. Currently signs, banners and booklets about the building are in production through the PAC group. The PAC has spoken to community members at Essex Town Hall, PTO, School Counsel, Chamber of Commerce, Merchants Group, Open House, and other school functions handing out flyers, etc. The PAC has created a facebook page dedicated to the project.	Record
32.5	<u>Other Topics Not Reasonably Anticipated (48 hours prior to meeting)</u> : J. Laposta introduces the new design project manager for JCJ, D. McDonald. S. Creighton asks that any project team change be addressed with the owner. S. Creighton's concerns include change to employee rates and qualifications based on contract with the owner.	Record
32.6	<u>Public Comments</u> : None.	Record
32.7	<u>Adjourn</u> : A motion was made by S. Creighton and seconded by A. Ingaharro to adjourn the meeting. Discussion: None. Vote: Unanimous to approve. Meeting adjourned at 7:00 pm.	Record

Attached:

SBC Meeting Agenda, Sign In Sheet, SBC Meeting No. 31 8/7/18 Meeting Minutes

DORE AND WHITTIER MANAGEMENT PARTNERS, LLC.



Christina Shefferman
Assistant Project Manager
Cc: Attendees, File

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes.



Minuteman Press of Beverly
409 Cabot Street
Beverly, MA 01915
Phone: (978) 927-8757
Fax: (978) 927-1267
www.minutemanbeverly.com
order@minutemanbeverly.com

**** INVOICE ****

Invoice Number 89538
Invoice Date 10/11/2018
P.O. Number Avi Urbus

Bill to: Manchester Essex Regional School District
PO Box 1407
36 Lincoln Street
Manchester, Ma 01944

Ship to: Manchester Essex Regional School District
PO Box 1407
36 Lincoln Street
Manchester, Ma 01944

Phone: 978-526-4919 ext 1009

Phone: 978-526-4919 ext 1009

250 Memorial School Building Project Overview (125 Manchester / 125 Essex) (Job 81766)	\$315.00
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Sub Total	\$315.00
Invoice Total	\$315.00

Balance Due	\$315.00
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Tax Exempt ID	04-3519780
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Mem Bldng
104

Salesperson: Dave/CapeAnn
50% Deposit, COD

Please make checks payable to

Minuteman Press - BEVERLY
409 Cabot Street, Beverly, MA 01915

2.0000% interest per month on past-due invoices.

All Minuteman Press shops are independently owned.



Minuteman Press of Beverly
409 Cabot Street
Beverly, MA 01915
Phone: (978) 927-8757
Fax: (978) 927-1267
www.minutemanbeverly.com
order@minutemanbeverly.com

****INVOICE****

Invoice Number 89535
Invoice Date 10/10/2018
P.O. Number Avi Urbus

Bill to: Manchester Essex Regional School District
PO Box 1407
36 Lincoln Street
Manchester, Ma 01944

Phone: 978-526-4919 ext 1009

Ship to: Manchester Essex Regional School District
PO Box 1407
36 Lincoln Street
Manchester, Ma 01944

Phone: 978-526-4919 ext 1009

5,233 Memorial School Building Project Overview (Job 81673)	\$7,093.58
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Sub Total	\$7,093.58
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Invoice Total	\$7,093.58
---------------	------------

Balance Due	\$7,093.58
--------------------	-------------------

Tax Exempt ID	04-3519780
----------------------	-------------------

Mem Bldg
104

Salesperson: Dave/CapeAnn

50% Deposit, COD

Please make checks payable to

Minuteman Press - BEVERLY
409 Cabot Street, Beverly, MA 01915

2.0000% interest per month on past-due invoices.

All Minuteman Press shops are independently owned.



INVOICE

W.T. Rich Company, Inc.
29 Crafts Street, Suite 300
Newton, MA 02458
P:617-467-6010
F:617-467-6011
wtrich@wtrich.com

DATE: NOVEMBER 10, 2018
INVOICE # 201802-02

TO Manchester Essex Regional School District
36 Lincoln Street
Manchester-by-the-Sea, MA 01944

CONTACT PERSON	PROJECT	PAYMENT TERMS	DUE DATE
Jonathan Rich, CEO	Manchester Memorial Elementary School	Net 30 Days	November 10, 2018

QTY	DESCRIPTION	UNIT PRICE	LINE TOTAL
Lump Sum	<u>PROGRESS INVOICE #002: 7/27/2018 – 11/6/2018</u> Preconstruction Services for Manchester Memorial Elementary School for Schematic Design Phase	\$5,000.00	\$5,000.00
	<i>NOTE: This is Final Payment towards SD services, which will have a total lump sum cost of \$20,000</i>		
SUBTOTAL			\$5,000.00
SALES TAX			\$0.00
TOTAL			<u>\$5,000.00</u>

Make all checks payable to W.T. Rich Company, Inc.

Thank you for your business!

ATTACHMENT F

CONTRACT FOR OPM SERVICES AMENDMENT NO. TWO

WHEREAS, the Manchester Essex Regional School District ("Owner") and Dore and Whittier Management Partners, LLC, (the "Owner's Project Manager") (collectively, the "Parties") entered into a Contract for OPM Services for the Manchester Memorial Elementary School Project (Project Number 201506980010) at the Manchester Memorial Elementary School on March 22, 2017 "Contract"; and

WHEREAS, effective as of June 26th, 2018, the Parties wish to amend the Contract:

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

1. The Owner hereby authorizes the Owner's Project Manager to perform services for the Construction Document, Bidding, Construction, and the Final Completion Phases of the Project, pursuant to the terms and conditions set forth in the Contract, as amended.
2. For the performance of services required under the Contract, as amended, the OPM shall be compensated by the Owner in accordance with the following lump sum amounts to be billed as per the breakdown by project phase.
3. Project Representative's hours shall be 40 hours per week.

Description	Original Contract	Previous Amendments	Amount of this Amendment	After this Amendment
Feasibility Study Phase	\$ 105,000.00	\$ 7,040.00	\$ -	\$ 112,040.00
Schematic Design Phase	\$ 50,000.00	\$ -	\$ -	\$ 50,000.00
Design Development	\$ -		\$ 102,361.00	\$ 102,361.00
Construction Documents	\$ -		\$ 87,864.00	\$ 87,864.00
Bidding	\$ -		\$ 58,576.00	\$ 58,576.00
Construction	\$ -		\$ 1,567,114.00	\$ 1,567,114.00
Closeout	\$ -		\$ 102,361.00	\$ 102,361.00
Owner Testing	\$ -	\$ -	\$ -	\$ -
				\$ -
Total Fee	\$ 155,000.00	\$ 7,040.00	\$ 1,918,276.00	\$ 2,080,316.00

Total Amount for this amendment is One Million Nine Hundred Eighteen Thousand Two Hundred and Seventy Six Dollars (\$1,918,276.00)

This Amendment is a result of the following:

To authorize Dore and Whittier Management Partners to proceed into the Construction Document, Bidding, Construction, and closeout on the Manchester Memorial Elementary School Project, as outlined in their contract.

3. The Construction Budget shall be as follows:

Original Budget:	\$43,000,000
Amended Budget	\$

4. The Project Schedule shall be as follows:

Original Schedule:	Project Completion September 2021
Amended Schedule	

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

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

OWNER

(print name)

(print title)

By _____

(signature)

Date _____

OPM

Mike Burton

(print name)

PARTNER

(print title)

By _____

(signature)

Date 6/26/18

THE SCOPE OF SERVICES ADDED BY THIS AMENDMENT IS FOR A CM AT RISK PROJECT ONLY. THE SCOPE OF SERVICES SPECIFIED BELOW INCLUDES ARTICLES 8.1, 8.3, 8.4, 8.5, 8.6, 8.7 AND 8.8. THE SERVICES SPECIFIED IN ARTICLE 8.1 HEREIN ARE INTENDED TO SUPPLEMENT (OR BE ADDITIVE) AND NOT SUPERCEDE ARTICLE 8.1 IN THE ORIGINAL STANDARD CONTRACT BETWEEN THE PARTIES.

ARTICLE 8: BASIC SERVICES

In addition to those Basic Services included in the original Contract between the Parties, the Owner's Project Manager shall perform the following Basic Services during the Design Development/Construction Documents/Bidding/Construction/Completion Phases:

8.1 Project Management

8.1.1 A draft of the communication plan shall be submitted to the Owner for approval within 30 days of the Approval to proceed to Design Development/Construction Documents/Bidding Phase and be further updated (a) as needed to include the award of a construction contract and (b) no later than 30 days after Approval to proceed to the Construction Phase. The Owner's Project Manager shall include the Designer in its distribution of the Project Budget, Schedule, Monthly Progress Report and other reports as appropriate and as outlined in the Communications Plan.

8.1.1.2 The Owner's Project Manager shall assist the Owner in the preparation of all information, material, documentation, and reports that may be required or requested by the Authority, including without limitation, documentation related to incentive reimbursement percentage points that may be awarded to the Owner by the Authority, requests for reimbursement, and audit materials.

8.1.1.3 The Owner's Project Manager shall prepare agendas for and attend school building committee meetings, attend meetings with other representatives of the Owner, municipal administration and the school department, and attend neighborhood meetings relating to the Project. The Owner's Project Manager shall take minutes of all of the above-referenced meetings and promptly distribute minutes of these meetings to the Owner. The Owner's Project Manager shall be responsible for taking minutes of all of the above-referenced meetings and distributing them to the Owner until such time as the Owner has given the CM at Risk a Notice to Proceed pursuant to an Owner-CM at Risk contract in which case, the CM at Risk shall be responsible for taking minutes. On behalf of the Owner, the Owner's Project Manager shall review the minutes prepared by the CM at Risk for accuracy and completeness and shall advise the Owner accordingly.

8.1.1.4 The Owner's Project Manager shall review all applications for payments, requisitions and invoices relating to the Project as submitted by the Designer, CM at Risk, equipment vendors and all other prime contractors and suppliers and make recommendations to the Owner relative to amounts due.

8.1.2 Project Control

During the Design Development/Construction Documents/Bidding Phase, the Owner's Project Manager shall monitor and report to the Owner and the Authority

any changes to the Project Budget and Schedule established in the Owner-Authority Project Scope and Budget Agreement or the Project Funding Agreement.

8.1.2.1 Project Budget

The Owner's Project Manager will use the baseline Project Budget as the Project control against which all Designer estimates, contractor bids, Guaranteed Maximum Price (if applicable), and other cost information will be measured. The Owner's Project Manager shall maintain and update the baseline Project Budget throughout the term of this Contract. The Owner's Project Manager shall report any variances to the baseline Project Budget as part of the Monthly Progress Report.

The Owner's Project Manager shall prepare revisions to the baseline Project Budget, as needed, and submit them to the Owner for approval.

8.1.2.2 Cost Estimating

The Owner's Project Manager shall prepare detailed independent cost estimates as specified in each Design phase (design development and construction documents), until such time as the CM at Risk has been given a Notice to Proceed. The Owner's Project Manager shall record and track the cost estimates at each Design phase and submit this information with each design submittal due to the Authority using the Authority's Cost Estimate Comparison Spreadsheet. If the Owner requires the Owner's Project Manager to prepare an independent cost estimate, the Owner's Project Manager shall compare its cost estimate to that prepared by the Designer to identify and notify the Owner of any variances.

In the event that the cost as estimated by the Designer exceeds the construction cost in the Project Budget at any of the Design phases, the Owner's Project Manager shall consult with the Designer and the CM at Risk and recommend to the Owner appropriate revisions to the scope of work.

The Owner's Project Manager shall provide cost estimating services, as may be required, to develop cash flows.

The Owner's Project Manager shall review all construction cost estimates (design development and construction documents) provided by the Designer and/or the CM at Risk; provide advice, consultation, guidance and assistance to the Owner concerning said construction cost estimates; and work with the Designer and the CM at Risk as necessary to reconcile any variances in the construction cost estimates provided by each of them.

8.1.2.3 Project Schedule

The Owner's Project Manager shall submit this detailed baseline Project Schedule to the Owner and the Authority within 30 days of Approval to proceed to the Design Development/Construction Documents/Bidding Phase. The Owner's Project Manager shall maintain and update the Project Schedule

throughout the term of this Contract. The Owner's Project Manager shall assess the actual progress of the Project relative to the baseline Project Schedule and report any variances from the baseline Project Schedule as part of the Monthly Progress Report.

In the event that actual progress of the Project varies from the baseline Project Schedule, the Owner's Project Manager shall consult with the Designer and the CM at Risk and make appropriate recommendations to the Owner relative to actions that should be taken by the Designer or the CM at Risk to achieve the baseline Project Schedule and/or recommend revisions to the Project Schedule. The Owner's Project Manager shall not be responsible for delays caused by the Designer, CM at Risk, or Subcontractors, or the employees, agents or subconsultants of the Designer, CM at Risk, or Subcontractors.

The Owner's Project Manager shall prepare revisions to the Project Schedule, as needed, and submit them to the Owner for approval.

8.1.2.4 Construction Schedule

The CM at Risk shall be responsible for preparing and updating its construction schedule on a monthly basis. The Owner's Project Manager shall meet once each month with the CM at Risk, and Designer to review and update its schedule, develop the monthly progress information to support the CM at Risk's payment estimate, and monitor the CM at Risk's performance for compliance with its contract.

The Owner's Project Manager shall notify the Owner of and include in its Monthly Progress Report any significant changes or delays to the construction schedule. The Owner's Project Manager shall make appropriate recommendations to the Owner relative to the actions that should be taken by the CM at Risk and/or advise the Owner when liquidated damages, if included in the CM at Risk contract, are anticipated to be incurred.

8.1.3 Monthly Progress Report

The Owner's Project Manager shall submit to the Owner and the Authority no later than the twelfth day of each calendar month a written Monthly Progress Report summarizing activity during the preceding calendar month. The Monthly Progress Report shall be submitted in a format acceptable to the Authority and shall describe work performed by all project participants (OPM, Designer, CM at Risk) during the reporting period and work planned for the next reporting period. The report shall also address matters of schedule adherence (Project Schedule as well as individual completion percentages for design and construction), costs to date (updated Project Budget and actual expenses incurred), change orders and potential change orders, cash flow projections, CM at Risk's safety performance, Designer's QA/QC, CM at Risk's environmental compliance, community issues, Designer and CM at Risk's MBE/WBE activities, any issues that could result in additional time and/or additional costs and any anticipated problems/concerns together with recommended solutions.

8.1.4 Change Order and Claims Administration

The Owner's Project Manager shall review and coordinate its review with the Designer and make specific document and processing recommendations to the Owner, consistent with the General Laws and the construction contract documents, which minimize change order and claims processing costs and time. Services provided by the Owner's Project Manager shall include:

8.1.4.1 Change Order Administration

- 8.1.4.1.1 Review all CM at Risk proposals for change orders and supporting schedules for time extension requests. For change orders in excess of \$100,000, prepare independent cost estimate analysis with associated schedule impact.
- 8.1.4.1.2 Initiate, conduct, and document negotiations through a memorandum of negotiations with the CM at Risk.
- 8.1.4.1.3 For all change order requests by the CM at Risk, make recommendations to the Owner for their modification, acceptance or rejection and provide an analysis and recommendation regarding the cost.
- 8.1.4.1.4 Prepare and finalize any documentation required for processing change orders including a summary of the Owner's Project Manager's review of the reasonableness of the costs and documentation to support or reject the change.
- 8.1.4.1.5 Maintain a status report system for logging and tracking change orders, claims, and disputes to resolution. At a minimum, monthly reports shall include contract number, description of change order or claim, reason for change, date initiated, magnitude of estimated cost, actions required (identification of action parties and response dates) and status. This report shall be included in the Monthly Progress Report.

8.1.4.2 Claims and Disputes Management

- 8.1.4.2.1 Implement a claims management procedure consistent with the construction contract documents.
- 8.1.4.2.2 Analyze CM at Risk claims and propose recommendations to the Owner in support of the Owner's obligations under the claims article of the construction contract documents. Prepare responsive positions in coordination with the Owner, and obtain appropriate input from the Designer and/or CM at Risk.
- 8.1.4.2.3 In the event that a dispute arises between the CM at Risk, and/or any Subcontractors, and/or the Designer, including, but not necessarily limited to, disputes regarding the performance, quality, acceptability, fitness and rate of progress of the Project or the requirements of the Designer's contract or the CM at Risk's construction contract(s), the Owner's Project Manager shall report any such claims, disputes or other

matters in question relating to the performance by the CM at Risk, Subcontractor, Designer or vendor to the Owner and the Authority in writing as soon as reasonably possible.

- 8.1.4.2.4 The Owner's Project Manager shall take all reasonable efforts designed to resolve any such claims, disputes, or other matters in question.

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Design Development/Construction Documents/Bidding Phase

8.3 **CM at Risk Prequalification and Selection,**

8.3.1 General

When directed by the Owner, the Owner's Project Manager shall assist and advise the Owner in the selection of a Construction Manager at Risk ("CM at Risk") in accordance with the provisions of M.G.L. c. 149A §§5 and 6, the applicable regulations and procedures promulgated by the Inspector General, and all other applicable law.

The Owner's Project Manager shall serve as a member of the Owner's CM at Risk Prequalification Committee and CM at Risk Selection Committee, as required by M.G.L. c. 149A §§5 and 6, and shall provide advice and assistance to the Owner and to said committees in relation to the CM at Risk selection process in accordance with the provisions of M.G.L. c. 149 §§ 5 & 6, the applicable regulations and procedures promulgated by the Inspector General, and all other applicable law.

8.3.2 CM at Risk Prequalification, Public Notice, Solicitation and Advertisement

- 8.3.2.1 The Owner's Project Manager shall assist and advise the Owner in the proper administration and coordination of the CM at Risk prequalification process, including but not limited to the preparation of the request for qualifications ("RFQ") and the preparation of the public notice, solicitation, and advertisement for responses to the RFQ in accordance with the provisions of M.G.L. c. 149A, § 5, and the applicable regulations and procedures promulgated by the Inspector General.
- 8.3.2.2 The Owner's Project Manager shall assist and advise the Owner in preparing evaluation procedures and criteria for selecting the CM at Risk in accordance with the provisions of M.G.L. c. 149, §5.
- 8.3.2.3 The Owner's Project Manager shall assist and advise the Owner in preparing a specific description of the scope of services expected of the selected CM at Risk during the design, pre-construction, and construction phases of the project.
- 8.3.2.4 The Owner's Project Manager shall assist and advise the Owner in the preparation of the public notice, solicitation, and advertisement for the RFQ.

- 8.3.2.5 The Owner's Project Manager shall distribute the Request for Qualifications to responding CM at Risk firms.
- 8.3.2.6 The Owner's Project Manager shall assist and advise the Owner in reviewing all CM at Risk responses to the Request for Qualifications and make recommendations to the Owner regarding the selection of CM at Risk firms prequalified to submit a Statement of Qualifications for review by the Prequalification Committee.

8.3.3 Evaluation of CM at Risk Statements of Qualifications

- 8.3.3.1 As a member of the Owner's CM at Risk prequalification committee and on behalf of the Owner, the Owner's Project Manager shall review and evaluate in conjunction with the Prequalification Committee the Statements of Qualifications received from CM at Risk firms on the basis of the evaluation criteria established in the Request for Qualifications.
- 8.3.3.2 The Owner's Project Manager shall advise and assist, and make appropriate recommendations to, the Owner and the Prequalification Committee regarding the selection of qualified CM at Risk firms to receive a Request for Proposals ("RFP") from the Owner in accordance with the provisions of M.G.L. c. 149A, § 5(f) and the applicable regulations and procedures promulgated by the Inspector General.
- 8.3.3.3 Pursuant to G. L. c. 149A, §5(f), in the event that the Prequalification Committee is unable to identify a minimum of three (3) qualified CM at Risk firms, at the Owner's direction, the Owner's Project Manager shall assist and advise the Owner in re-advertising the Request for Qualifications or, in the alternative, at the direction of the Owner, assist and advise the Owner in procuring the project pursuant to M.G.L. c. 149, §§ 44A - 44J.

8.3.4 CM at Risk Request for Proposals ("RFP"), Issuance, Evaluation, Ranking

- 8.3.4.1 The Owner's Project Manager shall assist and advise the Owner in the proper administration and coordination of the request for proposals ("RFP") process, including, but not limited to, the preparation and issuance of the RFP; the evaluation of the technical and cost proposals; the selection and ranking of CM at Risk firms; review and analysis of cost proposals; non-fee negotiations; and record-keeping, in accordance with the provisions of M.G.L. c. 149, § 6 and the applicable regulations and procedures promulgated by the Inspector General.
- 8.3.4.2 As a member of the Owner's CM at Risk selection committee, the Owner's Project Manager shall review and evaluate the RFP's received from prequalified CM at Risk firms on the basis of the evaluation criteria included in the RFP.
- 8.3.4.3 The Owner's Project Manager shall coordinate the evaluation of the RFP's received on behalf of the Prequalification Committee and make recommendations regarding the evaluation and ranking of RFP's and the

conduct of interviews, if any, in accordance with the provisions of M.G.L. c. 149A, § 6(d), and the applicable regulations and procedures promulgated by the Inspector General.

- 8.3.4.4 If the proposal of the best qualified CM at Risk firm exceeds the budget established in the Project Scope and Budget Agreement or the Project Funding Agreement, as the case may be, the Owner's Project Manager shall consult with the Owner and Designer and make recommendations to the Owner in regard to maintaining the Project Budget which may include, consistent with Massachusetts public construction laws, reviewing and recommending the acceptance of alternatives, re-advertising for a CM at Risk, or seeking additional funding from the City/Town/Regional District.

8.3.5 Negotiations, Contract Award, Guaranteed Maximum Price

- 8.3.5.1 The Owner's Project Manager shall provide advice, consultation, guidance and assistance to the Owner and the CM at Risk Selection Committee in non-fee negotiations with the prequalified CM at Risk firms until the Selection Committee has reached an acceptable contract with one of said firms in accordance with M.G.L. c. 149A § 6(2)(e).
- 8.3.5.2 The Owner's Project Manager shall provide advice, consultation, guidance and assistance to the Owner in the preparation and execution of the Owner-CM at Risk contract.
- 8.3.5.3 The Owner's Project Manager shall obtain from the CM at Risk and maintain on file any required performance and payment bonds, including, but not limited to, those in the amount of the Guaranteed Maximum Price ("GMP") in accordance with M.G.L. c. 149A, §§ 5(a) & 7(b)(4) and those in the full amount of trade contracts in accordance with M.G.L. c. 149A, § 8; any required insurance certificates; and any other documents and certificates required by law or by the provisions of the Owner-CM at Risk contract.
- 8.3.5.4 The Owner's Project Manager shall provide advice, consultation, guidance and assistance to the Owner in negotiating amendments to the to the CM at Risk contract to incorporate the scope and cost of early delivery work in accordance with the provisions of M.G.L. 149A, §§5-8, and the applicable regulations and procedures promulgated by the Inspector General.
- 8.3.5.5 The Owner's Project Manager shall provide advice, consultation, guidance and assistance to the Owner in the negotiation of the GMP in accordance with M.G.L. c. 149A, §7, and the applicable regulations and procedures promulgated by the Inspector General. The OPM shall verify that the GMP is consistent with the requirements of the CM at Risk contract and that the CM at Risk has implemented an adequate cost control system to provide verification that all costs incurred within the GMP are true and actual in accordance with the CM at Risk contract.
- 8.3.5.6 The Owner's Project Manager shall provide the CM at Risk, Designer, Owner and the Authority with required copies of executed construction contract documents.

- 8.3.5.7 Once the CM at Risk has been given a Notice to Proceed and begins preparing meeting minutes on behalf of the Owner in accordance with Article 8.1.1.3, the Owner's Project Manager shall review the minutes prepared by the CM at Risk for accuracy and completeness and shall advise the Owner accordingly.
- 8.3.5.8 Pursuant to M.G.L. c. 149A, § 7(b)(4), in the event the Owner is unable to negotiate an acceptable GMP with a CM at Risk, at the direction of the Owner, the Owner's Project Manager shall provide advice, consultation, guidance and assistance to the Owner in negotiating with the next highest ranked proposer and, if directed by the Owner, in procuring the Project in accordance with Chapter 149, §§ 44A-44J.
- 8.3.5.9 The Owner's Project Manager shall assist and advise the Owner and the Designer in preparing and sending the Notice to Proceed to the Construction Manager at Risk

8.4 Design Development

8.4.1 General

During the Design Development Phase, the Owner's Project Manager shall be responsible for maintaining and updating the Project Budget and Schedule, oversight of both the Designer and CM at Risk, the review of all Designer submittals, coordination with the Authority's Commissioning Consultant, and, if the Owner has not yet contracted with a CM at Risk, the development of a construction cost estimate for comparison with the Designer's cost estimates. If the Owner has given the CM at Risk a Notice to Proceed pursuant to the Owner-CM at Risk contract, the Owner's Project Manager shall review any construction cost estimates provided by the Designer and/or the CM at Risk and provide such advice, consultation, guidance and assistance to the Owner concerning said construction cost estimates as is reasonable and necessary.

The Owner's Project Manager shall consult with the CM at Risk on the design of the Project and work together and in harmony with the CM at Risk and Designer in a manner consistent with the Owner's best interests to develop a design that conforms to provisions of the Project Scope and Budget Agreement and the Project Funding Agreement.

The Designer shall remain responsible for the design requirements and design criteria for the Project. Unless otherwise directed by the Owner, nothing in this section shall be construed as an assumption of duties or responsibilities of the Designer or CM at Risk by the Owner's Project Manager.

- 8.4.2 The Owner's Project Manager shall continue to oversee the activities and responsibilities of the Designer in the further development of the scope, schedule and budget including a general review of the Designer's detailed scaled plans, elevations and sections of all aspects of the design. The Owner's Project Manager shall:
 - a. Review and reconcile the construction cost estimates of the Designer and the CM at Risk. In the event that the Owner has not executed a contract with a CM at Risk by the end of the Design Development Phase, the Owner's

Project Manager shall prepare an independent construction cost estimate for comparison with the Designer's cost estimate.

- b. Work with the Owner, Designer and CM at Risk to update the Project Budget and Schedule.

8.4.3 The Owner's Project Manager shall monitor and coordinate the schedule, technical accuracy, efficiency, coordination, and constructability of the Project and cost-effectiveness of all designs, drawings, reports, estimates and other work furnished by the Designer, and make recommendations to the Owner when, in the opinion of the Owner's Project Manager, requirements of the Designer's contract with the Owner are not being fulfilled.

8.4.4 The Owner's Project Manager shall promptly review all Designer submissions and shall meet with the Designer and CM at Risk as necessary to discuss and resolve all issues with the Designer's submissions. The Owner's Project Manager shall review any recommendations made by the CM at Risk with respect to the drawings, specifications and other design documents produced by the Designer and shall meet with the Designer and the CM at Risk as necessary to discuss and resolve all issues raised by the CM at Risk's recommendations. Upon completion of its review, the Owner's Project Manager shall recommend that the Owner: 1) approve the submission as made; 2) approve that part of the submission that is acceptable and reject the remainder; 3) reject the submission; or 4) require the Designer to submit additional information or details in support of its submission.

8.4.5 The Owner's Project Manager shall coordinate the timely review of the design between the Designer, CM at Risk, and the Commissioning Consultant. The Owner's Project Manager shall be responsible for providing the necessary documents to the Commissioning Consultant for its review, distributing review comments made to the Designer, Owner, CM at Risk, and the Authority and coordinate the timely resolution and incorporation of the Commissioning Consultant's recommendations. The Owner's Project Manager shall not be responsible for the Commissioning Consultant's performance, but if the Owner's Project Manager becomes aware of any performance or lack of performance issues with the Commissioning Consultant, the Owner's Project Manager shall immediately notify the Owner and the Authority of such issues.

8.4.6 The Owner's Project Manager shall oversee the activities and responsibilities of the CM at Risk during design development in regard to constructability review, schedule development, cost estimates and other responsibilities set forth in the Owner-CM at Risk Contract and make recommendations to the Owner when, in the opinion of the Owner's Project Manager, requirements of the CM at Risk's contract with the Owner are not being fulfilled.

8.4.7 Early Delivery of Construction Bid Documents

During the Design Development Phase the Owner may request the Designer to prepare early bid packages of final Construction Documents for the site work, demolition, structural steel, excavation, and foundation work, and other elements of the work.

The Owner's Project Manager shall work with the Designer and CM at Risk to develop a schedule for the delivery of early bid packages of final Construction Documents for the site work, demolition, structural steel, excavation, and foundation work, and other elements of the work as directed. The Owner's Project Manager shall provide the resources necessary to support the timely and accurate completion of early bid packages.

The Owner's Project Manager shall assist the Owner in negotiating amendments to the Owner-CM at Risk Contract to incorporate the scope and cost of the early delivery work in accordance with M.G.L. c. 149A, §7.

8.5 Construction Documents

- 8.5.1 The Owner's Project Manager shall continue to oversee the activities and responsibilities of the Designer and CM at Risk during the preparation of complete construction specifications and drawings in order to maintain consistency with the Project Scope and Budget Agreement and the Project Funding Agreement.

The Owner's Project Manager shall continue to monitor the schedule of the Designer and CM at Risk.

- 8.5.2 The Owner's Project Manager shall meet with the Designer and CM at Risk as necessary to discuss and resolve all issues with the construction documents. The Owner's Project Manager shall monitor and review the performance of the CM at Risk in its review of the construction documents for, among other things, conciseness, clarity consistency, constructability, maintainability/operability, coordination among the trades, coordination between the specifications and drawings, bid-ability, compliance with M.G.L. c.149A for procurement, installation and construction, and sequence of construction and for quality, cost, and schedule improvements. The Owner's Project Manager shall review any recommendations made by the CM at Risk with respect to the construction documents produced by the Designer and shall meet with the Designer and the CM at Risk as necessary to discuss and resolve all issues raised by the CM at Risk's recommendations. The Owner's Project Manager shall:

- a. Review and reconcile the construction cost estimates of the Designer and the CM at Risk
- b. Provide advice, consultation and guidance to the Owner relative to value engineering recommendations and other recommendations made by the CM at Risk relative to the construction documents.
- c. Work with the Owner, Designer, and CM at Risk to update the construction budget and schedule.

- 8.5.3 The Owner's Project Manager shall provide advice, consultation and guidance to the Owner and the Designer relative to the Trade Contractor and Non-Trade Contractor prequalification and selection process pursuant to M.G.L. c. 149A § 8,

including participation as a member of the Owner's Prequalification Committee if directed by the Owner.

- 8.5.4 The Owner's Project Manager shall review the information provided by the CM at Risk on Trade and Non-Trade Contractor scope of work pursuant to M.G.L. c. 149A § 8, paying particular attention to the contract drawings and specifications prepared for Trade Contractors. The Owner's Project Manager shall fully understand the delineation of work as determined by the CM at Risk and the Designer between Trade and Non-Trade Contractors for the purpose of verifying the actual costs of such scopes of work.
- 8.5.6 The Owner's Project Manager's review of the construction documents shall also include, but not be limited to, any concerns of the Owner's Project Manager and/or the Owner relative to access, usable area, parking, utilities, anticipated noise sources during construction and identification of field offices, facilities, supplies and equipment.
- 8.5.7 The Owner's Project Manager shall coordinate the timely review of the construction documents by the Commissioning Consultant to determine that plans and specifications include the recommendations made during design development in regard to materials selection, installation and testing criteria in regard to commissioning and start-up and provide adequate information and allow sufficient time for functional and system testing.
- 8.5.8 The Owner's Project Manager shall monitor the schedule of the Designer, provide review and comment of the Designer's work product and make recommendations to the Owner when, in the opinion of the Owner's Project Manager, requirements of the Designer's contract with the Owner are not being fulfilled.
- 8.5.9 The Owner's Project Manager shall monitor the schedule of the CM at Risk, provide review and comment of CM at Risk's work product and make recommendations to the Owner when, in the opinion of the Owner's Project Manager, requirements of the CM at Risk's contract with the Owner are not being fulfilled.

8.6 Bidding Phase

8.6.1 General

The Owner's Project Manager shall provide advice, consultation, guidance and assistance to the Owner in the proper administration and coordination of the Trade Contractor prequalification and selection process and the Non-Trade Contractor selection process in accordance with the provisions of 149A, § 8, the applicable regulations and procedures promulgated by the Inspector General, and all other applicable law, including participation as a member of the Owner's Trade Contractor prequalification committee if directed by the Owner.

The Owner's Project Manager shall monitor the activities and responsibilities of the Designer and the CM at Risk in the Trade

Contractor prequalification and selection process and the Non-Trade Contractor selection process.

8.6.2 CM at Risk Trade Contractor Selection Process

8.6.2.1 Trade Contractor Prequalification

8.6.2.1.1 The Owner's Project Manager shall assist and advise the Owner in the development of a prequalification and selection process for both Trade Contractors and Non-Trade Contractors that have been identified by the Owner in accordance with Chapter 149A, Section 8.

8.6.2.1.2 The Owner's Project Manager shall review the information provided by the CM at Risk describing the work to be required of each Trade Contractor and shall assist and advise the Owner and Designer in the preparation of the Request for Qualifications for Trade Contractors to be used to solicit responses from eligible Trade Contractors and to prequalify Trade Contractors for participation in the Project.

The Owner's Project Manager shall assist and advise the Owner and the Designer in the public notice, solicitation, and advertisement of the Request for Qualifications for Trade Contractors.

8.6.2.1.3 The Owner's Project Manager shall assist and advise the Trade Contractor Prequalification Committee and the Owner in reviewing and scoring all Trade Contractor responses to the Request for Qualifications and make recommendations to the Trade Contractor Prequalification Committee and the Owner regarding the selection and notification of Trade Contractors prequalified to submit a bid on the Project in accordance with the provisions of M.G.L. 149A, § 8(a) –(i).

8.6.2.2 Request for Bids for Trade Contractor Services

The Owner's Project Manager shall assist and advise the Owner and the Designer in the preparation of the Invitation for Bids for Trade Contractor services in accordance with the provisions of M.G.L. c. 149A, § 8(g).

8.6.2.2.1 The Owner's Project Manager shall assist and advise the Owner in the distribution of the Invitation for Bids to prequalified Trade Contractors in accordance with M.G.L. c. 149A §8(g).

8.6.2.2.2 The Owner's Project Manager shall attend all pre-bid conferences and meetings and Trade Contractor openings and assist and advise the Owner if directed by the Owner.

8.6.2.3 Trade Contractor Bid Review

The Owner's Project Manager shall attend all bid openings and shall review all Trade Contractor bids in conjunction with the Designer and CM at Risk to determine responsiveness, completeness, accuracy, price and conformance to the requirements of M.G.L. c.149A, § 8(a)-(i), and to provide technical guidance to the Owner regarding the acceptance or rejection of the Trade Contractor bid.

Pursuant to M.G.L. c. 149A, § 8(h), in the event that the Owner receives less than three (3) responsive bids on any Trade Contract, and the lowest responsible bid exceeds the estimated cost of the work for which bids are requested, the Owner's Project Manager shall monitor the activities and responsibilities of the CM at Risk in the negotiation of an acceptable price with the lowest prequalified bidder, and, if necessary, the second lowest prequalified bidder. If such negotiations are unsuccessful, the Owner's Project Manager shall advise the Owner, and shall monitor the activities and responsibilities of the CM at Risk, with respect to the solicitation of additional bids and the selection of Trade Contractors in accordance with the provisions of M.G.L. c. 149A, §§ 8(h) & (j).

8.6.2.4 Contract Award

8.6.2.4.1 The Owner's Project Manager shall review the contracts between Trade Contractors and the CM at Risk for conformance with the requirements of G.L. c. 149A , § 8, and all applicable public construction statutes.

8.6.2.4.2 The Owner's Project Manager shall obtain from all Trade Contractors, and maintain on file, all performance and payment bonds, bid bonds, insurance certificates, and all other documents and certificates required by law or by the terms of the Contract between the Owner and the CM at Risk.

8.6.2.4.3 The Owner's Project Manager shall provide the Designer, Owner and the Authority with required copies of executed construction contract documents.

8.6.3 Non-Trade Contractor Selection

The Owner's Project Manager shall assist and advise the Owner in the proper administration and coordination of the Non-Trade Contractor selection process in accordance with the provisions of G.L. c. 149A, § 8(j), the applicable regulations and procedures promulgated by the Inspector General, and all other applicable law.

The Owner's Project Manager shall monitor the activities and responsibilities of the CM at Risk in the selection of Non-Trade Contractors.

8.6.3.1 Non-Trade Contractor Qualification

For each class of Non-Trade Contractors, for which the CM at Risk is requesting bids, the Owner's Project Manager shall review the qualifications established by the CM at Risk for each class of Non-Trade Contractors and the list of three (3) Non-Trade Contractors and make recommendations to the Owner regarding approval of the qualifications

established by the CM at Risk, whether any of the three Non-trade Contractors should be eliminated from the list, or whether any Non-trade Contractors should be added to the list, all in accordance with the provisions of M.G.L.c. 149A, § 8(j).

8.6.3.2 Non-Trade Contractor Bidding

The Owner's Project Manager shall review the detailed bidding information developed by the CM at Risk in accordance with M.G.L. c. 149A, § 8(j) for accuracy, completeness, and coordination of scope.

8.6.3.3 Non-Trade Contractor Bid Review and Award

Where permitted by agreement between the Owner and the CM at Risk or where otherwise permitted by law, the Owner's Project Manager shall attend all bid openings and, in conjunction with the Designer and CM at Risk, the Owner's Project Manager shall review all Non-Trade Contractor bids for responsiveness and completeness and advise the Owner on the acceptance or rejection of any Non-Trade Contractor bids by the CM at Risk. The Owner's Project Manager shall review and report on all tabulations of bids as presented by the CM at Risk in accordance with M.G.L. c. 149, § 8(j) and ascertain that the tabulations and final awards are consistent with the bids.

8.6.3.4 Non-Trade Contractor Alternate Selection Procedure

With respect to Non-Trade Contracts with an award value that does not exceed the threshold sum identified in M.G.L. c 149, § 44(F)(1), the Owner's Project Manager shall review the selection method proposed by the CM at Risk to select this class of Non-Trade Contractor and advise the Owner as to whether the Owner should approve the proposed selection method in accordance with G.L. c. 149A, § 8(j).

The Owner's Project Manager shall attend all bid openings and, in conjunction with the Designer and CM at Risk, the Owner's Project Manager shall review all such Non-Trade Contractor bids for responsiveness and completeness and advise the Owner on the acceptance or rejection of any Non-Trade Contractor selected by the CM at Risk.

8.7 Construction Phase

The Owner's Project Manager shall provide supervisory staff for each of the following activities, from Notice to Proceed to contract close-out.

- 8.7.1 The Owner's Project Manager shall monitor the Designer's administration of the Owner-CM at Risk Agreement including the processing of submittals, issuance of timely decisions and directives and consultant's or subconsultants' visits to the Project as necessary during the time that construction is occurring on the portions of the work to which the consultant's services relate.

- 8.7.2 The Owner's Project Manager shall provide a full-time (40 hours per week minimum) on-site Project Representative, who shall be dedicated exclusively to the Project, either as an employee of the Owner's Project Manager or as a subconsultant to the Owner's Project Manager.
- 8.7.2.1 The Project Representative shall be subject to the approval of the Owner and the Owner reserves the right to require the Owner's Project Manager to replace the Project Representative at any time during the course of the Project.
- 8.7.2.2 The Project Representative shall have at least five years experience in on-site supervision of projects similar in size and complexity to the Project.
- 8.7.2.3 Unless otherwise directed, the Project Representative shall be present at all times when the CM at Risk is conducting operations at the site starting from issuance by the Owner of a Notice to Proceed to the CM at Risk and continuing until issuance to the CM at Risk of a Certificate of Substantial Completion by the Owner and thereafter on an, as needed basis, until issuance to the CM at Risk of a Certificate of Final Completion by the Owner.
- 8.7.3 The Owner's Project Manager shall review the CM at Risk's schedule of values to determine if it represents a reasonably balanced payment schedule for work to be performed with no items front-end loaded or artificially inflated. The schedule of values shall include line items for all deliverables, testing requirements and specified operations and maintenance materials.
- 8.7.4 The Owner's Project Manager shall review the CM at Risk's submitted baseline schedule. The Owner's Project Manager shall be responsible for monitoring the timeliness of these submittals and enforcing compliance with schedule submittal requirements of the construction documents. The Owner's Project Manager shall evaluate the CM at Risk's planning for the execution of the work, evaluate the reasonableness of the proposed schedule and determine if the submitted schedule meets the requirements of the construction documents.
- 8.7.5 The Owner's Project Manager shall provide daily observation and monitoring of construction activities such that all shifts and work activities are observed and documented. Responsibilities shall include:
- 8.7.5.1 The Owner's Project Manager shall keep a daily log containing a record of weather, the CM at Risk's work on site, number of workers, visitors to the site, safety status of the Project, equipment and equipment utilization, material and equipment deliveries, non-compliance with safety procedures and issuance of any safety violation notifications, accidents, general description of work performed and quality of work, visits of code enforcement officials and any resulting reports or orders, verbal instruction to interpretations given to the CM at Risk, pay items, and any observed delays, deficiencies and field problems.

- 8.7.5.2 The Owner's Project Manager shall prepare weekly progress reports for submittal to the Designer and the Owner that summarize the progress achieved, provide a concise description of problems and include a copy of the daily log.
- 8.7.5.3 The Owner's Project Manager shall assist the Designer in determining if construction and construction related activities are performed in accordance with plans and specifications and the approved shop drawings and are consistent with Massachusetts public construction laws.
- 8.7.5.4 The Owner's Project Manager shall monitor on a daily basis Time and Materials work on change orders for less than \$50,000, including work installed, volume measurements, time sheets, crew sizes and mixes, and equipment utilized.
- 8.7.5.5 The Owner's Project Manager shall evaluate actual quantities and classification of Unit Price work performed by the CM at Risk.
- 8.7.5.6 The Owner's Project Manager shall evaluate field problems, using the proper channels for solution and communication of the information to the Designer and the Owner.
- 8.7.5.7 The Owner's Project Manager shall coordinate and track requests for clarification on drawings/specifications, design changes and proposed change orders.
- 8.7.5.8 The Owner's Project Manager shall prepare responses to CM at Risk correspondence for the Owner.
- 8.7.5.9 The Owner's Project Manager shall monitor and coordinate the scheduling and activities of independent materials testing functions at the site, including distribution of reports and any necessary actions resulting.
- 8.7.5.10 The Owner's Project Manager shall maintain at the Project site, on a current basis, a record copy of Construction Contract Documents, including, but not necessarily limited to, drawings, specifications, addenda, change orders, and directives as well as all approved shop drawings, product data, samples, submittals, operations and maintenance manuals and all other relevant documents relating to the construction of the Project.
- 8.7.5.11 The Owner's Project Manager shall monitor the CM at Risk's compliance with Massachusetts prevailing wage requirements pursuant to M.G.L. c. 149 §§ 26 to 27H inclusive including assisting the Owner in cataloging and filing payroll affidavits.
- 8.7.5.12 The Owner's Project Manager shall shoot and maintain Project progress photographs showing construction progress at a frequency sufficient to document major activities or to document safety incidents, differing site conditions and quality issues. The Owner's Project Manager shall maintain a descriptive log and captioning of the photographs on CD.

- 8.7.6 The Owner's Project Manager shall monitor the CM at Risk's compliance with the construction schedule, identify potential problems, include problem identification on the Monthly Progress Report and make recommendations to the Owner when, in the opinion of the Owner's Project Manager, requirements of the CM at Risk in the Owner-CM at Risk Agreement are not being fulfilled.
- 8.7.7 The Owner's Project Manager shall attend weekly job meetings on progress, coordination and problem resolution and negotiations. The Owner's Project Manager shall review the meeting minutes that are submitted to the Owner by the CM at Risk and shall advise the Owner as to the completeness, accuracy and general acceptability of the minutes.
- 8.7.8 The Owner's Project Manager shall schedule the Authority's Commissioning Consultant, as required to support the construction schedule, to provide commissioning services and reports as required.
- 8.7.9 The Owner's Project Manager shall monitor, review and analyze proposed change orders, and claims recommending appropriate action and resolution to the Owner in accordance with Article 8.1.4.
- 8.7.10 The Owner's Project Manager shall review and coordinate its review with the Designer to recommend approval of the CM at Risk's monthly payment requisitions. The Owner's Project Manager shall review each Trade Contractor's or Non-Trade Contractor's payment requisition and the CM at Risk's requisition of costs to ascertain that the Owner is paying for actual costs and fees in accordance with the Owner-CM at Risk contract.
- 8.7.11 The Owner's Project Manager shall oversee and monitor the procurement of furniture, fixtures, equipment and technology that is not included in the construction contract.
- 8.7.12 After the Owner and the CM at Risk have agreed on a Guaranteed Maximum Price ("GMP") in accordance with M.G.L. c. 149A, § 7, the Owner's Project Manager shall promptly notify the Owner when actual costs exceed the detail line item cost breakdowns set forth in the GMP amendment.
- 8.7.13 The Owner's Project Manager shall verify substantial completion of work; assist the Designer in the Designer's final inspection and receipt of documents, manuals, receipts, certifications, and all other materials required for final closeout as described in the Owner-CM at Risk contract, including, but not limited to, the GMP amendment and any other amendments thereto. The Owner's Project Manager shall coordinate the detailed punchlist with the Designer, including a subsequent walk-through with the Designer, CM at Risk and the Authority's Commissioning Consultant. The Owner's Project Manager and the Designer shall then coordinate a walk-through with the Owner to finalize the punchlist. The Owner's Project Manager shall then be responsible for tracking and confirming the completion of the punchlist items.

8.8 Completion Phase

- 8.8.1 The Owner's Project Manager shall monitor the activities and responsibilities of the Designer and the CM at Risk in the close-out and commissioning of the Project.
- 8.8.2 The Owner's Project Manager shall assist in securing and reviewing and recommending approval of all project completion forms and documentation necessary for occupancy and full operation of the facility including, but not necessarily limited to, inspection certificates of local building authorities, Certificate of Substantial Completion, Certificate of Final Completion, Occupancy Permit, shop drawings, as-built drawings, operations and maintenance manuals, warranties, guarantees and any and all documentation as required by the contract documents and the Authority.
- 8.8.3 The Owner's Project Manager shall assist the Owner in completing the written evaluation of the Designer(s) pursuant to M.G. L. c. 7 § 38E and prepare, sign and provide to the Owner for its signature the written evaluation of the Contractor(s) or CM at Risk, and subcontractors in accordance with the provisions of M.G.L. c. 149 § 44D.

END OF ARTICLE 8 OF BASE OPM CONTRACT AMENDMENT FOR CM AT RISK

June 26, 2018

Manchester Memorial School Building Committee
c/o Dore + Whittier Management Partnership
Mr. Mike Burton
260 Merrimac Street, Building 7
Newburyport, MA 01950

Re: Memorial Elementary School
Manchester-by-the-Sea, MA
Proposal for Design Services through Construction Phase
JCJ Project No. B17046.00

Dear Mr. Burton and Members of the School Building Committee:

In accordance with Article 7.4.8 of the Contract for Designer Services between the Manchester-Essex Regional School District (District) and JCJ Architecture (JCJ) executed on July 25, 2017, JCJ is pleased to submit this proposal to provide design services necessary to complete the Design Development Phase through the Construction Phase for your consideration.

Compensation for the Basic Services shall be the lump sum total of Four Million, Six-Hundred Twenty-Two Thousand Five Hundred and no/100's (\$4,622,500.00) distributed as follows:

Basic Services include the following:

Design Development Phase	\$1,165,500.00
Construction Contract Documents Phase	\$1,750,000.00
Bidding	\$170,000.00
Construction Phase	\$1,345,000.00
Closeout	\$192,000.00
Basic Services Subtotal	\$4,622,500.00

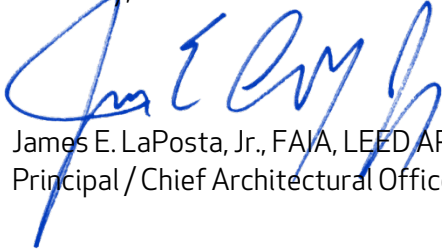
Compensation for Reimbursable Services has been estimated to be \$143,800. Proposals for each item will be provided for your review. Costs are distributed as follows:

Other Reimbursable Costs (including LEED)	\$8,800.00
Hazardous Materials (Monitoring)	\$50,000.00
Geotechnical Engineering (Additional Site Investigation)	\$25,000.00
Geotechnical Engineering (Monitoring Services during CA)	\$60,000.00
Reimbursable Services Subtotal	\$143,800.00

Work will begin immediately upon receipt of authorization to proceed with this scope of services.

Please contact our office with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "James E. LaPosta, Jr.", is written over the printed name and title.

James E. LaPosta, Jr., FAIA, LEED AP
Principal / Chief Architectural Officer

Attachment: Milestone Schedule (Dated June 5, 2018)

CC: Daniel F. B. Ruiz MCPPO, JCJ
File B13020.00 / 100-02A

Manchester Memorial Elementary School – Manchester, MA
Milestone Schedule for Design Deliverables and Procurement

5-Jun-18

Milestone item	Lead Responsibility	Duration (Weeks)	Start	Finish	Remarks
Modular Procurement Package (Need, Scope and Approach to be determined)					
Draft Modular Pkg Docs	JCJ	10	30-Aug-18	8-Nov-18	Start before vote! (TBC)
Modular Pkg Estimate/Review	WTR	2	8-Nov-18	22-Nov-18	
Final Modular Pkg Docs	JCJ	2	22-Nov-18	6-Dec-18	
Bidding, De-scope and LOR	WTR	4.7	6-Dec-18	7-Jan-19	
Approval to Award	MSBC*	0.5	7-Jan-19	11-Jan-19	Allow 6 mos for fabrication and delivery plus 2 mos install
Local Approvals					
Town Meetings	Towns		15-Oct-18	16-Oct-18	
Town Ballots	Towns			6-Nov-18	
Design Development					
Authorization to proceed with DD	MSBC*			9-Nov-18	
DD pricing set issued	JCJ	10	9-Nov-18	18-Jan-19	
DD cost estimating	WTR/VJA	2	18-Jan-19	1-Feb-19	
Reconciliation, value engineering	DWMP	1	1-Feb-19	8-Feb-19	1 week (tight consider 1.5 to 2 weeks)
MSBA DD Submission	JCJ/DWMP			8-Feb-19	
Early Package #1 (Abatement, Demo, Site Prep)					
Draft EP #1 Docs	JCJ			8-Feb-19	Align with issuance of DD submission
EP #1 Review comments	WTR (& others)	2	8-Feb-19	22-Feb-19	
EP #1 Bid Docs	JCJ	2	22-Feb-19	8-Mar-19	
EP #1 Bid and De-scope	WTR	4	8-Mar-19	5-Apr-19	
EP #1 - Approval to Award	MSBC*	0.5	5-Apr-19	8-Apr-19	
60% Construction Documents					
Approval to proceed with CD's	MSBC			8-Feb-19	
60% CD pricing set issued	JCJ	9	8-Feb-19	12-Apr-19	
60% CD cost estimating	WTR/VJA	2	12-Apr-19	26-Apr-19	
60% CD reconciliation, value engineering	DWMP	1	26-Apr-19	3-May-19	1 week (tight consider 1.5 to 2 weeks)
MSBA 60% CD Submission	JCJ/DWMP			3-May-19	
Early Package #2 (Foundations, Site Work, Steel and Rammed Aggregate Piers)					
EP #2 Bid Docs	JCJ			3-May-19	In conjunction with 60% CD submission.
EP #2 Bid, Descope, LOR	WTR	4	3-May-19	31-May-19	
EP #2 - Approval to Award	MSBC*	1	31-May-19	7-Jun-19	
90% Construction Documents					
Approval to proceed with 90% CD work	MSBC			3-May-19	
90% CD pricing set issued	JCJ	7	3-May-19	21-Jun-19	
90% CD cost estimating	WTR/VJA	2	21-Jun-19	5-Jul-19	
90% CD reconciliation, value engineering	DWMP	1	5-Jul-19	12-Jul-19	
MSBA 90% CD Submission	JCJ/DWMP			12-Jul-19	
100% Construction Documents and GMP Establishment					
Prepare and Issue 100% Construction Docs for Bidding	JCJ	8	12-Jul-19	6-Sep-19	
Bid and Award Expedited Contracts	WTR/MSBA*	5	6-Sep-19	11-Oct-19	Metal Windows, Roofing, Drywall, Millwork and Doors/Hardware
Bid and Award Remaining Trade and Priority Non-Trade Contracts	WTR/MSBA*	7	6-Sep-19	25-Oct-19	Priority Non-Trade: Applied Fire Proofing, Spray Foam Insulation and Metal Panels/Fiber Cement Board
Establish and execute GMP	WTR/MSBA	4	25-Oct-19	22-Nov-19	

MSBC* - Can potentially be MSBC designee or some other authorized party

LOR = Letter of Recommendation

7.5 CM at Risk Construction Delivery Method

7.5.1 CM at Risk Prequalification & Selection

- (a) The Designer shall participate as a member of the Owner's CM at Risk Prequalification Committee and CM at Risk Selection Committee pursuant to M.G.L. c. 149A, §§ 5 & 6.
- (b) The Designer shall, when authorized by the Owner, prepare for reproduction and distribution all project design documents, that are required for the solicitation and receipt of qualifications and proposals from CM at Risk firms pursuant to M.G.L. c. 149A, §§ 5(b) & 6(a). The Designer shall prepare all addenda (to include questions from CM at Risk firms and Designer responses), subject to the approval of the Owner. The Designer shall attend a pre-proposal conference, and existing site and building tour if either or both are to be scheduled, taking note of all questions asked. Relevant questions submitted in writing shall be answered by the Designer in conjunction with the OPM by means of written addenda to the RFQ or RFP described below, as required.
- (c) As a member of the Owner's CM at Risk prequalification committee, the Designer shall review and evaluate in conjunction with the Prequalification Committee, the Statements of Qualifications received from CM at Risk firms on the basis of the evaluation criteria established in the RFQ and shall make appropriate recommendations regarding the selection of qualified CM at Risk firms to receive a request for proposals from the Owner in accordance with the provisions of M.G.L. c. 149A, § 5(f).
- (d) As a member of the Owner's CM at Risk selection committee, the Designer shall review and evaluate the RFP's received from prequalified CM at Risk firms on the basis of the evaluation criteria included in the RFP. The Designer shall make appropriate recommendations regarding the evaluation and ranking of RFP's and the conducting of interviews, if any, in accordance with the provisions of M.G.L. c. 149A, § 6(d), and the applicable regulations and procedures promulgated by the Inspector General. If the Selection Committee elects to conduct interviews of the CM at Risk firms, the Designer shall participate in conducting interviews.
- (e) As member of the Owner's CM at Risk Selection Committee, the Designer shall assist the CM at Risk Selection Committee in non-fee negotiations with the CM at Risk until the Selection Committee has reached an acceptable contract with one of the prequalified CM at Risk firms in accordance with M.G.L. c. 149A § 6(e).
- (f) If, at any time, the Owner terminates the Owner-CM at Risk contract, the Designer shall continue to provide the Designer Services required under this Contract with

any substitute CM at Risk procured by the Owner. If, as provided by law, the Owner elects to proceed with the Project pursuant to the provisions of M.G.L. c. 149 (design-bid-build), the Designer may continue to provide Designer Services pursuant to a mutually agreeable amendment to this Contract subject to the approval of the Authority.

7.5.2 Design Review for the CM at Risk Construction Delivery Method

- (a) The Designer shall provide Designer Services in a manner consistent with the CM at Risk Delivery Method, as defined herein, in all Phases of the Project and shall work cooperatively with the CM at Risk, as well as the Owner, OPM, Commissioning Consultant and the Authority to achieve timely completion of the Project within the Project Construction Budget.
- (b) Upon execution of the Owner-CM at Risk Agreement, the Designer shall:
 - 1. meet with the Owner, the OPM and the CM at Risk to discuss issues and to establish procedures for efficient interaction in a cooperative and mutually supportive manner that will permit all parties to perform their contractual obligations. These procedures shall include, but not be limited to: arrangements for the collaboration and coordination between the Designer and the CM at Risk in the preparation and submission of all design phase documents to the Owner; arrangements for discussions concerning all design phase document submittals among the Owner, OPM, CM at Risk and Designer; and arrangements for frequent and productive interactions between the Owner, OPM, CM at Risk and Designer during all the design phases.
 - 2. provide copies of the schematic design drawings, specifications, cost estimates and other submittals to the CM at Risk, to assist the CM at Risk in fulfilling its responsibilities to the Owner. The Designer shall consult with the CM at Risk and provide the CM at Risk with an opportunity to review and comment upon deliverables developed by the Designer during the Schematic Design Phase.
- (c) The Designer shall attend and participate in meetings as necessary with the CM at Risk, the Owner and the OPM to resolve all issues.
- (d) The Designer shall consult with the Owner, the OPM, and the CM at Risk regarding the sequence of delivery of design services; the selection of materials, building systems and equipment; alternative solutions recommended by the CM at Risk when design details affect construction feasibility, schedules, cost or quality; other value engineering comments and recommendations made by the CM at Risk; comments and recommendations concerning the design documents with respect to clarity, consistency, constructability,

maintainability/operability and coordination among the trades, coordination between the specifications and drawings, compliance with M.G.L. c. 149A for procurement, installation and construction, and sequence of construction, including recommendations designed to minimize adverse effects of labor or material shortages.

- (e) The Designer may be required, as a part of Basic Services if previously agreed with the Owner, to prepare plans and specifications for discrete portions of the Work that can be incorporated into separate bid packages for the various Subcontractors who will construct the Project. Such contracts may be awarded concurrently with other contracts or individually, or at different points in time, which may result in the Designer completing portions of the design after commencement of construction of the Project and/or providing Construction Phase services before completion of all design phase services. The design for each separate bid package shall separately be subject to all requirements applicable to the various phases set forth in this Contract and shall be performed in a manner consistent with the provisions of the Project Funding Agreement, including, but not limited to, the Project Construction Budget and Project Schedule.
- (f) The Designer shall consult with the CM at Risk concerning the ordering and delivery of products and assemblies and shall identify and describe any long lead products or assemblies that need to be priced and pre-ordered to meet the Project Schedule.
- (g) The Designer shall identify and describe any multiple bid packages or fast-tracked construction that will be used and any separate bid packages that will be required.

7.6 Design Development Phase

- 7.6.1 The Designer shall provide the CM at Risk with an opportunity to review and comment upon design documents developed by the Designer during the Design Development Phase. The Designer shall work cooperatively with the CM at Risk throughout the Design Development Phase of the Project to obtain the benefit of the knowledge and experience of the CM at Risk with respect to design review, value engineering, constructability analysis, cost estimating, cost control, scheduling, coordination of bid packages, phasing, and other services and, with the approval of the Owner, the Designer shall thereupon incorporate recommended and mutually accepted changes into its design documents.
- 7.6.2 Upon receipt of an Approval to proceed to the Design Development Phase, the Designer shall meet regularly and as necessary with the Owner, the OPM, the CM at Risk and the Authority. This shall include meeting at least once every other week with the Owner, the OPM and the CM at Risk during this Phase.

7.6.3 Upon receipt of an Approval to proceed to the Design Development Phase, the Designer shall update and refine items submitted during the Schematic Design Phase, and shall submit to the Owner, CM at Risk, and the Authority, on or before the date specified in the Project Schedule, and on the basis of the approved Schematic Design Phase Documents, the following deliverables as they are defined in this Article 7.6.3 and as they are further defined in Articles 7.6.4, 7.6.5, 7.6.6, 7.6.7, and 7.6.8:

- (a) a list of all filings and permits within Designer's scope of services and professional expertise required to implement the design and a schedule of target dates for the procurement of such permits, which list and schedule shall be regularly updated during the term of this Contract;
- (b) information and documentation within the technical expertise of the Designer and that is necessary for the Owner to file local basic zoning and environmental permits. The Designer, as Extra Services, shall provide information and documentation for the Owner to file Environmental Notification Forms, Environmental Impact Reports, and any other filings for permits that must be filed during the design development phase;
- (c) soils exploration data, geotechnical and geoenvironmental reports, showing exploratory locations relative to siting of proposed structures;
- (d) complete design development drawings; outline specifications indicating any filed sub-bid sections and sub-sub trades based on the cost of the work and other documents necessary to specify the size and character of the Project as to siting, landscape, architectural, structural, fire protection, plumbing, heating, ventilating and air conditioning, electrical, ADA/MAAB, product requirements, and other features;
- (e) quality control documentation demonstrating, without limitation, coordination of: ceiling clearances, mechanical room size, and shaft sizes; specifications and drawings; filed sub-bid work or sections; scheduling; equipment and power; existing and new construction; and phasing;
- (f) design development drawings which the Designer shall submit for review to the local building official;
- (g) a life cycle cost analysis to determine which design decisions related to all energy and water consuming devices and overall building operation and maintenance are the most cost effective [M.G.L. c. 149, s. 44M];
- (h) a construction cost estimate for the design in Uniformat II Level 3 format, with unit rates and quantities supporting each item and reconciled with the detailed construction cost estimate and any updated cost estimates in accordance with Article 7.6.7. The estimate cost shall be projected, to the mid point of the construction period;

- (i) a space measurement analysis for the design verifying that the sum of all program areas in the Project plus all other floor areas in the Project equals the gross floor area of the Project;
- (j) a written summary or summaries comparing the project design, as represented in the design development drawings, specifications and cost estimates with the Final Design Program requirements, and explaining any deviations in writing.

7.6.4 Design Development Drawing Requirements: The Design Development drawings shall illustrate and describe the refinement of the design of the Project to a level of detail that is customary and standard, establishing the scope, relationships, forms, size and appearance of the Project by means of plans, sections and elevations, typical construction details, and equipment layouts. Drawings shall delineate locations and elements of Work which may be proposed to be assigned to project construction phases and/or separate bidding packages. Documents shall include, but not be limited to, the following:

- (a) Site and utility drawings showing;
 - 1. Existing and proposed contours and locations of the proposed building or addition(s). Show entry level elevation and key exterior grades at perimeter. Indicate all retaining walls. Include benchmarks of site if survey is available.
 - 2. All utilities existing and proposed, indicating location, elevation, composition and size e.g., manholes, sewers, hydrants, light standards. Include work by others, e.g., gas and electric utility providers.
 - 3. Roads, laid out parking areas, walks, recreation areas, terraces and other site improvements.
 - 4. Building locations fixed and referenced from main survey baseline, if available.
 - 5. Plant materials with preliminary schedule.
- (b) Building drawings and other graphic and written requirements with floor plans showing: (minimum scale 1/8" = 1'0");
 - 1. building perimeter with exterior wall thicknesses and overall dimensions;
 - 2. structural grid;
 - 3. plan requirements of mechanical and electrical systems;
 - 4. building core; elevators, stairs, shafts, toilet rooms;
 - 5. interior partitions; appropriate thicknesses and dimensions to fix basic organizations; indicate fire separations, ratings;
 - 6. door swings;
 - 7. floor elevations;

8. built-in furniture and equipment; and
 9. furniture layout concept drawings.
- (c) Roof plans showing:
1. proposed systems type;
 2. pitch and drainage patterns;
 3. roof drains, gutters and scuppers;
 4. skylights, stairs through roof, penthouses, major equipment, chimneys.
- (d) Building sections: One transverse and one longitudinal section. Indicate floor to ceiling heights and floor-to-floor heights. Label all spaces;
- (e) Building elevations showing:
1. full height elevations including roof structures, e.g., mechanical equipment, chimneys, and penthouses;
 2. floor elevations, floor-to-floor heights, and overall height related to benchmarks on site plans;
 3. all fenestration;
 4. column centerlines;
 5. principal finish materials indicating major control and expansion joints, and divisions of materials where required;
 6. louver and equipment enclosure systems; and
 7. exterior grades and topographical features in context.
- (f) Full height wall sections for main elevations and at special conditions. Show foundation and perimeter treatment, wall construction including insulation and supporting structure, fenestration and mechanical penetrations, and floor construction;
- (g) Interior elevations: Major spaces, e.g. library, lobby; and all typical spaces, e.g. classrooms;
- (h) Reflected ceiling plans: show prototypical structural, fire protection, mechanical and electrical information for classrooms and major spaces, including lighting layouts with ceiling heights and material changes;
- (i) Colored interior elevations and perspectives of major and typical spaces;
- (j) Schedules:
1. finish schedule by room types;
 2. door schedule by room;
 3. window schedule;

4. equipment schedules, e.g., food service, instructional media.

(k) Structural Concepts:

1. Foundation plan showing sizes and locations of typical components.
2. Framing plans: typical floor framing, roof framing, special framing, show framing at major openings and sizes of members.
3. Column locations.
4. Preliminary details including floor and roof deck, statements as to methods of lateral bracing and how requirements of earthquake code will be met.
5. Details for special and/or incidental structural features, e.g. tunnels, connecting bridges and unique architectural features.
6. Connection to existing buildings at foundation and at key points at existing structure if applicable.

(l) Fire Protection: floor plans indicating wet or dry type systems, hose racks or cabinets and fire department tie-ins. Indicate whether a fire pump will be required and, if so, show location within the building. Show typical sprinkler head layout;

(m) Plumbing and sanitary systems: floor plans indicating locations of all plumbing fixtures and special features, and approximate location and size of all piping systems and principal items of equipment;

(n) Heating, Ventilating and Air Conditioning Systems;

1. Show locations and approximate sizes of piping systems, air handling systems and principal items of equipment such as compressors or cooling towers.
2. Indicate space requirements of major equipment and their location in mechanical rooms and fan rooms. Major shafts.

(o) Electrical Systems;

1. Calculations showing total electrical load.
2. All services including those for special purposes shall be located and indicated.
3. Lighting shall be indicated as to type, location and intensities in foot-candles for each special and typical space.
4. Switchgear and emergency generator.
5. Fire alarm system drawings showing all initiation and signaling devices, control panels, annunciator panels, etc.
6. Security system drawings.
7. Communications drawings showing chases, major equipment locations and any special distribution requirements.

8. CATV/CCTV drawings showing chases, major equipment locations and any special distribution requirements.
 9. Information Technology drawings showing chases, major equipment locations and any special distribution requirements.
- 7.6.5 Other Consultant's Drawings and Other Graphic and Written Requirements: For special consultants, e.g., kitchen, elevator, library, media room, equipment where appropriate, provide drawings that locate and define the scope of the work. Coordinate with other disciplines. Provide cuts of all major pieces of equipment.
- 7.6.6 Project Manual Requirements (Specifications):
- (a) Outline Specifications that are to accompany Design Development Drawings shall be prepared to a level of detail that is standard and customary and shall include, but not be limited to, a comprehensive description of the Project and the materials proposed for use in the work. No detailed specifications of materials or workmanship procedures need be included; however, the general scope shall be indicated by CSI MasterFormat as applicable to proposed construction.
 1. The Design Development Outline Specification shall also include a comprehensive "BASIS OF DESIGN." The "BASIS OF DESIGN" shall be a narrative description of the Project and shall include all applicable architectural, civil, structural, mechanical and electrical programs and/or systems. Identify all proposed filed sub-bid categories.
 2. Project Manual shall include a statement to define Work which is proposed to be included in separate construction phases and/or bid packages.
 - (b) The following is a list of items that shall at a minimum be identified or outlined in this Phase.
 1. Site work; clearing, drives, walks, parking areas, fences, excavation, backfill, planting.
 2. Footings; on earth, rock, piles, caissons, proposed bearing pressures, boring logs.
 3. Foundation walls; type of concrete, reinforcing, type and extent of waterproofing.
 4. Footing drains; type, disposal of drainage.
 5. Exterior walls: superstructure, type, materials, brick type, alternate cladding, back-up materials, dampproofing material and extent, special features.
 6. Roofs; types, vapor barrier, insulation, flashings, all materials.
 7. Flashings; general types, all materials, weights, where each type is to be used.
 8. Sheet metal; gutters, leaders, others uses, except flashings.
 9. Windows; general types, materials, sub-frames, finish, glazing, screens.

10. Doors, exterior and interior; types.
11. Steps, exterior; including platforms and landings' materials.
12. Stairs, interior; including platforms, landings, walls, materials and finishes.
13. Framing; wood, concrete or metal systems in accordance with general design.
14. Partition construction related to room type;
15. Cabinet and casework; types and materials.
16. Food Service Equipment; types and materials.
17. Furring; lathing, plastering, materials and locations.
18. Insulation thermal; types, thicknesses, methods of application and locations.
19. Acoustical treatments; types, thicknesses, methods of application and location.
20. Interior finishes; materials for floors, walls, bases, wainscots, trim, ceilings, ceiling heights.
21. Fire Protection; standpipe systems, sprinkler systems, fire pumps and accessories.
22. Water supply; source; location of main to which connection will be made; type of pipe for service main; load requirements; load factors and pressures.
23. Sanitary sewers; sewage disposal system, pipe and other materials.
24. Storm sewers; storm drainage disposal system (institution or local facility), pipe and other materials.
25. Gas main; material, size, location. Interface with utility company.
26. Plumbing; systems such as wastes, vents, hot water, cold water, gas, air, oxygen, vacuum, main source of supply, materials for each, water heaters, pumps, thermal insulation fixture quality, all special features.
27. Heating, ventilating and air conditioning; type of heating and refrigeration plants, type and capacity of boilers and cooling equipment, fuel, type of burners, fuel storage, heaters, feed water pumps and heaters, thermal insulation, type of heating medium, supply and return piping, radiation, unit heaters, radiant heating, principal air conditioning equipment types, special features, supply, return and exhaust ductwork.
28. Electric work; service connection, location, institution or public utility, overhead or underground, transformers including type and location, types of conduit and wiring, types of fixtures, location of main switchboard, radio, fire alarm, telephone, public address, emergency lighting and wiring, emergency or other generators, special features, including Master TV, information retrieval and/or data processing system.

- 29. Elevators, dumbwaiters and platform lifts; capacities, speed, travel in feet, landings, operation, controls, platform sizes, machine type and location, car and entrance finishes, signals.
- 30. Other built-in equipment, types and materials.
- 31. Special features.

7.6.7 Construction Cost Estimate Requirements – The Designer shall provide a construction cost estimate in Uniformat II Level 3 format with aggregated unit rates and quantities supporting each item referenced in Article 7.6.6(b). The estimate cost shall be projected, to the mid point of the construction period.

The Designer shall review its construction cost estimate in comparison with the detailed construction cost estimate, and any updated cost estimates, provided by the CM at Risk and/or OPM and shall work in good faith and in cooperation and coordination with the CM at Risk and/or OPM to reconcile any differences between the construction cost estimates, to clarify assumptions upon which the cost estimates are based and to address any concerns or questions with the cost estimates that are raised by the Owner, the OPM, the CM at Risk, or the Authority. If the Designer is unable to reconcile all differences between the two construction cost estimates with the CM at Risk, then the Designer shall provide a detailed explanation of the differences to the Owner. If, in any case, the agreed-upon, reconciled construction cost estimate exceeds the Project Construction Budget, the Designer shall cooperate with the Owner, the OPM, and the CM at Risk in identifying, specifying and recommending changes in materials, equipment, component systems and types of construction, or other adjustments in the scope or materials selections for the Project, including contingencies or alternative bid items, so as to facilitate revision of the design of the Project to reduce the cost of construction so as to comply with the authorized Project Construction Budget.

Cost estimate data shall be organized to identify elements of project work which may be proposed to be advanced under separate construction phases and/or separate bidding packages. When so proposed, estimates shall develop cost data relative to corresponding bidding and work execution dates established in project schedules.

7.6.8 Reports, drawings, specifications, cost estimates and other design development submittals shall be subject to the written approval of the Owner and the Authority. Unless a lesser number is requested by the Owner, the Designer shall submit to the Owner for approval six (6) copies of Design Development drawings, specifications, cost estimates, and other submittals. Two (2) copies shall be submitted to the Authority by the Designer. The Designer submit to the CM at Risk one copy (1) of Design Development drawings, specifications, cost estimates and other submittals to assist the CM at Risk in fulfilling its responsibilities to the Owner.

- 7.6.9 The Designer shall present and explain the Design Development submittal to the Owner and the Authority and at a local public meeting scheduled by the Owner, if any such meeting is scheduled or in conference.
- 7.6.10 The Designer and its Subconsultants shall collaborate with the Authority's Commissioning Consultant to develop design criteria which will support the purposes of building commissioning and energy/resources conservation concepts as commonly understood and as prescribed by the Commissioning Consultant.

7.7 Construction Documents Phase:

In addition to the requirements specified in the RFS (Attachment B), upon receipt of an Approval to proceed with the Construction Documents Phase of the Project from the Owner, the Designer shall do the following:

- 7.7.1 The Designer shall provide the CM at Risk with an opportunity to review and comment upon design documents developed by the Designer during the Construction Documents Phase. The Designer shall work cooperatively with the CM at Risk throughout the Construction Documents Phase of the Project to obtain the benefit of the knowledge and experience of the CM at Risk with respect to design review, value engineering, constructability analysis, cost estimating, cost control, scheduling, coordination of bid packages, phasing, and other services and, with the approval of the Owner, the Designer shall thereupon incorporate recommended and mutually accepted changes into its design documents.
- 7.7.2 The Designer shall meet regularly and as necessary with the Owner, the Authority, the OPM, the CM at Risk and the Commissioning Consultant. This shall include meeting with the Owner at least twice per month (or more frequently if needed) during this Phase.
- 7.7.3 Based on the submittals approved in the Design Development Phase of the Project, the Designer shall update and refine the items previously submitted and shall submit the following to the Owner, the CM at Risk, and the Authority on or before the date and time specified in the Project Schedule:
- (a) Construction documents progress submittals as follows:
1. a 60% Construction Documents Submittal, with deliverables as defined in Article 7.7.4;
 2. a 90% Construction Documents Submittal, with deliverables as defined in Article 7.7.5;
 3. a Final Construction Documents Submittal, with deliverables as defined in Article 7.7.6;
 4. a Bid Documents Submittal, with deliverables as defined in Article 7.7.7

- (b) As a part of each of the submittals required under Articles 7.7.4, 7.7.5, and 7.7.6, an updated work plan and recommended updates for incorporation into the Project Schedule by the OPM;
- (c) As a part of each of the submittals required under Articles 7.7.4, 7.7.5, and 7.7.6, a report on the status of environmental, zoning, planning, building code, and ADA/MAAB approvals and permitting processes and a certified list of all required testing and all required permits identified in 7.6.3 (a).
- (d) All submittals by the Designer shall be subject to the written approval of the Owner, which approval shall not be unreasonably delayed, withheld, conditioned, or denied. Unless a lesser number is requested by the Owner or is specifically provided hereinafter, the Designer shall furnish to the Owner for approval six (6) sets of the drawings, specifications, construction cost estimates and all other submittals. Unless a lesser number is specifically provided hereinafter, the Designer shall furnish two (2) sets of said drawings, specifications, construction cost estimates and all other submittals to the Authority and shall furnish one (1) set thereof to the CM at Risk. The Designer shall also furnish to the Owner, the Authority, and the CM at Risk electronic media copies of the foregoing drawings and documents in such form as may be required by the Authority.

7.7.4 The 60 Percent Construction Documents Submittal:

- (a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a 60 % Construction Documents Submittal (60% CD Submittal), which shall include:
 - 1. Construction Documents and other deliverables, as defined in this Article 7.7.4 and as further defined in Articles 7.7.3, 7.7.8, 7.7.9, and 7.7.10, advanced to a level of intermediate (60 percent) completion, and incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.
 - 2. In instances where the Designer takes exception to the Authority's previous review comments on the Design Development submittal, a written statement explaining its position.
 - 3. The Basis of Design that accompanied the Outline Specifications in the Design Development Phase shall be updated and expanded to include all proposed architectural, structural, fire protection, plumbing, mechanical, electrical, civil, and landscape design concepts for the Project.
 - 4. A space summary, in the form and format prescribed by the Authority, that sets forth the current space calculations and totals and certifies that said space calculations and totals are in compliance with those previously authorized by the Authority in the Project Funding Agreement.

5. Keying of graphics shall be sufficient to allow a reviewer to make his or her way through the set.
 6. A list of all drawings related to the Project.
 7. A materials selection statement identifying typical interior and exterior surfaces and their materials.
 8. A color theory statement indicating proposed paint colors and material selections for typical and special spaces and why they have been selected and how these selections relate to surrounding materials and colors.
 9. Large scale plans of all mechanical and electrical spaces with major equipment indicated.
 10. Project Manual, including all sections to be included in final technical specifications, developed to include a list of all materials in the building with their manufacturers. Identify all specifications sections which need to be filed sub-bid.
 11. Identify all proposed bid alternates by inclusion in a project manual section to be titled "Alternates." Alternates shall be listed in sequence as approved by the Owner. Work required under bid alternates shall be described and/or drawn, as appropriate, to clearly define the design criteria and extent of work involved for implementation of the bid alternate. In each instance, the existing conditions and/or new design criteria for base bid work shall also be described and indicated in documents.
 12. Code analysis: Provide a building code analysis. Any deviation from methods of compliance described in earlier submittals shall be indicated. Code analysis shall identify its preparer, code edition referenced, and include a comprehensive description of operative building code provisions, with floor plans showing fire separation types, area calculations, egress capacity for exits and exitways, and any special features required to comply.
- (b) As a requirement of the 60% CD Submittal, and in accordance with the provisions of this paragraph and Article 7.7.10, the Designer shall provide a construction cost estimate prepared using the Unifomat II Classification to Level 3, the CSI MasterFormat 6-digit format to Level 3 and MGL c.149 §44F (filed sub-bid) format including quantities of all materials and unit prices of labor, equipment, and materials as well as a cost estimate for each item of work, for review by the Owner, the CM at Risk and Authority. The Designer shall submit said construction cost estimate separately, as a supplement to the 60% CD

Submittal, no later than twenty-one days after the submission of the 60% CD Submittal described in Article 7.7.4(a). The development of said construction cost estimate shall under no circumstances delay the timely submission of the remainder of the 60% CD Submittal.

7.7.5 The 90 Percent Construction Documents Submittal:

- (a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a 90 % Construction Documents Submittal (90% CD Submittal), which shall include:
1. Construction documents and other deliverables as defined in this Article 7.7.5 and as further defined in Articles 7.7.3, 7.7.8, 7.7.9, and 7.7.10, advanced to a level of substantial (90 percent) completion, and incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.
 2. A space summary, in the form and format prescribed by the Authority, that sets forth the current space calculations and totals and certifies that said space calculations and totals are in compliance with those authorized by the Authority in the Project Funding Agreement.
 3. Interior Materials Color Boards, including samples of principal interior materials, labeled and mounted to indicate locations.
 4. Final structural and energy design calculations.
 5. A statement confirming that the Owner has been provided with structural design drawings, specifications, and calculations sufficient to enable execution of an independent structural peer review process, as defined in the Massachusetts Building Code, as amended (this requirement is applicable, to satisfy Authority requirements for all school construction projects having a floor area in excess of 10,000 square feet). The Designer shall have advised the Owner of this requirement in writing not less than sixty (60) days prior to delivery of the 90% CD Submittal in order for the Owner to arrange for the services of an Independent Structural Peer Reviewer. Upon reaching 90 percent completion of construction documents, Designer's structural engineering consultant shall have reached a level of 100 percent completion of its construction documents to enable advancement of the independent structural peer review.
 6. The Designer and its consultants shall fully cooperate with the Independent Structural Peer Reviewer in the process. The Designer shall obtain a copy of the Independent Structural Engineering Review report and submit same to the

Owner and the Authority at the time of completion of the remainder of the construction documents at the level of final completion.

7. In instances where the Designer takes exception to any of the Authority's 60% CD Submittal review comments, a written position statement explaining the Designer's position on its exceptions to said review comments.

7.7.6 Final Construction Documents Submittal:

- (a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a Final Construction Documents Submittal, which shall include:
 1. Construction documents and other deliverables as defined in this Article 7.7.6 and as further defined in Articles 7.7.3, 7.7.8, 7.7.9, and 7.7.10, advanced to a level of final (100 percent) completion, and incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.
 2. a final construction cost estimate, in accordance with the provisions of this paragraph and Article 7.7.10, based on 90% Construction Documents, including cost estimates for general conditions, overhead and profit, insurance, bonds, and all other items; and allowances expressed as percentage rates for design contingencies and construction contingencies and escalation to the bid date; and other mutually agreed upon contingencies. The final construction cost estimate shall be prepared in Unifomat II Elemental Classification to Level 3 (Sections A-G inclusive), the CSI MasterFormat to Level 3 and M.G.L. c.149, §44F (filed sub-bid) format and shall be complete with a single line description for each item with the detailed unit rate or item cost buildup provided in each case.
 3. complete construction drawings and specifications, certified by the Designer as having satisfied the firm's quality control review process as previously confirmed with the Owner, in sufficient detail to permit fixed-price bids in open competition for construction of the Project when documents have been approved for issuance for bidding.
 4. no later than at the 100% stage of completion of the final drawings and specifications, two sets of the final drawings and specifications that shall be provided to the local building official to be signed and stamped "Approved" by the local building official; two sets of plumbing drawings and specifications that shall be provided to the local plumbing inspector to be signed and stamped "Approved" by the local plumbing inspector; two sets of the fire protection, HVAC, and electrical construction documents that shall be provided to the local fire official to be signed and stamped "Approved" by the local fire official; two sets of the electrical construction documents that shall

be provided to the local electrical inspector to be signed and stamped "Approved" by the local electrical inspector. Notwithstanding the foregoing, the Owner acknowledges that building officials, department inspectors, and fire officials have varying policies on approvals and submittal procedures, and the only obligation of the Designer in this regard is to promptly make the submittals described herein and assist the Owner or CM at Risk in receiving the approvals to the extent available.

5. at the 100 percent stage of completion of final drawings and specifications, a written summary comparing the final construction drawings and specifications and final estimated construction cost with the Final Design Program requirements and submittals made during the Design Development Phase and earlier in the Construction Documents Phase, explaining any significant deviations.
6. In instances where the Designer takes exception to any of the Authority's 90% CD Submittal review comments, a written position statement explaining the Designer's position on its exceptions to said review comments.
7. The Independent Structural Engineering Peer Review Report obtained from the Independent Structural Engineering Peer Reviewer referenced in Article 7.7.5(a)5. The Designer shall include a certification statement from the project structural engineer designer of record to acknowledge receipt of the Report and to indicate response actions pursuant thereto. The Designer shall also forward a copy of said Report to the Building Inspector
8. A certification that all applicable local, state and utility officials have been contacted by the Designer regarding each utility connection and that the persons responsible for permits or connection approval have agreed to the systems' use.

7.7.7 Bid Documents Submittal:

- (a) The Designer shall provide, on or before the date and time specified in the Project Schedule, a Bid Documents Submittal which shall include:
 1. Construction documents and other deliverables as defined in this Article 7.7.7 and as further defined in Articles 7.7.3, 7.7.8, and 7.7.9, incorporating corrections to indicate compliance with Owner and Authority review comments related to prior submittals.
 2. From the construction drawings and specifications approved by the Owner, incorporating such changes as the Owner or the Authority requires, a set of reproducible black and white drawings and original specifications on high quality white bond paper, single-sided, properly packaged, suitable for

reproduction, stamped and signed by all disciplines, that shall be prepared by the Designer and transmitted to the Owner; which documents shall become the property of the Owner as provided under Article 16. Other suitable reproducible media, having the same content shall be substituted, when so directed or authorized by the Owner.

3. Upon receipt of Owner authorization to advance to reproduction the approved documents for distribution to bidders and, upon reproduction thereof, the Designer shall promptly submit complete sets of bid documents to the Owner (two sets), the CM at Risk (one set) and the Authority (one set - half size for Drawings). Any subsequent addenda shall be promptly submitted to the Owner, the CM at Risk, and the Authority.

7.7.8 Drawing Requirements:

The documents prepared during the Construction Documents Phase shall set forth the requirements for construction of the Project to a level of detail that is customary and standard and shall include, but not be limited to:

- (a) General information showing drawing index, symbols, abbreviations, notes, location map.
- (b) Site drawings shall be complete to define the extent and detail of site work. Show the following:
 1. Layout and location of all proposed work including buildings, structures, retaining walls, parking, walls and all other site improvements, with details.
 2. Existing and proposed grades and contours including floor elevations, existing structures and topography, survey base line, bench marks and boring locations.
 3. Landscaping and planting.
 4. All utility service lines, systems and structures for electricity, gas, oil, water, steam, telephone, CATV, fire alarm, sanitary and storm drainage including size, composition, grades and directions of flow.
 5. Contract Limit Line and Storage Area for construction materials.
 6. All existing foundations, obstructions and other physical characteristics of the site which may affect the construction work.
 7. Site survey.
 8. Cuts of benches, light standards.
- (c) Demolition drawings and temporary work required.
- (d) Architectural drawings shall include at a minimum:

1. Floor plans of each floor, including basement and lofts or attic with room and corridor dimensions, wall thicknesses, column locations, floor elevations, mechanical and electrical openings, door and window designations, partition types, floor materials, built in furniture and equipment, keyed to other architectural drawings. All rooms numbered.
2. Large scale floor plans where required to illustrate detailed requirements of rooms.
3. Large scale plans showing key areas e.g. lobby, special spaces. Indicate surface materials. (minimum scale $\frac{1}{4}" = 1' - 0"$)
4. Roof plans showing openings, drainage, slopes, expansion joints and all projections, including equipment.
5. Key plans on all floor plans and section drawings, where appropriate.
6. Building Sections as required to show spatial organization of building but no less than one longitudinal and one transverse.
7. Building elevations. All building elevations shall be fully developed, and hidden elevations shall be shown. Elevations shall be shown in a sequence as unfolded from a certain point.
8. Full height wall sections indicating dimensions, flashing, anchorage, reinforcing, coursing, cladding, and all other conditions at wall, roof, foundation, interior floors.
9. Exterior details, for roofing, flashing, expansion control and construction joints, waterstops and other details showing all conditions both vertical and horizontal, including schedules.
10. Door, window, entrance, and storefront, schedules, and details.
11. Vertical circulation plans, sections and details including stairs, elevators, conveyors, dumbwaiters.
12. Interior elevations of all significant and typical spaces.
13. Interior details including casework, paneling surfacing and acoustical treatment.
14. Reflected ceiling plans coordinated with fire protection, mechanical and electrical drawings, and ceiling details.
15. Schedules (clearly define new or existing)
 - a. Doors
 - b. Equipment, e.g. for services
 - c. Partitions
 - d. Finishes

(e) Structural drawings shall indicate the following:

1. Indicate or refer to location of geotechnical exploration data and reports related thereto.
2. Foundation plans with bottom grades showing layout of all footings, walls, slabs on grade including reinforcing, grade beams, and columns; include design soil bearing pressures and live loads.

3. Floor and roof plans of structural systems including framing, grades of finished floors and depressed areas, with locations and dimensions for all openings. Also indicate design floor loads.
 4. Complete foundation wall elevation and typical sections, with reinforcing indicating location, dimensions and grades for all footings, steps and wall openings.
 5. Complete details and sections with dimensions for all construction including expansion and construction joints, reinforcing and other embedded items.
 6. Schedules (with dimensions) for all lintels, beams, joists, and columns.
 7. Unless detailed on the Drawings, the following information shall appear in the general notes: class and 28 day strength of concrete for each portion, structural steel and concrete reinforcing design stresses for each type of structural member, concrete cover for each type of structural member, shrinkage and temperature steel requirements, reinforcing laps for main reinforcing and temperature steel; bendpoint, cutoff, and hook locations for all members, minimum beam and lintel bearing. Reinforcing steel fabrication shall be in accordance with most recent ACI, "Manual of Standard Practice for Detailing Reinforced Concrete." Structural steel fabrication shall be in accordance with the AISC "Manual of Steel Construction."
- (f) Fire protection drawings shall indicate standpipe systems, sprinkler systems, suppression systems, access panels, fire pumps, accessories, and piping. All piping, equipment, fixtures and devices shall be located and sized. Design criteria shall be provided on the drawings in accordance with NFPA requirements.
1. Fire protection work, other than site work, shall not be combined on the same sheets with the Plumbing, HVAC, Electrical, or other drawings except with the prior approval of the Owner.
- (g) Plumbing drawings shall indicate the following:
1. All work done by the Plumbing Subcontractor, which includes all water, gas, air, vacuum, medical gases, sanitary and storm wastes, and accessories. Include foundation drain lines unless established as the work of the CM at Risk and shall not be indicated on the Plumbing Drawings. Site utilities shall be indicated on the utility drawings.
 2. Plumbing work, other than site work, shall not be combined on the same sheets with the Fire Protection, HVAC, Electrical, or other drawings except with the prior approval of the Owner.
 3. Trapping and venting of all plumbing fixtures including floor drains.
 4. Water and gas supply sources, storm and sanitary discharge mains.
 5. All piping shall be carefully sized and all sizes shall be indicated on drawings and riser diagrams. Indicate all directions of flow and pitch on piping.

6. All accessories, valves, fixtures including all drinking fountains, grease traps for kitchen waste and all necessary panels, identified as to type and size.
7. All piping and connections required for other trades (e.g., kitchen equipment, HVAC make-up water, etc.).
8. Acid waste, vents and neutralization systems for laboratories.
9. Plumbing Legend and/or graphical symbols on the first sheet of the Plumbing Drawings in accordance with the American National Standards Institute (ANSI).
10. Plumbing riser diagrams for structures two or more stories in height above the ground level.
11. Domestic water booster pumps, boiler feed water, meter location, hose bibbs, and wall hydrants.
12. Domestic hot water: storage tanks, piping material, hanger details.
13. All required access panels shall be indicated.
14. Backflow preventors and cleanouts. Verify that access and clearance provisions for periodically inspected devices, including backflow prevention, are adequate to satisfy requirements of inspecting agencies.

(h) Heating, Ventilating and Air Conditioning Drawings shall indicate the following:

1. HVAC work, other than site work, shall not be combined on the same sheets with Fire Protection, Plumbing, Electrical, or other drawings except with the prior approval of the Owner.
2. All piping and ductwork systems shall be located and sized. All ductwork shall be shown double line.
3. All systems shall be sized at all reductions and riser diagrams of piping and duct systems shall be indicated.
4. All directions of flow and pitch on piping, and direction of flow, volumes for duct systems shall be indicated.
5. All equipment shall have sufficient servicing and/or replacement space indicated on drawings.
6. All equipment, accessories, valves and dampers with all necessary access panels, identified as to type and size. Access panels, where required for access to valves and dampers shall be indicated on drawings.
7. Cooling system pumps, chillers, cooling towers, air handling units, ductwork system and dampers, fan details, temperature control system, air and hydronic balancing equipment, and schedules shall be indicated.
8. Cooling tower design shall be indicated on the drawings showing site location, elevations and floor plan of equipment layout and typical flow diagram as related to the total HVAC system.
9. All fire and smoke dampers, access panels and doors.
10. Mechanical room designs:

- a. Vent pipes for safety valves, relief valves, back pressure valves and tanks shall be extended above flat roofs in accordance with all governing authorities.
- b. In all designs for boiler and refrigeration plants, include a complete floor plan indicating location of all major mechanical equipment and sufficient service space.
- c. In designs of new and/or replacement boiler and refrigeration plants, provide a flow diagram detailing steam or hot water distribution systems, return systems, including all existing equipment and their function, as well as any proposed expansions with all necessary instrumentation and controls.

(i). Electrical Drawings shall indicate the following:

- 1. Site utilities shall be indicated on separate electrical site drawings, unless ample space is available on common site for utility drawings.
- 2. Electrical work, other than site work, shall not be combined on the same sheets with Fire Protection, Plumbing, HVAC, or other drawings except with the prior approval of the Owner.
- 3. General arrangement: Outline layout of each floor. Typical sections through the structure shall be indicated when necessary to define requirements, floor and ceiling heights, elevations, and type construction, including concrete pads shall be indicated. Indicate interface with other systems. Identify any work by other trades.
- 4. Interior lighting system: Light fixture schedules, circuiting location and mounting heights of all fixtures, receptacle and switch outlets, sizes and types of all lamps, conduits, all other accessories and riser diagrams shall be indicated on drawings. Indicate details and method of supporting electrical fixtures and conduits. Designer shall specify that all electrical lighting fixtures be supported from the building structure, and shall be independent of ducts, pipes, ceilings and their supporting members. Comply with seismic design criteria.
- 5. Power system: Locations, types and method of control for all motors, heaters, appliances, controllers, starters, branch circuits, feeder conductors and conduits. Indicate riser diagrams. Show details and indicate method of supporting electrical conduit. For larger projects, thermostats and control wiring are normally covered under the HVAC sub-contract, assure coordination.
- 6. Fire Alarm, Data, Communications, CATV/CCTV Systems: Locations and types of all devices, outlets and equipment, service connections, wiring diagrams, all other essential details.
- 7. Services: Location and details of all services, whether overhead or underground, feeder sizes, plans and elevations of switchgear and

- transformers, metering and service switchboard arrangements, wiring and ground fault diagram and bus ducts.
8. General and sub-stations: Location, size, method of connection and protection of all generators, transformers, exciters, motor generators, switch gear, and associated equipment, current characteristics and equipment capacities. Indicate equipment connections by means of one line and/on wiring diagrams and schedule all major items of equipment and all instruments.
 9. Underground work: The size and locations of manholes and types of cables, number, size, and location of ducts, locations, sizes and types of cable supports, fireproofing, duct line profile, and one line diagram of connections. All underground chambers, including manholes and pull-boxes, shall be constructed of cast in place or one piece pre-cast concrete.
 10. Pole line work: if required as contract work, indicate location, length, treatment and class of poles, guying, cross arms, insulators, circuiting, transformers, protective and switching devices, lightning arresters, special structures, diagrams, current characteristics and grounding.
 11. Exterior lighting: Location, size, and type of transformers, luminary, poles, light standards, cables, ducts, and manholes, details of control equipment and connection diagrams.
 12. Emergency system details including transfer switch, type of fuel.
 13. One line diagram indicating load KVA, and available short circuit amperes at each transformer, switchboard, distribution panel board, branch circuit panel board, and at major pieces of equipment.
 14. Riser diagrams for all systems.

7.7.9 Project Manual Requirements:

- (a) The format for the Project Manual, including its technical specifications shall be in accordance with the current CSI MasterFormat with separate sections for each of class of work required by M.G.L. c. 149 §44F.
- (b) The following general information applies to the development of final Specifications:
 1. Describe the extent of the work, the materials and workmanship, and include the work under the proper section. If any portion of the work included in a section of the Specifications is to be performed by a trade covered by another section, there shall be clear and distinct cross-referencing between the sections. Merely to state “by others” is not acceptable.
 2. For each item of material or equipment, the specifications shall provide for a minimum of three named brands of material or equipment and the words “or equal” or a description of material or equipment which can be met by a minimum of three manufacturers or producers, and the words “or equal.” Proprietary products shall not be specified except as provided by M.G.L. c.

- 30, § 39M; however, when they are specified, proprietary specifications are subject to the “or equal” provisions of M.G.L. c.30, § 39M.
3. Specify materials mined or manufactured in Massachusetts first and the United States of America second whenever possible.
 4. Do not use general clauses intended to be all-inclusive in lieu of complete descriptions.
 5. Do not duplicate standard requirements that are contained in the contract form.
 6. Use consistency throughout. The word “will” shall be used to designate what the Owner, Authority, Owner’s Project Manager, Commissioning Consultant, or the Designer can be expected to do, and the word “shall” shall be used to designate what is mandatory for the CM at Risk or subcontractors to do.
 7. Use the same term throughout for the same subject and the term shall be the same as that used on the drawings.
 8. Do not use the term “etc.”
 9. Avoid such terms as “to the satisfaction of the Designer,” “as directed by the Designer,” “as approved” and “as required.”
 10. Specify work in appropriate Sections according to local trade jurisdiction.
 11. Avoid the use of the following symbols:

<u>Symbol</u>	<u>Use Instead</u>
#	number, no., or pounds
%	percent
"	inch or in.
x	by
'	feet or ft.
o	degree
/	per or at

12. In sections for which filed sub-bids are required, refrain from using such terms as “the Contractor,” the “Heating Contractor,” or “the Plumbing Contractor,” but where necessary for clarity refer to the “HVAC Subcontractor,” the “CM at Risk” and the like.
13. Do not give numbers both in words and figures. Numbers less than 10 shall be written in words, 10 and higher numbers shall be written in figures. In expressing dimensions, figures such as 2 in., 16 in., 7 ft., 6 in., shall be used.
14. Each filed sub-bid section shall detail all labor and materials required by the particular sub-trade and list, by number, those drawings (and only those drawings) indicating work of that sub-trade. In addition, list drawings indicating work of a particular trade that appears on drawings that are not customarily included in the work of the trade, when applicable.
15. Do not specify that a product or system shall require prequalification or advance approval prior to bidding.

16. Established unit price items shall be used for work categories which cannot be ascertained for exact quantities in bid documents (e.g. earthwork removal and/or replacement items). In such cases, the Designer shall establish ranges of quantities with associated unit price values for each range. Unit price values shall be established for added work, for deleted work, for base bid quantities when conditions so-suggest. Unit price values shall be ascertained through consultation with cost estimators and the CM at Risk, be current, equitable, and well defined as to elements of work, overhead, like issues to be encompassed. Established unit prices shall be published within the applicable technical specification sections, and referenced from general conditions as being operative as the basis for determining values to be used for payment or recovery for change order work.
17. Staging, scaffolding, cutting and patching, refuse collection and disposal, demolition work and cleaning task, allocation policy and proposed language shall be carefully assigned to avoid duplication or omission.
18. A final draft of Project Advertisement, Notice to Bidders, Instructions to Bidders, Contract Forms, General Conditions, Supplementary General Conditions, and other “front end” documents shall be included in the 90% construction documents submittal, along with a final version of all text to appear in Division 1, General Requirements. The Designer may defer insertion of final advertising / bid dates and wage rates, understanding that they are to be established and inserted immediately prior to release of documents for bidding.

7.7.10 Construction Cost Estimate Requirements

- (a) The Designer shall provide the construction cost estimates described in Articles 7.7.4 and 7.7.6 in accordance with the following provisions:
 1. The Designer shall review its construction cost estimate in comparison with the detailed construction cost estimate, and any update cost estimates, provided by the CM at Risk and shall work in good faith and in cooperation and coordination with the CM at Risk to reconcile any differences between the cost estimates, to clarify assumptions upon which the cost estimates are based and to address any concerns or questions with the cost estimates that are raised by the Owner, the OPM, the CM at Risk or the Authority. If the Designer is unable to reconcile all differences between the two construction cost estimates with the CM at Risk, then the Designer shall provide a detailed explanation of the differences to the Owner and the Authority. If, in any case, the agreed-upon, reconciled construction cost estimate exceeds the Project Construction Budget, the Designer shall cooperate with the Owner, the OPM, and the CM at Risk in identifying, specifying and recommending changes in materials, equipment, component systems and types of construction, or other adjustments in the scope or materials selections for the Project, including

contingencies or alternative bid items, so as to facilitate revision of the design of the Project to reduce the cost of construction so as to comply with the Project Construction Budget.

2. Cost estimate data shall be organized to identify elements of project work which may be proposed to be advanced under separate construction phases and/or separate bidding packages. When so proposed, estimates shall develop cost data relative to corresponding bidding and work execution dates established in project schedules.
3. Cost estimates shall be projected to the mid point of the construction period.
4. The summary sheets shall contain the following:
 - a. The date that the estimate was prepared. (Value Date).
 - b. The anticipated bid date.
 - c. The project and contract number.
 - d. The title and location of the project.
 - e. The name of the Designer.
 - f. The name of the Estimator.
 - g. The site work cost (including all utilities).
 - h. The building cost (including fixed equipment).
 - i. The estimated construction cost of each Phase of the work, totaled.

7.7.11 The Designer shall participate in a final review of the Construction Documents with the Owner, the Owner's Project Manager, the Commissioning Consultant, and the CM at Risk, and the Designer shall incorporate such changes as are necessary to satisfy the Owner's review comments.

7.7.12 Guaranteed Maximum Price ("GMP")

- (a) When the Construction documents are 60% complete as determined by the Owner, or at such later time as may be designated by the Owner, the Designer shall prepare a fully coordinated set of the then-current Construction Documents, which shall be delivered to the CM at Risk and shall be the basis of the CM's GMP proposal.

- (b) The Designer shall provide technical assistance to the Owner and the OPM in the negotiation and development of a GMP with a CM at Risk in accordance with M.G.L. c. 149A, §7, that is acceptable to the Owner. The Designer shall meet with the Owner, OPM, and the CM at Risk to review the GMP proposal and the written statement of its basis. If the GMP proposal submitted by the CM at Risk exceeds the Construction Budget, the provisions of Articles 4.10.4 and 4.10.5 shall apply.
- (c) The Designer shall provide technical assistance to the Owner and the Owner's Project Manager in the negotiation, preparation and execution of any amendments to the Owner-CM at Risk contract, including, but not limited to, the Guaranteed Maximum Price ("GMP") amendment pursuant to M.G.L. c.149A, § 7 and any separate amendment for any construction work commenced before execution of the GMP amendment pursuant to M.G.L. c.149A, §7(b)(3).

7.8 Bidding Phase

- 7.8.1 The Designer shall, when authorized by the Owner, prepare for reproduction and distribution the construction bid documents required for the solicitation and receipt of statements of qualifications and bids from Trade Contractors. The Designer shall prepare all addenda (to include bidder questions and Designer responses), subject to the Approval of the Owner. The Designer shall attend the pre-bid conference if one is scheduled, taking note of all questions asked. Relevant questions submitted in writing shall be answered by the Designer by means of written addenda to the bid documents as required. The Designer shall attend each bid opening of the Trade Contractors (and of other bidders if necessary) and shall, within five working days of the respective bid opening dates, advise the Owner in writing of the Designer's opinions as to the bids of Trade Contractors (and of other bidders if necessary).
- 7.8.2 The Designer shall receive all inquiries relating to the bid documents and, when necessary, answer questions by preparing and issuing written addenda. The Owner shall review and approve all such addenda prior to issuance to bidders.
- 7.8.3 There may be multiple bid packages for the Project. Multiple bid packages may be assembled and bid concurrently or consecutively as a portion of the Project. Portions of the Project may be bid separately from other portions. The Designer shall appropriately staff and structure its design and construction phase performance to assist the Owner in the preparation, issuance, bidding and negotiation, if any, of so-called early bid packages as provided in G.L. c. 149A, § 7(b)(3).
- 7.8.4 If the Project has to be re-bid, or the GMP Amendment must be re-negotiated and amended because of a defect in the bid documents prepared by the Designer or in procedures proposed by the Designer, the Designer shall correct the defect and take the necessary actions for re-bidding the Project on proper bid documents without any additional compensation to the Designer.

- 7.8.5 The Designer shall review alternates and make written recommendations to the Owner as to their acceptance.
- 7.8.6 If the Owner executes a GMP Amendment for an amount that exceeds the amount established in the Project Construction Budget, such an award will not affect the Fee for Basic Services.

7.8.7 Trade Contractor Selection Process

(a) Trade Contractor Prequalification pursuant to M.G.L. c. 149A, §8(c)

1. The Designer shall participate as a member of the Owner's Trade Contractor Prequalification Committee established by the Owner pursuant to M.G.L. c.149A, § 8(b).
2. The Designer shall review the information provided by the CM at Risk describing the work to be required of each Trade Contractor and shall assist the Owner in the preparation of the Request for Qualifications for Trade Contractors to be used to solicit responses from eligible Trade Contractors and to prequalify Trade Contractors for participation in the Project.

(b) Request for Bids for Trade Contractor Services pursuant to M.G.L. c. 149A, §8(g)

1. The Designer shall assist and advise the Owner in the preparation of the Invitation for Bids for Trade Contractor services in accordance with the provisions of M.G.L. c. 149A, §8.
2. The Designer shall attend all pre-bid conferences and meetings.

(c) Trade Contractor Bid Review

1. The Designer shall attend all bid openings and shall review all Trade Contractor bids in conjunction with the Owner's Project Manager and CM at Risk to determine responsiveness, completeness, accuracy, price and conformance to the requirements of M.G.L. c.149A, § 8(g)-(i), and to provide technical guidance to the Owner regarding the acceptance or rejection of any Trade Contractor bid. Within five business days after the respective bid opening dates, the Designer shall advise the Owner in writing of the Designer's opinions as to the bids of Trade Contractors (and of other bidders if necessary).

7.8.8 Selection of Subcontractors Who Are Not Trade Contractors pursuant to M.G.L. c.149A, § 8(j) ("Non-Trade Contractors")

(a) Non-Trade Contractor Bidding

1. The Designer shall review the detailed bidding information developed by the CM at Risk in accordance with M.G.L. c. 149A, § 8(j) for accuracy, completeness, coordination of scope and conformance with the construction documents.

(b) Non-Trade Contractor Bid Review and Award

1. The Designer shall attend all bid openings and scoping meetings if permitted or otherwise allowed by law, and, in conjunction with the Owner's Project Manager and CM at Risk, the Designer shall review all Non-Trade Contractor bids for responsiveness and completeness and advise the Owner on the acceptance or rejection of any Non-Trade Contractor bids by the CM at Risk. The Designer shall, in conjunction with the OPM, attend all final scope and negotiation meetings conducted by the CM at Risk. The Designer shall, within five working days of the respective bid opening dates, advise the Owner in writing of the Designer's opinions as to the bids of Non-Trade Contractors.

7.9 Construction Administration Phase – Obligations During Construction: Following the execution of the Owner-CM at Risk Agreement, the Designer shall undertake certain of the obligations of administering the Owner-CM at Risk Agreement on behalf of the Owner, provided that Designer shall not be subject to provisions of the Owner-CM at Risk Agreement that would have the effect of expanding Designer's responsibilities or liabilities under this Contract without Designer's written consent. Services during this phase include, but are not necessarily limited to:

- 7.9.1 Upon commencement of construction activities for the Work or early bid packages or at times established in Project schedules, the Designer shall:
- (a) Furnish the CM at Risk with information for establishing lines and grades and such supplemental drawings as are reasonably needed to implement the intent of the Construction Contract Documents;
 - (b) With reasonable promptness and in accordance with schedules agreed upon by the Designer and CM at Risk, observe testing when required under this Contract, and review and act upon samples, schedules, shop drawings and other submissions from the CM at Risk;
 - (c) Prepare, maintain and update logs for all submittals;
 - (d) Visit the site at intervals appropriate to the stage of construction, weekly or as otherwise agreed to by the parties, and observe the progress of the Work, issue written progress reports, and attend job meetings, and review and respond to meeting minutes prepared by the Owner's Project Manager, and to determine in general if the Work observed is being built in a manner indicating the Work when completed will be in accordance with approved Construction Contract Documents;

- (e) Collaborate with the on-site Project Representative of the OPM to identify and monitor issues of concern relative to the progress of the Work, and establish communications processes to help assure that matters of mutual concern are exchanged on a timely basis with one another, the OPM, CM at Risk, Commissioning Consultant, and Owner;
- (f) On a weekly basis, make specific recommendations on rejection of any Work observed by the Designer that fails to conform to the Construction Contract Documents, and observe corrected Work;
- (g) Require each Subconsultant engaged in accordance with Article 5 to make visits weekly or as otherwise agreed to by the parties during the progress of any work to which that Subconsultant's services relate, and to report upon it in writing to the Designer;
- (h) Recommend actions to be taken which may include condemnation or rejection of any work that the Designer determines fails to conform to the Owner- CM at Risk Agreement;
- (i) Review and recommend appropriate action for proposed requests for changes and where required by the Owner, prepare documents associated with requests for a change in any Construction Contract Documents. Compensation for change order work by the Designer shall be determined in accordance with Article 10;
- (j) Conduct semi-final and final inspections of the Project and report the results of such inspections in writing to the Owner;
- (k) In association with the Commissioning Consultant, review the report by such Commissioning Consultant on the balancing of air and water circulation systems;
- (l) In association with the Commissioning Consultant, review the report by such Commissioning Consultant on the setting and adjustment of automatic controls;
- (m) In a timely manner, decide all questions regarding interpretation of, or compliance with, the Construction Contract Documents, except as the Owner may in writing otherwise determine;
- (n) In association with the Commissioning Consultant, review the recommendations of such Commissioning Consultant for requirements upon operating and maintenance documents and building user training events and instructional media as established in the Construction Contract Documents; such Commissioning Consultant or OPM shall coordinate involvement of contracting parties, the Designer, and Owner;
- (o) Furnish the Record Drawings as submitted by the CM at Risk in accordance with 7.9.3, and other required documents;

- (p) Assist the Owner in providing the written CM at Risk Evaluations required of the Owner pursuant to M.G.L. c.149 §44D(7) at the completion of approximately 50% of the Construction Phase on forms prescribed by M.G.L. c.149 §44D(16);
- (q) Perform inspections of the work as necessary to prepare a punch list identifying each incomplete or deficient Work item and performing re-inspections to authorize removal of satisfactorily completed Work items from the punch list, or to determine that the Project is complete. In association with the OPM, a cost shall be assigned to each incomplete or deficient Work item when it has been determined that the Project has reached Substantial Completion; and
- (r) Receive from the CM at Risk all maintenance and operating manuals, occupancy permits, guarantees and other similar relevant materials.

7.9.2 The Designer shall submit to the Owner's Project Manager within 48 hours all requisitions for payment submitted by the CM at Risk in the form required by the Owner. The Designer may establish procedures with the CM at Risk for advance notification of requisition and/or draft version processing. With respect to each such requisition, the Designer shall certify to the best of its knowledge that the percentage of Work included in the requisition is accurate and that the work performed is in accordance with the Construction Contract Documents. In the event the Designer does not approve the requisition exactly as submitted by the CM at Risk, the Designer shall forward it for payment to the Owner's Project Manager dated and signed with corrections and with an accompanying letter of explanation setting forth the Designer's objections and recommended changes. The Designer shall coordinate the required visits of its own staff and those of its Subconsultants, to the construction site so as to enable it to submit to the Owner's Project Manager the CM at Risk's monthly requisition for payment. Timely payments to the CM at Risk are required by M.G.L. c. 30, § 39K. Therefore, the Designer shall establish procedures to help assure either immediate mail or messenger delivery of the requisition for payment to the Owner's Project Manager, and shall process requisitions for payment within five business days after receipt of the same, provided the CM at Risk has submitted a full and complete requisition for payment in the correct form.

7.9.3 Prior to issuance of the Certificate of Substantial Completion, the Designer shall obtain from the CM at Risk as-built drawings, including drawings showing the actual installation of the site utilities, plumbing, heating, ventilating and electrical work under the Owner-CM at Risk Agreement, and recording all changes. The Designer shall ascertain that changes authorized by change orders are shown on the CM at Risk's as-built drawings, but Designer shall be entitled to rely upon the accuracy and completeness of the CM at Risk's as-built information, and shall forward such to the Owner as Record Drawings.

7.9.4 Issue the Certificate of Substantial Completion of Construction.

7.9.5 The Designer shall meet with the Owner monthly during this Phase.

7.10 Completion Phase: Upon acceptance of the Certificate of Substantial Completion of Construction by the Owner, the Designer shall thereafter provide the following services:

7.10.1 With respect to a completed Project, preparing a Certificate of Final Completion.

7.10.2 With respect to a punch list, re-inspecting the work up to three times in order to determine that the punch list work is satisfactorily completed.

7.10.3 Reviewing and certifying the CM at Risk's Application(s) and Certificate(s) for Payment as necessary.

7.10.4 Attending meetings as reasonably necessary in the opinion of the Owner or Owner's Project Manager, unless such meetings involve continued discussions of incomplete or deficient work and the Basic Services punch list site visits have been expended. In such instance, the meetings shall be paid for as Extra Services.

7.10.5 Using the as-built information maintained by the CM at Risk during construction referred to in Article 7.9.3, and revising the applicable original reproducible drawings and electronic media drawings on the basis of the as-built drawings, provided that Designer shall be entitled to rely upon the accuracy and completeness of the CM at Risk's as-built information. Upon completion of the required drafting and editing, provide one set of mylar reproducibles, two sets of prints and two (2) electronic version copies to the Owner which shall become the property of the Owner. The cost for printing the mylar reproducibles and two sets of prints are Reimbursable Expenses.

7.10.6 Ten (10) months after the date of substantial completion, performing one (1) site inspection and preparing a list of construction warranty deficiencies. The Designer shall consult with the Commissioning Consultant upon the acceptability of warranty compliance requirements and response actions.

7.10.7 Informing the Owner in writing, through the Owner's Project Manager, of all such warranty deficiencies that should be addressed.

7.10.8 Performing one (1) site inspection within a further sixty (60) days to see that all such warranty deficiencies have been corrected.

7.10.9 Evaluation of CM at Risk: The Designer shall assist the Owner with providing the written CM at Risk Evaluations required of the Owner pursuant to M.G.L. c.149 § 44D(7) within 70 days of the date of Substantial Completion for construction, on forms prescribed by M.G.L. c.149 § 44D(16).

7.11.10 The Designer shall assist the Owner in providing the written summary report on the Project to the Office of the Inspector General as required by the provisions of 945 CMR 2.09

7.10.11 Two (2) suitably bound, legible copies of all original design and quantity calculations including those pertinent to change orders and shop drawings, if applicable, shall be

furnished by the Designer to the Owner at the conclusion of the Owner-CM at Risk Agreement.

MANCHESTER ESSEX REGIONAL SCHOOL DISTRICT

AGREEMENT FOR CONSTRUCTION MANAGER AT RISK SERVICES

OWNER - CONSTRUCTION MANAGER AGREEMENT

MSBA # 201506980010 MANCHESTER MEMORIAL REGIONAL SCHOOL DISTRICT

Awarding Authority: Manchester Essex Regional School District

This agreement ("Contract") is made as of the _____ day of _____ in the year two thousand and _____ by and between the Manchester Essex Regional School District (the "Owner"), and _____ W.T. Rich Company, Inc. _____ hereinafter called the "Construction Manager or CM", with a principal place of business at 29 Crafts Street, Suite 300, Newton, MA 02458.

The terms used in this Owner - Construction Manager Agreement, are defined in the General Conditions of the Contract and in this Owner – Construction Manager Agreement.

The scope of the work is generally described as follows:

The performance of preconstruction services and construction services, during the design and construction of a new Manchester Memorial Elementary School. The new building is a pre-kindergarten through 5th grade elementary school with a design enrollment of 335 students. The project will be a phased, new building located on the existing Memorial School site. The new school will be a two story, approximately 77,000 sf building with a footprint of approximately 50,000 sf (remainder of square footage would be second floor classroom space). This allows for additional vehicular circulation and parking on site while maintaining the existing traffic patterns. Pedestrian access to the building would be enhanced and new play areas and outdoor learning environments would be created.

Due to site constraints and the existing structure, the District is anticipating to acquire approximately six (6) modular classrooms to accommodate students that will be displaced by the demolition of a portion of one classroom wing while the remaining Memorial students would remain in the existing school for the duration of the first phase of construction. Once the new, two-story classroom wing is complete, all students will move into the new space while the new core spaces and site improvements are constructed.

PRELIMINARY STATEMENT

A. Pursuant to M.G.L.c. 149A the Manchester Essex Regional School District ("Owner") is undertaking the Construction of the Manchester Memorial Elementary School (the "Project").

B. The Construction Manager ("CM") shall perform the obligations, responsibilities and liabilities of the Construction Manager under this Contract.

C. OWNER has engaged Dore & Whittier Management Partners (the "Project Manager"), under a

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separate agreement to assist OWNER in connection with the Project, as provided in M.G.L.c. 149A section 2. The Project Manager will assist the Owner in the administration and management of the Project during design and construction. The CM shall fully cooperate with the Project Manager including, but not limited to, complying with any instructions that the Project Manager may issue on OWNER's behalf.

D. OWNER has engaged the architectural firm of JCJ Architecture (the "Designer"), under a separate agreement to provide design services for the Project. The CM shall fully cooperate with the Designer including, but not limited to, complying with any instructions that the Designer may issue on the Project.

NOW, THEREFORE, in consideration of the mutual agreements and obligations of the parties set forth below, OWNER and the Construction Manager do hereby agree as follows:

Article 1. The Work.

1.1 The Construction Manager's Responsibilities. The CM shall perform the Work as required by the Contract Documents to construct the Project.

1.2 Site. The Site is shown in the Site Plans that accompanied the Request for Proposals for Construction Management Services issued by the Owner.

1.2.1 Site Inspection. By executing this Agreement, the CM acknowledges that it has visited the Site and has learned as much about the Site as may reasonably be learned from such an inspection. No information which would reasonably have been obtained by such a site inspection may serve as the basis for any change order proposal or claim for additional costs and/or additional time.

Article 2. The Contract Documents.

2.1 Contract Documents. The following documents forming the Contract, are incorporated by reference herein, and are referred to as the "Contract Documents".

- The Request for Qualifications for Construction Management Services for the Project, including amendments thereto.
- The CM's Response to the Request for Qualifications, as accepted by the Owner.
- The Request for Proposals for Construction Management Services for the Project, including exhibits and amendments thereto.
- The Construction Manager's Proposal, as accepted by the Owner.
- The Owner-Construction Manager Agreement, including amendments thereto.
- The General Conditions of the Contract.
- The Plans and Specifications prepared by the Designer, including Addenda.
- All Approved Change Orders/Contract Modifications issued after execution of the Owner Construction Manager Agreement.

Article 3. Relationship of the Parties.

3.1 CM's Obligation. The CM accepts the relationship of trust and confidence between OWNER and the CM established by this Agreement and covenants with OWNER to cooperate at all times with OWNER, the Project Manager, the Designer and any other consultants or project representatives engaged or employed by OWNER, and to utilize the CM's best skill, efforts and judgment to furnish efficient business administration and supervision; to furnish at all times an adequate supply of workers and materials; and, consistent with the requirements of the Contract Documents, to perform the Work in the best way and most expeditious and economical manner consistent with the interests of OWNER and to make every reasonable effort to achieve time savings and construction efficiencies with respect to the Work. The CM, in performing its services under this Agreement, is an independent contractor and is not an agent or employee of, or a joint venture with, OWNER. The CM shall work in harmony and cooperation with the OWNER, the Project Manager, the Designer, and separate contractors and other persons or entities engaged by OWNER or otherwise employed in connection with the Project, as well as other public agencies having jurisdiction with respect to the Project.

3.2 Standard of Performance. The CM represents that it is experienced and skilled in construction of projects of the type, magnitude and complexity described in the Contract Documents, that it is familiar with the special problems and requirements of construction of the type required for the Project and in the location of the Site, and that it will furnish a complete and fully operable Project as indicated by and reasonably inferable from the Contract Documents.

Article 4. Contract Time.

4.1 Commencement Date. The CM shall begin preconstruction and construction phase services pursuant to the terms and conditions included in written Notices to Proceed ("NTP") that are issued by the OWNER.

4.1.1 Preconstruction Services. The NTP for preconstruction services shall be issued within a reasonable time following execution of the Contract. It may, in OWNER's discretion, instruct the CM to begin only certain portions of the preconstruction services

4.1.2 Construction Services. The NTP for construction services shall be issued within a reasonable time following the execution of the GMP Amendment as defined in Paragraph 6.5.2, provided that, the OWNER intends to issue several NTPs that will authorize the CM to perform the construction of enabling packages of work prior to the execution of the GMP Amendment, as described in the Request for Proposals. When an NTP is issued prior to the execution of the GMP Amendment, OWNER may, in its discretion, limit the scope of the NTP in whatever manner it deems appropriate.

4.2 Substantial and Final Completion. The CM shall achieve Substantial Completion of the designated phases of the work and the entire Work, in accordance with Article 4.4.1, subject to any adjustments in the Contract Time approved by OWNER in accordance with the Contract Documents (the "Substantial Completion Date"). The CM shall achieve Final Completion of the Work, no later than 60 days after substantial completion of the entire work. The Substantial and Final Completion Dates for the phases of

work shall be subject to extensions of Time that may be approved by OWNER in accordance with the Contract Documents.

4.3 Time is of the Essence. The CM acknowledges that the times of Substantial Completion of the Work, Final Completion of the Work, any other milestones for completion of portions of construction, times for submitting proposals for contract modifications, and other times set forth in the Contract Documents are essential conditions of this Agreement.

4.4 Owner's Damages for Delay

4.4.1 Liquidated Damages. If the CM shall neglect, fail or refuse to achieve Substantial Completion of the Final Phase of the construction within the Contract Time, as such time may be adjusted in accordance with the provisions of the Contract Documents, the CM shall pay OWNER the amounts set forth in this Subsection 4.4.1 below, not as a penalty, but as liquidated damages to cover certain losses, expenses and damages of OWNER for such failure to substantially complete the Final Phase of the contract in a timely manner. The CM acknowledges that delay in Substantial Completion of the Project will cause Owner to incur administrative, professional, rental, storage, moving, transportation and other costs in the event of such delay. Delay in Substantial Completion will also require OWNER to incur additional costs for compensation to the Designer, the Project Manager and other consultants or contractors for extended or additional work on the Project. In light of the difficulty of determining the costs the Owner will incur, in the event of a delay to the Substantial Completion Date, the parties have agreed upon the liquidated damages stated below. The liquidated damages amounts that the Owner may assess for not achieving Substantial Completion for the following designated phase of the Work are as follows: \$2,500 per calendar day.

4.4.2 Actual Damages – Not applicable.

4.4.3 Except as otherwise expressly provided, none of the following shall constitute a waiver of the CM's or its surety's obligations to pay liquidated damages or actual damages, as provided in 4.4.1 or 4.4.2:

- (a) Acceptance of any portion of the Work or payment to the CM or its surety therefor;
- (b) Completion of a portion of the Work or the use or occupancy of a portion of the Work by OWNER or others;
- (c) OWNER's requiring or allowing the CM or its surety to complete the Work after the Substantial Completion Date has passed.

4.5 Phasing of the Work. A summary of the anticipated construction phases for the Project are as follows:

1. Pre-construction Services

a. **Schematic Design Phase – Lump Sum issued via Purchase Order**

- i. Pre-Construction services are anticipated to be performed between May 2018 and August 2018.

- ii. Deliverables will include: Schematic Estimate, Initial phasing and logistics plan, schedule, cash flow projections, attend project team meeting and any required public meetings, input and review of Schematic Design submission to MSBA.
- b. **Design Development and Construction Documents – Price Proposal**
 - i. November 2018 through June 2019
 - ii. Deliverables will include: Design Development Estimate, Two Construction Document Estimates at 60% & 90%, finalizing phasing, logistics, schedule, bidding (including prequalification of Trade Contractors), Early Release Packages (ERP) for long lead items, and attendance at project team meetings and any required public meetings, and prepare GMP.
 - iii. Enabling Phase. It is anticipated that the CM shall perform various services to solicit proposals for construction services and the purchase of long-lead time equipment, prior to the establishment of the Guaranteed Maximum Price (GMP) for the Project, in order to enable the construction to be undertaken and completed in a timely manner and the CM Enabling Phase services shall overlap with Pre-Construction services. The performance of Enabling Phase services are expected to occur is TBD.
- c. **Construction Phase Services**
 - i. Construction is expected to commence in the June of 2019 and continue through completion in 2021, or as developed and agreed upon during pre-construction.
- d. **Closeout**
 - i. The CM shall assist the owner and OPM with all required closeout documents, inspections, and other supporting material as required by MSBA.

4.5.1 The work will be performed on a phased schedule. Each phase of construction shall have a substantial completion date. On or before the substantial completion date for each phase, the CM shall turn over the completed work for use and occupancy by the Owner for its intended purpose. The CM and the Owner shall agree to a phased completion schedule that shall be incorporated into the Contract. That phased completion schedule shall be in accordance with Article 4.5.

4.5.2 The phased completion dates, as agreed to, shall be subject to extensions of time approved by the Owner, in the same manner as the Substantial Completion Date of the Entire Work may be subject to extensions of time.

4.5.3 In the event the CM fails to meet the Substantial Completion Date for a particular Phase of the Work, other than the date for the Substantial Completion of the Entire Work, and the Owner does not approve an extension to the phased Substantial Completion Date, the Owner shall be entitled to assess damages in accordance with Article 4.4, as applicable.

Article 5. Construction Manager's Services.

5.1 **Preconstruction Services.** Commencing upon the date of this Agreement, unless otherwise directed in a NTP issued by OWNER, the CM shall perform preconstruction services as provided in this Article and elsewhere in the Contract Documents. The CM's scope of services during the Preconstruction Phase is described in the Request for Proposals, a copy of which is incorporated by

reference into this Agreement. Preconstruction services shall be considered complete when all Preconstruction Services as described in the RFP have been achieved including all sub-filed trade and subcontractor bidding services and the completion and execution of a GMP.

5.1.1 Construction Planning. The CM shall attend regular Project meetings with OWNER, the Project Manager and the Designer. If requested by OWNER, the CM shall schedule and lead such meetings and keep (take) minutes of such meetings. The CM shall consult with OWNER, the Project Manager and the Designer concerning planning for construction of the Project. The CM shall make recommendations as to the purchase and assist in expediting the procurement of long lead items, which are required for the Project to ensure their delivery by the required dates. The CM shall review and, if appropriate, make recommendations with respect to the phasing of the Work, in conjunction with the needs of the Owner. The CM shall advise the Designer with respect to the division of the Work into subtrade categories to facilitate the development of bid and proposal packages bidding and awarding of subcontracts, taking into consideration such factors as economies, time of performance, availability of labor and materials, and provisions for temporary facilities.

5.1.2 Construction Services. The CM's scope of services during the Construction Phase is described in the Request for Proposals, a copy of which is incorporated by reference into this Agreement.

5.2 Preconstruction and Construction Services The CM shall perform its preconstruction and construction services, responsibilities and obligations concurrently as necessary during the term of this Agreement.

5.2.1 Design Review. The CM shall review, on a continuous basis, the development of the Drawings, Specifications and other design documents produced by the Designer. The CM shall consult with OWNER, Project Manager and the Designer regarding the selection of materials, building systems and equipment, and shall recommend alternative solutions whenever design details impact construction feasibility, schedules, cost or quality (without, however, assuming the Designer's responsibility for design) and shall provide value engineering services to OWNER. Without limitation, the CM shall review the design documents for clarity, consistency, constructability, maintainability/operability and coordination among the trades, coordination between the specifications and drawings, and sequence of construction, including recommendations designed to minimize adverse effects of labor or material shortages. The CM reviews shall be provided in writing with detailed notations on the drawings and specifications and coordinated with a detailed spreadsheet of the notations and recommended solutions in order to track the issues to final resolution. The CM shall attend meetings as necessary with the Designer, OWNER and the Project Manager in order to discuss and resolve all issues.

5.2.2 Master Development Schedule. The CM shall develop detailed project schedules, including a detailed phasing plan and logistics plan for the Work that allows the Owner to take use and occupancy of designated areas of the Work on a Phased basis, and in accordance with the milestone bid packages stated in Article 4.5 of this agreement. The CM will cooperate with the Project Manager during the development and analysis of these documents. The CM shall coordinate and integrate its Project schedules with scheduling information developed by the Project Manager and other parties. The requirements provided herein are in addition to and not in limitation of the CM's obligation to prepare and maintain the Baseline Critical Path Method (CPM) Schedule and other

schedules as provided in the Contract Documents.

5.2.3 Cost Estimates. The CM shall provide four detailed cost estimates to the Owner during the Contract, as follows:

1. Within thirty days: (1) after the completion of the Schematic Design Documents; (2) after CM has received the Design Development Documents; (3) after CM has received 60% Complete Construction Documents; (4) after CM has received 90% Complete Construction Documents. The CM shall prepare, for the review of the Designer and the Project Manager, and approval of OWNER, detailed estimates of the Construction Cost (hereafter defined) with supporting data including but not limited to unit costs of materials, equipment and labor hours required to complete all sections of the work. Estimates are to be prepared in Unifomat II, level 3 and CSI Master Format 6-digit format to level 3. As used herein, "Construction Cost" shall mean the total cost or, to the extent the Project is not completed, the total estimated cost of constructing the Project, including the Cost of the Work, the General Conditions Payment, Permit Fees, CM Contingency, and the CM Fee. The Construction Cost does not include costs of land acquisition, financing costs, Owner purchased furnishings and equipment, project manager fees or design fees. The CM shall provide value engineering analysis and recommendations during design and construction in order to maintain the limits of the project budget during design, and the Guaranteed Maximum Price (GMP), thereafter, and as requested by Owner.
- (b) The CM shall update and refine its estimate of Construction Cost at appropriate intervals agreed to by OWNER, the Designer and the CM.
- (c) Owner may, but shall not be required to, arrange for the preparation of its own periodic estimates of Construction Cost, to be performed by the Designer and/or the Project Manager. The CM shall work in good faith and in cooperation and coordination with the Project Manager and the Designer, and any other consultants involved in preparing estimates of Construction Cost, in order to reconcile any differences between cost estimates prepared by the CM and the cost estimates prepared by such other parties, to clarify assumptions upon which cost estimates are based, and otherwise to address any concerns or questions with respect to such cost estimates raised by the Designer, the Project Manager, OWNER or such other consultants. If the agreed-upon, reconciled estimate of Construction Cost exceeds the initial Construction Budget established by OWNER, the CM shall advise and cooperate with OWNER, the Project Manager and the Designer in identifying, specifying and recommending changes in, or additional specification of materials, equipment, component systems and types of construction, or other adjustments in the scope or quality of the Project (collectively, "Cost Reduction Alternatives"), including contingencies or alternative bid items, so as to facilitate revision of the design of the Project to reduce the Construction Cost so as to comply with the Owner's fixed limit of construction cost. Implementation of any Cost Reduction Alternative shall be subject to the approval of OWNER, and OWNER shall have the right, in its sole discretion, to choose which of the Cost Reduction Alternatives shall be implemented.
- (d) The process and responsibilities of the CM described in this Section 5 shall also apply to any separate cost limits within the Construction Budget that have been established by OWNER for certain phases, components or elements of the Work.

- (e) In addition to the detailed cost estimates of Construction Cost required under subparagraph (a), the CM shall upon request by the Owner, provide additional cost estimating services related to value engineering and for estimating costs related to Proposed Change Orders, at no additional cost to the Owner.

5.2.4 Permits and Approvals. Consistent with the General Conditions, the CM shall assist OWNER and the Designer in identifying all governmental permits, user fees, approvals and licenses of any kind which must be obtained and be met in connection with the construction and use and occupancy of the Project. The CM shall comply with all mitigation requirements in the permits that have issued for the Project.

5.2.5 Progress Reports. The CM shall furnish to the Owner's Project Manager monthly reports concerning the progress of the work which addresses: (a) compliance with the construction schedule, (b) status of major scopes of work being performed by the CM and subcontractors, (c) status of shop drawings, submittals, RFI's and material procurement, (d) manpower status, (e) safety/occurrences, (f) status of change orders, (g) 30 day look ahead, (h) MBE/WBE status updates, and (i) other matters relating to the progress of work as directed by the Owner's Project Manager or the MSBA.

5.2.6 Subcontracts. Unless the Owner authorizes the CM to self-perform any of the Work during construction, all Work shall be performed by the CM pursuant to Subcontracts awarded by the CM in accordance with the General Conditions of the Contract, particularly Appendix C: Procedures for Award of Subcontracts. The CM shall perform the overall management of the effort required to solicit and prequalify, receive sub bids and proposals and award subcontracts to the subcontractors who perform services hereunder, in accordance with the procedures specified in Appendix C, provided, however, that the Owner shall procure bids from Trade Contractors, as provide in Appendix C.

- (a) The CM shall consult with OWNER with respect to the procurement of bids for all subcontracts. The CM understands and agrees that OWNER or the Project Manager may, to the extent described in the General Conditions of the Contract, Appendix C - Procedures for Award of Subcontractors, participate in negotiations with Subcontractors and that OWNER and its representatives shall have access to any documents submitted by all Trade Contractors and Other Subcontractors to the CM, for review as to compliance with bidding and proposal procedures and other requirements of the Contract Documents. No Subcontract or other agreement between the CM and any third party for the furnishing or supply of any labor, materials or equipment in the performance of the Work shall be entered into without OWNER's prior written approval. Such written approval by Owner may take the form of an approval of a list of subcontractors and the dollar value of the subcontracts that CM intends to execute on this Project. Standard forms of subcontract agreement for all Trade Contractors are attached to the General Conditions of the Contract. The CM shall include all costs, with respect to the procurement of bids for all subcontracts, however the Owner shall pay for reproduction costs associated with the procurement of bids for Trade Contractors.

5.3 Construction Services. In accordance with the Notice to Proceed with Construction, the CM shall perform Construction Services as provided in these paragraphs and elsewhere in the Contract

Documents.

5.3.1 Construction Cost Monitoring. The CM shall provide a system of Project cost monitoring and reporting, and shall develop cash flow reports and forecasts in the format approved by OWNER upon the advice of Project Manager. The CM shall identify variances between actual costs and its estimated costs and shall immediately advise OWNER whenever projected costs exceed previous estimates.

5.3.2 Costs of Construction shall, in no event, exceed the Guaranteed Maximum Price that will be negotiated between CM and Owner.

5.3.3 Quality Assurance/Quality Control. In addition to the Owners independent testing and inspection services, the CM shall be responsible for insuring that adequate quality assurance and quality control programs are developed, implemented and enforced by the CM's staff and all Subcontractors.

5.3.4 Prevailing Wage. Work under this project is subject to the prevailing wage laws M.G.L.c. 149, s.26-27 H. The schedule for prevailing wages will be provided prior to the negotiation of the GMP. The CM and its subcontractors shall be responsible for anticipating the costs of future changes to the prevailing wage rates in their bid prices, provided that for change order work, the CM and the subcontractor will be entitled to apply the wage rates in effect at the time the extra work is performed.

5.3.5 CM Responsibility for Managing Construction. The CM shall be responsible for managing, coordinating, scheduling, and supervising all aspects of the construction of the Work, as described in this Agreement, the General Conditions, and all other Contract Documents.

5.4 General Requirements for Preconstruction and Construction Services

5.4.1 Design Related. CM shall provide Owner with recommendations and advice concerning design of the Project and modifications or alternatives. If the CM recognizes or discovers that any portion of the Drawings and Specifications are in error, unclear, ambiguous, or is at variance with applicable laws, the CM shall promptly notify the Designer, the Project Manager and OWNER in writing. By providing such notice, it is understood that the CM does not assume any obligations or responsibilities for the design of the Project, which obligations shall remain with the Architect. If, however, the CM proceeds with work based on Drawings and Specifications that CM knows are in error, unclear, ambiguous, or at variance with applicable laws, without providing such notice to the Designer and the Project Manager, the CM shall bear all costs related to the correction of such work.

5.4.2 CM's Organization and Staff. The CM shall establish a table of organization and lines of communication required to carry out the requirements of this Agreement in order to organize and direct the efficient construction of the Project. A listing of the CM's key staff who will perform services directly on this Project, has been provided in CM's Proposal in Form D and Form E and is incorporated herein. All key staff shall be available for and actively participate in the performance of the services provided under the Contract Documents. No substitution of any assigned and approved key staff shall be made by the CM without the prior written consent of OWNER in its reasonable

discretion. Before any such substitution is made, the CM shall submit to OWNER the qualifications of any proposed replacement. The removal or replacement, without OWNER's consent, of any of the key staff listed in CM's Proposal, other than as a result of retirement, disability, death or bona fide termination of employment, shall constitute a material breach of this Agreement. Within thirty (30) days after execution of this Agreement, the CM shall furnish to OWNER a detailed organizational chart (the "Organizational Chart") for approval by OWNER. Such chart shall reflect the same persons as set forth in the Proposal unless otherwise approved by OWNER.

5.5 Additional Projects and/or Services

5.5.1 Deleted

Article 6. Contract Price

6.1 Contract Price.

6.1.1 OWNER shall pay to the CM the Contract Price for the CM's satisfactory performance of the Contract and completion of the Work. The "Contract Price" initially consists of the Pre-Construction Services Fee described in Section 6.2.1. If the contract proceeds into construction, the contract price shall be comprised of the General Conditions Amount, described in Section 6.2.2, the Cost of the Work, as defined in Article 7, and the CM Fee as defined in Section 6.3. The total payments to the CM (the Contract Price) for the construction portion of the contract shall not exceed the Guaranteed Maximum Price ("GMP") to be agreed to by the Parties in a Contract Amendment that will be negotiated after Contract execution.

6.1.2 For Change Orders or Contract Modifications authorized by the Owner pursuant to the Contract Documents, the Contract Price shall be adjusted as provided in Section 6.2.4 below and Article VII of the General Conditions and not otherwise. After the GMP has been agreed to by OWNER and the CM, any increase or decrease in the Contract Price authorized by OWNER by execution of a Change Order, shall increase or decrease the GMP, accordingly.

6.1.3 The CM's Fee Proposal, submitted on Forms F, G, and H, designates the contract amounts for the Pre-Construction Services Fee, the Construction Manager's Fee, and the General Conditions. Forms F, G and H are made part of this contract at Exhibit 1.

6.2 Contract Price Breakdown

6.2.1 Preconstruction Services Fee. The Pre-Construction Services Fee is in the lump sum amount of \$ 146,000. From the commencement of the Preconstruction Period through the end of the Preconstruction Period, monthly payments for the Pre-Construction Services shall be in accordance with the Pre-Construction Services Fee specified on Exhibit 1, subject to a cap of \$ 18,000.

6.2.1.1 The Owner may, after execution of the Contract, authorize the CM to spend additional amounts for testing and exploratory work, during the Pre-Construction Phase.

6.2.1.2 In the event that conditions arise that cause the Pre-Construction Services to be extended, the Owner reserves the right to negotiate a revision to the monthly amount of the

Pre-Construction Services Fee, to reflect any changes in the CM's workload during the extended Pre-Construction Phase period. Those revisions may include a reduction in the value of the monthly Pre-Construction Services Fee, reflecting workload decreases or reductions in the number of the CM's personnel assigned to the Project.

6.2.2 General Conditions Amount. In consideration of the performance by the CM of the items of work described in the Contract Documents as General Conditions, OWNER shall pay to the CM, the lump sum amount specified on Exhibit 1, Form C, for General Conditions. The Amount of General Conditions is a lump sum amount of \$3,483,000. The total General Conditions amount provided with the CM proposal dated April 26, 2018 and as specified on Exhibit 1, Form B General Conditions is an estimate based on the facts of schedule and scope at the time of the CM Request for Proposals. Both parties agree to adjust this General Conditions amount as required based on the amended scope and schedule of the project at the execution of the GMP. The total dollar value for General Conditions Costs set forth in Exhibit 1 represents the maximum amount to be paid to the CM for all General Conditions Costs during the Construction Phase, unless Owner agrees to a Change Order that revises the cost items covered by General Conditions. Those revisions may include a reduction in the value of the monthly General Conditions Costs, reflecting decreases of the monthly General Conditions required on the Project.

6.2.3 Construction. During the Construction Period, monthly payments shall be made to the CM on account of General Conditions Costs. Prior to the commencement of construction services, the Owner and CM shall agree to a Schedule of Values for the payment of General Conditions during the Construction period.

6.2.4 General Conditions Mark-Up on Change Orders. If the Construction Manager performs additional work under a Change Order approved by OWNER, compensation, if any, due to the Construction Manager for General Conditions related to the Change Order work shall be computed as a percent markup on the direct costs of the Change Order, as described in Article VII of the General Conditions of the Contract.

6.2.5. General Conditions Breakdown. The CM shall provide a detailed breakdown of its General Conditions costs that complies with the General Conditions cost breakdown required by the Massachusetts School Building Authority. Payments for the CM's invoices for General Conditions costs shall not be processed until the CM has provided a breakdown of the General Conditions in a format that is acceptable to the Owner and the MSBA.

6.3 Construction Manager's Fee.

6.3.1. Construction Manager's Fee for Construction Services. In consideration of the performance of the Construction Services by the CM, OWNER shall pay to the CM a fee associated with performing the construction services in the amount identified on Exhibit 1 as Fee/Profit. The Construction Manager's Fee is a fixed percentage of 2% calculated based on the Total Guaranteed Maximum Price (inclusive of the fee) . Payment of the Construction Manager's Fee shall be made on a monthly basis. The amount of the monthly payments shall be determined by applying the percentage of the Cost of the Work approved for payment by OWNER , to the total amount of the Construction Manager's Fee set forth in Exhibit 1 and deducting from such value any amounts previously paid to

the CM on account of the Construction Manager's Fee. Owner and CM may alternatively agree to pay the Construction Manager's Fee based upon a fixed monthly amount, provided the cumulative amount of such monthly payments shall not exceed the Construction Manager's Fee.

6.4 No Retainage on Pre-Construction Services; Retainage on Payments during Construction. The Owner shall not assess retainage against the payments for the Pre-Construction Services Fee. Payment to the CM for the Cost of Work and the Construction Manager's Fee shall be subject to the procedures contained in Article VIII of the General Conditions, including a five percent retainage on monthly payments.

6.5 Guaranteed Maximum Price.

6.5.1 Upon the request of the Owner, the CM shall submit to OWNER a proposed GMP, which shall be the sum of the estimated Cost of the Work, the Construction Contingency (hereafter defined), the General Conditions Amount, the CM Fee for Pre-Construction Services, and the Construction Manager's Fee. The CM shall include with the GMP proposal a written statement explaining the basis of the GMP, in form and substance satisfactory to OWNER, which shall include at least:

- (a) a list of the Project design documents upon which the GMP proposal is based;
- (b) a list of allowances and a statement of their basis;
- (c) a list of any assumptions, qualifications and clarifications made by the CM and mutually agreed upon by the Owner, the OPM and the Designer in the preparation of the GMP proposal to supplement the information contained in the Project design documents;
- (d) a statement that the proposed GMP is based on the Baseline CPM Schedule and the Substantial Completion Dates for each phase of the work specified in this Agreement;
- (e) the proposed GMP, including a detailed statement of the actual and estimated Cost of the Work organized in accordance with the categories of work used in the CSI (Construction Specification Institute) format with quantities, units, and unit rates, Preconstruction and Construction General Conditions Costs, allowances, Construction Contingency, Preconstruction Services Fee and Construction Manager's Fee and other items that comprise the GMP;
- (f) a schedule of applicable alternate prices;
- (g) a schedule of applicable unit prices; and
- (h) the time limit for acceptance of the GMP proposal (which shall not be less than 90 days).

6.5.2 The CM shall meet with OWNER, the Owner's Project Manager and the Designer, as necessary, to review the GMP proposal and the written statement of its basis. In the event that OWNER, Owner's Project Manager or the Designer discover any inconsistencies or inaccuracies in the GMP proposal and accompanying information, they shall promptly notify the CM, which shall

make appropriate revisions thereto. OWNER may elect, in its sole discretion, to accept or not to accept the CM's GMP proposal, as such proposal may be revised by agreement with the CM and Owner. Prior to OWNER 's acceptance of the CM's GMP proposal, the CM shall not incur any cost to be reimbursed by OWNER, except as provided in this Contract or as OWNER may specifically authorize in writing. If OWNER accepts the CM's GMP proposal, OWNER and CM shall execute and deliver within fifteen (15) days after such acceptance, an amendment to this Agreement, in form acceptable to OWNER and the CM incorporating the GMP amount into the Contract (the "GMP Amendment").

6.5.3 If OWNER does not accept the CM's GMP proposal, OWNER may elect to solicit bids or proposals for the construction of the Project from other contractors, using any solicitation method or methods chosen by OWNER, consistent with applicable laws and procedures, or, if OWNER determines that it is in its best interest to do so, OWNER may enter into negotiations for a contract with one or more of the offerors that submitted proposals in response to the Request for Proposals for this Contract. If OWNER does not accept the CM's GMP proposal within the time limit for acceptance specified in the GMP proposal, as it may be extended by agreement of the parties, then this Contract shall terminate upon the completion of the CM's performance of the Work then in progress or upon notice from OWNER as provided in the General Conditions.

6.5.4 In the event the Contract is terminated for failure to agree to a GMP, Owner's obligations to CM shall be limited to those provided in Article XVII, para. 2 of the General Conditions, for a Termination for Convenience.

6.6 Changes in scope of the work. The contract language contained in this section will supplement General Conditions Article VII and take precedence over all other change order pricing contract provisions in the Contract Documents provided by the Owner, Designer, Owners Project Manager, and/or Construction Manager. It is understood that these contract provisions will govern the pricing and administration of all change order proposals to be submitted by the Construction Manager and/or the Trade Contractors and/or the Subcontractors and/or all other lower tier sub-subcontractors (all referred to as "Contractor" in this Section 6.6). In the event of a conflict between the other Contract Documents used for the Project, the change order pricing contract provisions in this Section 6.6 shall govern. Contractor agrees that it will incorporate the provisions of this Section 6.6 into all agreements with lower tier Contractors. It is understood that these change order pricing provisions apply to all types of contracts and/or subcontracts specifically including lump sum (or fixed price contracts), unit price contracts, and/or cost plus contracts with or without a guaranteed maximum. It is further understood that these change order provisions will apply to all methods of change order pricing specifically including lump sum change order proposals, unit price change order proposals, and cost plus change order proposals. Whenever change order proposals to adjust the contract price become necessary, the Owner will have the right to select the method of pricing to be used by the Contractor in accordance with the pricing provisions found in this Section 6.6. The options will be (1) lump sum change order proposal, (2) unit price change order proposal, or (3) cost plus change order proposal as defined in the following provisions.

6.6.1 Lump Sum Change Order Proposals: The Contractor will submit a properly itemized Lump Sum Change Order Proposal covering the additional work and/or the work to be deleted. This proposal will be itemized for the various components of work and segregated by labor, material, and

equipment in a detailed format satisfactory to Owner. The Owner will require itemized change orders on all change order proposals from the Contractor, subcontractors, and sub-subcontractors regardless of tier. Details to be submitted will include detailed line item estimates showing detailed materials quantity take-offs, material prices by item and related labor hour pricing information and extensions (by line item or by drawing as applicable.)

6.6.2 Labor: Estimated labor costs to be included for self-performed work shall be based on the actual cost per hour paid by the Contractor for those workers or crews of workers who the contractor reasonably anticipates will perform the change order work. Estimated labor hours shall include hours only for those workmen and working foremen directly involved in performing the change order work. Supervision above the level of working foremen (such as general foremen, superintendent, project manager, etc.) is considered to be included in the Markup Percentages as outlined in paragraphs 6.6.6 and 6.6.7 of this Section 6.6. No separate allowances for warranty expense will be allowed as a direct cost of a change order. Costs attributed to warranty expenses will be considered to be covered by the Markup Percentages as outlined in paragraphs 6.6.6 and 6.6.7 of this Section 6.6.

6.6.3 Labor Burden: Subcontractor Labor burden allowable in change orders shall be defined as employer's net actual cost of payroll taxes (FICA, Medicare, SUTA, FUTA), net actual cost for employer's cost of union benefits (or other usual and customary fringe benefits if the employees are not union employees), and net actual cost to employer for worker's compensation insurance taking into consideration adjustments for experience modifiers, premium discounts, dividends, rebates, expense constants, assigned risk pool costs, net cost reductions due to policies with deductibles for self-insured losses, assigned risk rebates, etc. Subcontractor shall reduce their standard payroll tax percentages to properly reflect the effective cost reduction due to the estimated impact of the annual maximum wages subject to payroll taxes. An estimated percentage for labor burden may be used for pricing change orders. However, the percentage used for labor burden to price change orders will be examined at the conclusion of the project and an adjustment to the approved change orders will be processed if it is determined that the actual labor burden percentage should have been more or less than the estimated percentage used.

6.6.4 Material: Estimated material change order costs shall reflect the subcontractor's reasonably anticipated net actual cost for the purchase of the material needed for the change order work. Estimated material costs shall reflect cost reductions available to the Contractor due to "non-Cash" discounts, trade discounts, free material credits, and/or volume rebates. "Cash" discounts (i.e. prompt payment discounts of 2% or less) available on material purchased for change order work shall be credited to Owner if the Contractor is provided Owner funds in time for Contractor to take advantage of any such "cash" discounts. The portion of any "Cash" discounts greater than 2% will not be considered "non-Cash" discount for purposes of this contract clause. Price quotations from material suppliers must be itemized with unit prices for each specific item to be purchased. "Lot pricing" quotations will not be considered sufficient substantiating detail.

6.6.5 Equipment: Allowable change order estimated costs may include appropriate amounts for rental of major equipment specifically needed to perform the change order work (defined as tools and equipment with an individual purchase cost of more than \$750). For contractor owned equipment, the "bare" equipment rental rates allowed to be used for pricing change order proposals shall be 75% of the monthly rate listed in the most current publication of The AED Green Book divided by 176 to

arrive at a maximum hourly rate to be applied to the hours the equipment is used performing the change order work. Further, for contractor owned equipment the aggregate equipment rent charges for any single piece of equipment used in all change order work shall be limited to 50% of the fair market value of the piece of equipment when the first change order is priced involving usage of the piece of equipment. Fuel necessary to operate the equipment will be considered as a separate direct cost associated with the change order work.

6.6.6 Maximum Markup Percentage Allowable on Work: With respect to pricing change orders, the maximum Markup Percentage Fee to be paid to any Subcontractor (regardless of tier) on work shall be a single markup percentage not-to-exceed ten percent (10%) of the net direct cost of (1) direct labor and allowable labor burden costs applicable to the change order or extra work; (2) the net cost of material and installed equipment incorporated into the change or extra work, and (3) net rental cost of major equipment and related fuel costs necessary to complete the change in the Work. The markup computed using the above formula shall be considered to be allocated 2/3 to cover applicable overhead costs directly attributable to the field overhead costs related to processing, supervising and performing, the change order work, and the remaining 1/3 to cover home office overhead costs and profit.

Example: *ABC Mechanical Company*
 Revised Emergency Shower to all SS per submittal process
 Labor = no additional cost
 Material = \$1,515.00
OH & P Markup (10%) = \$ 151.50
Subtotal = \$1,666.50
Bond (per original quote) 1.7% = \$ 28.33
Total = \$1,694.83

6.6.7 Maximum Markup Percentages Allowable on Work over seen by the Construction Manager: With respect to pricing the portion of change order proposals involving work performed by subcontractors, the maximum Markup Percentage Fee allowable to the Construction Manager supervising the subcontractor's work shall not exceed five percent (5%) of the net of all approved change order work performed by all subcontractors combined for any particular change order proposal. The markup computed using the above formula shall be considered to be allocated 2/3 to cover applicable overhead costs directly attributable to the field overhead costs related to processing, supervising and performing the change order work, and the remaining 1/3 to cover home office overhead costs and profit.

Example: *ABC Construction Manager Company Change Request*
 ABC Mechanical Company Quote = \$1,694.83
 Bond (@ .74%) on change only = \$ 12.54
 GL Insurance (@ 1%) on change only = \$ 16.95
OH & P Markup (@ 5%) on change only = \$ 84.75
CM Cost Total = \$1,809.24

6.6.8 No Markup on Construction Manager Bonds and Liability Insurance Costs: Change Order cost adjustments due to increases or decreases in bond or insurance costs (if applicable) shall not be subject to any Markup Percentage Fee. This includes: Builders Risk Insurance, General Liability Insurance, Payment and Performance Bonds (not trade contractors or subcontractors bonds), Other

Project Insurance as Required by Contract (subcontractor default insurance program costs).

6.6.9 Direct and Indirect Costs Covered by Markup Percentages: As a further clarification, the agreed upon Markup Percentage Fee is intended to cover the Contractor's profit and all indirect costs associated with the change order work. Items intended to be covered by the Markup Percentage Fee include, but are not limited to: home office expenses, branch office and field office overhead expense of any kind; project management; superintendents, general foremen; estimating, engineering; coordinating; expediting; purchasing; detailing; legal, accounting, data processing or other administrative expenses; shop drawings; permits; auto insurance and umbrella insurance; pick-up truck costs; and warranty expense costs. The cost for the use of small tools is also to be considered covered by the Markup Percentage Fee. Small tools shall be defined as tools and equipment (power or non-power) with an individual purchase cost of less than \$750.

6.6.10 Deduct Change Orders and Net Deduct Changes: The application of the markup percentages referenced in paragraphs 6.6.6 and 6.6.7 will apply to both additive and deductive change orders. In the case of a deductive change order, the credit will be computed by applying the sliding scale percentages as outlined in paragraphs 6.6.6 and 6.6.7 so that a deductive change order would be computed in the same manner as an additive change order. In those instances where a change involves both additive and deductive work, the additions and deductions will be netted and the markup percentage adjustments will be applied to the net amount.

6.6.11 Contingency: In no event will any lump sum or percentage amounts for "contingency" be allowed to be added as a separate line item in change order estimates. Unknowns attributable to labor hours will be accounted for when estimating labor hours anticipated performing the work. Unknowns attributable to material scrap and waste will be estimated as part of material costs.

6.6.12 Change Order Proposal Time and Change Directives: The Contractor's proposals for changes in the contract amount or time shall be submitted within seven (7) calendar days of the Owner's request, unless the Owner extends such period of time due to the circumstances involved. If such proposals are not received in a timely manner, if the proposals are not acceptable to Owner, or if the changed work should be started immediately to avoid damage to the project or costly delay, the Owner may direct the Contractor to proceed with the changes without waiting for the Contractor's proposal or for the formal change order to be issued. In the case of an unacceptable Contractor proposal, the Owner may direct the Contractor to proceed with the changed work on a cost-plus basis with an agreed upon "not-to-exceed" price for the work to be performed. Such directions to the Contractor by the Owner shall be confirmed in writing by a "Notice to Proceed on Changes" letter within seven (7) calendar days. The cost or credit, and or time extensions will be determined by negotiations as soon as practical thereafter and incorporated in a Change Order to the Contract.

6.6.13 Liability Insurance and Bonds: In the event the Contractor has been required to furnish comprehensive general liability insurance and/or performance and/or payment bonds as part of the base contract price, a final contract change order will be processed to account for the Contractor's net increase or decrease in comprehensive general liability insurance costs and/or bond premium costs associated with change orders to Contractor's base contract price.

6.6.14 Cost Plus Fee Agreements: In those contract situations where the Contractor (Design-Builder,

Construction Manager, Trade Contractor, Subcontractor or Sub-subcontractor) has entered into a cost plus fee with a guaranteed maximum contract arrangement where the basis of compensation is reimbursement for defined "Cost of the Work" plus either a stated percentage fee or fixed fee subject to an agreed upon contract guaranteed maximum price, the Contractor's total percentage fee or fixed fee to be paid under the terms of cost plus contract agreement shall be adjusted either upward or downward by the same percentage stated in the applicable portion of the cost plus fee agreement. The percentage markups to be applied for the pricing of change orders that will increase or decrease the contract guaranteed maximum price will be the percentages outlined in paragraphs 6.6.6 and 6.6.7 of this Section 6.6.

However, those percentage markups which are intended to cover field overhead and certain other direct costs attributable to the change order work will not apply to adjustments in the total adjusted fee payable to the Contractor under the cost plus fee portion of the contract agreement.

Cost Plus Fee Agreements: For example, if the contract utilizes a Fixed Fee, the base contract Fixed Fee will be adjusted by 1/3 of the net percentage markups included in all approved change orders. The remaining 2/3 of the net markups on approved change orders will be considered an adjustment to the Contractor's general conditions budget.

6.6.15 Unit Price Change Order Proposals: As an alternative to Lump Sum Change Order Proposals, the Owner or the Contractor (Design-Builder, Construction Manager, General Contractor) acting with the approval of the Owner may choose the option to use Contract Unit Prices. Agreed upon Contract Unit Prices shall be the same for added quantities and deductive quantities. Unit Prices are not required to be used for pricing change orders where other methods of pricing change order work are more equitable.

6.6.16 The Contractor will submit, within seven (7) days after receipt of the Owner's written request for a Unit Price Proposal, a written Unit Price proposal itemizing the quantities of each item of work for which there is an applicable Contract Unit Price. The quantities must be itemized in relation to each specific Contract drawing.

6.6.17 Contract Unit Prices will be applied to net differences of quantities of the same item. Such Contract Unit Prices will be considered to cover all direct and indirect costs of furnishing and installing the item including the subcontractor's Markup Percentage Fee.

6.6.18 Cost Plus Change Order Proposals: As an alternative to either Lump Sum Change Order Proposals or Unit Price Change Order Proposals, the Owner may elect to have any extra work performed on a cost plus markup percentage fee basis. Upon written notice to proceed, the Contractor shall perform such authorized extra work at actual cost for direct labor (working foremen, journeymen, apprentices, helpers, etc.), actual cost of labor burden, actual cost of material used to perform the extra work, and actual cost of rental of major equipment (without any charge for administration, clerical expense, general supervision or superintendent of any nature whatsoever, including general foremen, or the cost or rental of small tools, minor equipment, or plant) plus the approved Markup Percentage Fee. The intent of this clause is to define allowable cost plus chargeable costs to be the same as those allowable when pricing Lump Sum Change Proposals as outlined in subparagraphs 6.6.1 through 6.6.7 above. Owner and Contractor may agree in advance in writing on a maximum price for this work and Owner shall not be liable for any charge in excess of the maximum. Daily time sheets with names of all Contractor's employees working on the project will be required to be submitted to the Owner for both labor and equipment used by the Contractor for time periods

during which extra work is performed on a cost plus fee basis. Daily time sheets will break down the paid hours worked by the Contractor's employees showing both base contract work as well as extra work performed by each employee.

6.6.19 **Accurate Change Order Pricing Information:** Contractor, subcontractor or sub-subcontractor agrees that it is responsible for submitting accurate cost and pricing data to support its Lump Sum Change and/or Cost Plus Change Order Proposals or other contract price adjustments under the contract. Contractor further agrees to submit change order proposals with cost and pricing data which is accurate, complete, current, and in accordance with the terms of the contract with respect to pricing of change orders.

6.6.20 **Right to Verify Change Order Pricing Information:** Contractor, subcontractor and sub-subcontractor agrees that any designated Owner's representative will have the right to examine (copy or scan) the records of the Contractor, subcontractor or sub-sub contractor's records (during the contract period and up to three years after final payment is made on the contract) to verify the accuracy and appropriateness of the pricing data used to price all change order proposals and/or claims. Contractor agrees that if the owner determines the cost and pricing data submitted (whether approved or not) was inaccurate, incomplete, not current, or not in compliance with the terms of the contract regarding pricing of change orders, an appropriate contract price adjustment will be made. Such post-approval contract price adjustments will apply to all levels of contractors and/or subcontractors and to all types of change order proposals specifically including lump sum change orders, unit price change orders, and cost-plus change orders.

6.6.21 **Requirements for Detailed Change Order Pricing Information:** Contractor and subcontractor agree to provide and require all Subcontractors and sub-subcontractors to provide a breakdown of allowable labor and labor burden cost information as outlined in this Section 6.6. This information will be used to evaluate the potential cost of labor and labor burden related to change order work. It is intended that this information represent an accurate estimate of the Contractor's actual labor and labor burden cost components. This information is not intended to establish fixed billing or change order pricing labor rates. However, at the time change orders are priced, the submitted cost data for labor rates may be used to price change order work. The accuracy of any such agreed upon labor cost components used to price change orders will be subject to later audit. Approved change order amounts may be adjusted later to correct the impact of inaccurate labor cost components if the agreed upon labor cost components are determined to be inaccurate.

Article 7. Cost of the Work.

7.1 **Cost of the Work.** The "Cost of the Work" shall mean those costs listed in this Section. Cost of the Work shall not include any item included in the General Conditions Costs or the CM's Fee for Pre-Construction Services or the CM's Fee for Construction Services. Costs of the work include:

7.1 .1 **Subcontract Costs.** Payments made by the Construction Manager to any Subcontractor in accordance with the requirements of an approved Subcontract.

7.1.2 **Costs of Materials and Equipment Incorporated in the Completed Construction**

- (a) Costs, including transportation, of materials and equipment incorporated or to be incorporated in the completed construction, less all discounts and rebates.
- (b) Costs of materials described herein which are in excess of those actually installed, but which are required to provide reasonable allowance for waste and spoilage. Unused excess materials, if any, shall be delivered to OWNER at the completion of the Work or, at OWNER's option, shall be sold by the Construction Manager. Amounts realized, if any, from such sales shall be credited to OWNER as a deduction from the Cost of the Work.

7.1.3 Costs of Work CM Self Performs. The CM's direct costs for construction work it self-performs, provided that in no event shall such work include cost items included in the General Conditions Costs, the CM's Fee for Pre-Construction Services or the CM's Fee for Construction Services.

7.1.4 Emergencies and Repairs to Damaged or Nonconforming Work.

The following costs incurred by the Construction Manager shall become a part of the Cost of the Work:

- (a) in taking action to prevent threatened damage, injury or loss in case of an emergency affecting the safety of persons and property, as provided in the General Conditions.
- (b) in repairing damaged Work, provided that such damage did not result from the fault or negligence of the Construction Manager or the Construction Manager's personnel or any Subcontractor, and only to the extent that the cost of such repairs is not recoverable by the Construction Manager from others or the Construction Manager is not compensated therefor by insurance or otherwise.
- (c) in correcting defective or nonconforming Work, provided that such defective or nonconforming Work did not result from the fault or negligence of the Construction Manager or the Construction Manager's personnel or any Subcontractor or material supplier, and only to the extent that the cost of correcting the defective or nonconforming Work is not recoverable by the Construction Manager from third parties or the Construction Manager is not compensated by insurance or otherwise.

Any costs incurred by the CM which would otherwise be within the scope of this Subsection, but are excluded because such costs result from the fault or negligence of the CM, the CM's personnel, any Subcontractor or any other party for whom the CM is responsible, may only be charged against the Construction Contingency to the extent permitted by Paragraph 7.2.1 (e), and any such costs incurred after the Construction Contingency has been exhausted shall not be reimbursable as a Cost of the Work.

7.1.5 Miscellaneous Costs of the Work

The following costs shall be included in the Cost of the Work:

- (a) Subcontractor Bond premiums.
- (b) Royalties and license fees paid for the use of a particular design, process or product required by the Contract Documents in accordance with the General Conditions.
- (c) Other costs incurred in the performance of the Work if and to the extent approved in advance in writing by OWNER as Costs of the Work.

7.2 Construction Contingency.

7.2.1 The term "Construction Contingency" shall mean the line item included by the CM in the GMP and the Schedule of Values that is available to cover the net amount of any additional costs resulting from unforeseen conditions and events not reasonably anticipated at the time that the CM awards a Subcontract or the parties execute the GMP Amendment, as applicable, to the extent that such conditions or events do not result in or constitute a change in the Work. Examples of such unforeseen conditions and events include, but are not limited to, the following:

- (a) minor concealed or unknown conditions encountered in the performance of the Work which are determined not to be materially different from those indicated in the Contract Documents;
- (b) unanticipated cost overruns during the CM's procurement of Subcontracts or other purchases of materials or labor costs, provided that the same are not caused by the fault, negligence, or breach of contract of the CM or any Subcontractor;
- (c) expediting or acceleration costs required to meet the Baseline CPM Schedule, as long as the same are not made necessary by the fault or negligence of the CM or any Subcontractor; and
- (d) such other unforeseen events and conditions as may be specified in the Contract Documents as chargeable to the Construction Contingency.
- (e) additional costs associated with correction of defective or non-conforming Work, or repair of damaged work, provided that the CM shall have first used commercially reasonable efforts to recover the costs of such correction through any applicable Subcontracts (including pursuing the Subcontractors' sureties), and provided that such costs did not result from the fault, negligence or breach of contract of the CM, and only to the extent that the cost of such repair is not recoverable by the CM from others and the CM is not compensated therefor by insurance or otherwise.

After execution of the GMP Amendment, if the contract price of any subcontract as awarded is less than the amount carried for such subcontract in the GMP breakdown, the Construction Contingency shall be increased by the amount of such savings.

7.2.2 The CM shall maintain and update monthly a report describing each item that has been funded from the Construction Contingency and each item for which the CM has requested funding from the Construction Contingency that is pending with the Owner.

7.2.3 Costs authorized to be reimbursed from the Construction Contingency by Paragraph 7.2.1 shall be paid to the CM as Cost of the Work only if and to the extent reasonably approved by OWNER. The Construction Contingency shall be reduced by the additions to the Cost of the Work resulting from the use of the Construction Contingency as authorized by Paragraph 7.2.1. In the event the CM demonstrates that it has incurred or is about to incur additional costs for unforeseen conditions or

events that fall within the parameters of subparagraphs (a) through (e) of Paragraph 7.2.1, the CM shall be entitled to be paid for such costs from the Construction Contingency.

7.2.4 Contingency Interim Return/Balance. Prior to the execution of the GMP, the CM and the OWNER shall mutually agree to a milestone schedule to target contingency balances that shall be returned to the OWNER pending the financial status of the project and assessment of risk for both the CM and the Owner. The method of contingency reductions (percentage of total contingency or specified values) shall be defined prior to the execution of the GMP. At the completion of each milestone, the CM shall credit uncommitted contingency and buyout balances to the extent they are in excess of the milestone targets established prior to the GMP. If, at the time the OWNER issues the final payment to the CM pursuant to Article VIII of the General Conditions of the Contract, there is a balance in the Construction Contingency, such balance shall be the sole property of the Owner.

7.3 Non-Compensable Costs. Neither the Cost of the Work nor the General Conditions Costs shall include compensation for any of the items set forth below:

- (a) Salaries, bonuses and other compensation of the Construction Manager's personnel stationed at the Construction Manager's principal offices, or other offices, other than the site office for the Project, unless those personnel are specifically listed on Form C, or unless there is a mutual agreement between Owner and CM to include those personnel costs in either General Conditions costs or the Cost of Work.
- (b) Expenses of the Construction Manager's principal offices, site office or other offices, except the site office for this Project (including, without limitation, in-house computer costs, costs for project management software (such as Procore), costs for Building Information Modeling (BIM) software, mail, overnight, fax, reproduction, cellular telephone, local travel and other costs of doing business, services, and related expenses to maintain such offices).
- (c) Overhead and general expenses of any kind, including but not limited to office or fabrication shop overhead and drafting, other than the items covered by the General Conditions Amount.
- (d) The CM's capital expenses, including interest on the CM's capital employed for the Work.
- (e) Costs of machinery and equipment owned or rented by the CM, except as specifically provided in the Contract and approved by the Owner.
- (f) Costs incurred due to the fault, negligence or breach of contract of the CM, Subcontractors, anyone directly or indirectly employed by any of them, or for whose acts any of them may be liable, including, but not limited to, death or injury to person or damage to property, the correction of damaged, defective or nonconforming Work, disposal and replacement of materials and equipment incorrectly ordered or supplied, unanticipated cost overruns incurred by the CM in the procurement of Subcontracts, materials or labor, and making good damage to property not forming part of the Work, except: (i) to the extent reimbursement is received through the recovery of insurance proceeds, or (ii) to the extent such items may be charged to the Construction Contingency with the approval of the Owner pursuant to Paragraph 7.2.1(e).
- (g) Cost for purchase and maintenance of tools, materials, supplies and facilities not consumed during construction or incorporated into the Work, except as specifically provided in the Contract and approved by the Owner.
- (h) Penalties, fines or costs imposed by governmental authorities in connection with, or resulting from any violation of, or noncompliance with Applicable Laws, by the Construction Manager or any

Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable.

- (i) Any legal fees incurred by the Construction Manager, unless the same are incurred at the written direction, or with the prior written approval, of OWNER.
- (j) Travel or meal expenses and personnel relocation expenses except for personnel who have been assigned to the Project.
- (k) General Conditions Costs in excess of the total of compensation to be paid to CM for all General Conditions as set forth in Exhibit 1.
- (l) Any cost incurred by the CM as a result of a knowing violation of or failure to comply with this Agreement or the other Contract Documents by the CM.
- (m) Costs that would cause the GMP to be exceeded.
- (n) Costs incurred by the CM after final payment; provided, however, that to the extent there is a balance in the Construction Contingency remaining at final payment, such Contingency shall be available to pay costs incurred during the one year period after substantial completion, but only if such Contingency would have been available, subject to reasonable approval by Office, to pay such costs had such costs been incurred prior to final payment and only if CM has satisfied Owner that it has made commercially reasonable efforts to have subcontractors and suppliers pay for costs relating to defective or incomplete work items or warrantee items.

7.4 Discounts, Rebates, Refunds and Expenses. Cash discounts obtained on payments made by the CM shall accrue to OWNER if (a) before making the payments the CM included them in an Application for Payment and received payment therefor from OWNER, or (b) OWNER has deposited funds with the CM with which to make payments; otherwise, cash discounts shall accrue to the CM. The CM shall notify OWNER of the availability of any cash discounts so that OWNER may elect to pay or deposit such funds with the CM in order to obtain such cash discount. Such cash discounts and any other trade discounts, rebates, refunds and other amounts received from sales of surplus materials and equipment shall be credited to the Cost of the Work, and the CM shall make provisions so that they can be secured and credited accordingly. Any utility or government rebates associated with the Work are the property of the Owner.

7.5 Accounting Records

7.5.1 The Construction Manager shall check all materials, equipment and labor used on the Work, and shall keep full and detailed accounts and exercise controls as may be necessary for proper accounting and financial management under this Agreement. All books and records shall be maintained in accordance with generally accepted accounting principles, consistently applied. Without limitation, the CM shall comply with the requirements set forth in Article XI of the General Conditions. OWNER and its authorized representatives shall, upon request by OWNER, be afforded copies of, and at all times shall be afforded access to, all of the Construction Manager's records, books, correspondence, instructions, drawings, receipts, invoices, vouchers, memoranda, estimates, budgets, breakdowns, accounting data, bid proposals, cost control information and any other documents and data relating to this Agreement, including data in electronic media or any other media (collectively, "records") and the Construction Manager shall preserve all such records for a period of six years, or for such longer period as may be required by law, after Final Payment. With respect to work performed by the CM's own forces on a lump sum basis, the CM shall only be required to maintain certified payrolls,

documentation required by the Supplementary Conditions for Equal Employment Opportunity, Non-Discrimination and Affirmative Action, and such other records as are required by Applicable Laws or the terms of the Contract Documents.

7.5.2 Without limitation of the foregoing, OWNER shall have the right, at any time and from time to time, upon notice to the Construction Manager, to audit the Construction Manager's records in connection with the Work at the Construction Manager's offices. The Construction Manager shall facilitate any such audit by making necessary facilities available to OWNER and its accountants or other representatives for up to two years after substantial completion of the project.

7.5.3 Subcontractors shall have the same obligations to maintain books and records and to permit audits by the Construction Manager or OWNER as are applicable to the Construction Manager under the Contract Documents.

7.5.4 If any inspection of the Construction Manager's or any Subcontractor's books, records or other documents reveals an overcharge, the Construction Manager shall pay OWNER or, at OWNER's election, OWNER may reimburse itself by taking as a credit against future payments due the Construction Manager, an amount equal to the overcharge.

Article 8. Payments to Construction Manager.

8.1 Based upon Applications for Payment submitted by the CM, OWNER shall make payments to the CM on account of the Contract Price as provided in Article VIII of the General Conditions of the Contract, the provisions of the Owner-Construction Manager Agreement and elsewhere in the Contract Documents.

Article 9. Equal Employment Opportunity, Nondiscrimination and Affirmative Action

9.1 The CM and all of its Subcontractors shall comply at all times and in all respects with Applicable Laws affecting or regulating employment of persons in connection with the Work, and with the provisions in the General Conditions of the Contract relating to Equal Employment Opportunity, Nondiscrimination and Affirmative Action.

Article 10. Miscellaneous Provisions

10.1 Successors and Assigns. OWNER and the CM bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents. Neither the CM nor any partner of the CM shall assign or transfer the Contract or sublet or subcontract it (other than subcontracting portions of the Work as expressly permitted by and in accordance with the Contract Documents), or otherwise transfer or assign any of its or their rights or obligations under all or any portion of the Contract Documents without the prior written consent of OWNER, which consent may be withheld by OWNER in its sole discretion, nor shall the CM or any partner of the CM assign any moneys due or to become due to it hereunder, without such prior written consent of OWNER. Any assignment of the Contract or any interest therein by the CM or any partner of the CM without the prior written approval of the Owner, shall be void, and the assignee in such case shall

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acquire no rights in the Contract or in such moneys. OWNER may assign the Contract to any successor or assignee of OWNER's interests, provided that OWNER demonstrates to the reasonable satisfaction of the CM that such successor or assignee has the capability of fulfilling OWNER's obligations under the Contract.

10.2 Additional Information. Recognizing that OWNER may find it necessary during the progress of the Work to establish the current status of performance under the Contract Documents, the CM shall, without limitation of any other requirements of the Contract Documents, promptly provide upon request statements, documents or information to OWNER, the Project Manager and the Designer or others regarding the status of the Work, compliance of the Work with the Contract Documents, compliance by the CM or any Subcontractor with the Contract Documents, the names of Subcontractors or suppliers, amounts due or to become due or amounts previously paid to Subcontractors or suppliers, estimates of the portion of the Work completed and the cost of completing the Work, and such other matters within the scope of the CM's performance under the Contract Documents as OWNER may reasonably require.

10.3 Information Confidential. The CM shall treat as confidential any information relating to the Project that is specifically designated or identified by OWNER as confidential or proprietary, and shall not permit the release of such information to other parties without OWNER's prior written authorization.

10.4 Governing Law. The Contract shall be governed by the laws of the Commonwealth of Massachusetts.

10.5 No Personal Liability

10.5.1 No member, officer, consultant, volunteer, participant, employee, agent or representative of OWNER, Project Manager or Designer shall be personally liable to the CM under any term or provision of this Contract for OWNER's payment obligations or otherwise, or because of any breach hereof.

10.6 Conflict of Interest. The CM shall familiarize its employees assigned to perform services under this Agreement with the provisions of Chapter 268A of the Massachusetts General Laws (the Massachusetts conflict-of-interest statute). The CM acknowledges that OWNER is a "municipal agency" for purposes of the aforementioned statute and that the CM is an "interested party" for purposes of the statute. Accordingly, the CM, its employees and agents shall not offer or provide any employee of OWNER, the Project Manager, or the Designer any gift, gratuity, favor, meal, entertainment, loan or other item of monetary value. The CM warrants and represents that it currently has no interest and shall not acquire any interest, direct or indirect, which would be adverse to or conflict in any manner with the performance of its services under this Agreement or with the interest of OWNER or the Project. The CM further agrees that in the performance of this Agreement no person or entity having any such adverse or conflicting interest shall be employed or granted a subcontract. Except with OWNER's knowledge and express consent, the CM shall not engage in any activity, or accept any employment, interest or contribution that would reasonably appear to be adverse to the interests of OWNER or to compromise the CM's professional judgment with respect to the Project. The CM has a continuing obligation to divulge to OWNER all circumstances of its relationships with third parties, as well as any other interests that may have an effect on OWNER or the Project at the time of execution of this Agreement or during its performance. If OWNER believes that there is or has been a conflict of interest, or the appearance of a conflict of interest, it will so notify the CM. The CM shall make full disclosure of all material facts,

and shall have a period of thirty (30) days after receipt of such notice to cure the conflict of interest or the appearance of conflict of interest, including the right to request a meeting with the OWNER to explain its position. If the conflict of interest or appearance of conflict of interest is not cured to the satisfaction of OWNER or the controversy otherwise resolved prior to expiration of such thirty (30) days period, the CM shall be deemed to be in default of this Agreement and OWNER may exercise any remedies available to it under this Agreement or applicable law.

10.7 Termination of Contract. The Contract may be terminated as provided in Article XVII of the General Conditions.

10.8 Exhibits. The following Exhibits are attached to and incorporated in this Agreement:

- | | |
|-------------------|--|
| Exhibit 1. | CM <u>Contract Amount Breakdown (Proposal Form B & C)</u> Contract Amount Breakdown |
| Exhibit 2. | CM at Risk Non Price Proposal dated April 26, 2018 Insurance Certificates and Bonds (may be added after contract execution and prior to construction services). |
| Exhibit 3. | CM at Risk Request for Proposals dated April 12, 2018 (incl. Addenda 1-3) Prevailing Wage Rates (may be added after contract execution and prior to construction services). |
| <u>Exhibit 4.</u> | <u>Insurance Certificates and Bonds (may be added after contract execution and prior to construction services)</u> |
| <u>Exhibit 5.</u> | <u>Prevailing Wage Rates (may be added after contract execution and prior to construction services)</u> |

Article 11. Approved Subcontractors.

No Trade Contractors or Other Subcontractors shall be used to perform any portions of the Work other than the work described in their subcontracts, without the prior written approval of OWNER.

Article 12. Certifications.

Pursuant to M.G.L. c. 62(c), s.49 (a), the individual signing this Contract on behalf of the Construction Manager hereby certifies, under the penalties of perjury, that to the best of his or her knowledge and belief the Construction Manager has complied with any and all applicable state and federal tax laws. The individual signing this Contract on behalf of the Contractor further certifies under penalties of perjury that the Contractor is not presently suspended or debarred from doing public construction work in the Commonwealth under the provisions of M.G.L. c. 29, s. 29F, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder and is not presently suspended or debarred from doing public construction work by any agency of the United States.

Article 13. Minority Business Enterprise and Women Business Enterprise Participation Goals and Minority/Women Workforce Utilization Percentages

See Appendix A and Appendix B to the General Conditions of the Contract and Article XIII of the General Conditions of the Contract.

Article 14. Contract Execution

IN WITNESS WHEREOF, the parties have caused this instrument to be executed in triplicate as of the date set forth above.

**OWNER – MANCHESTER ESSEX
REGIONAL SCHOOL DISTRICT**

CONSTRUCTION MANAGER

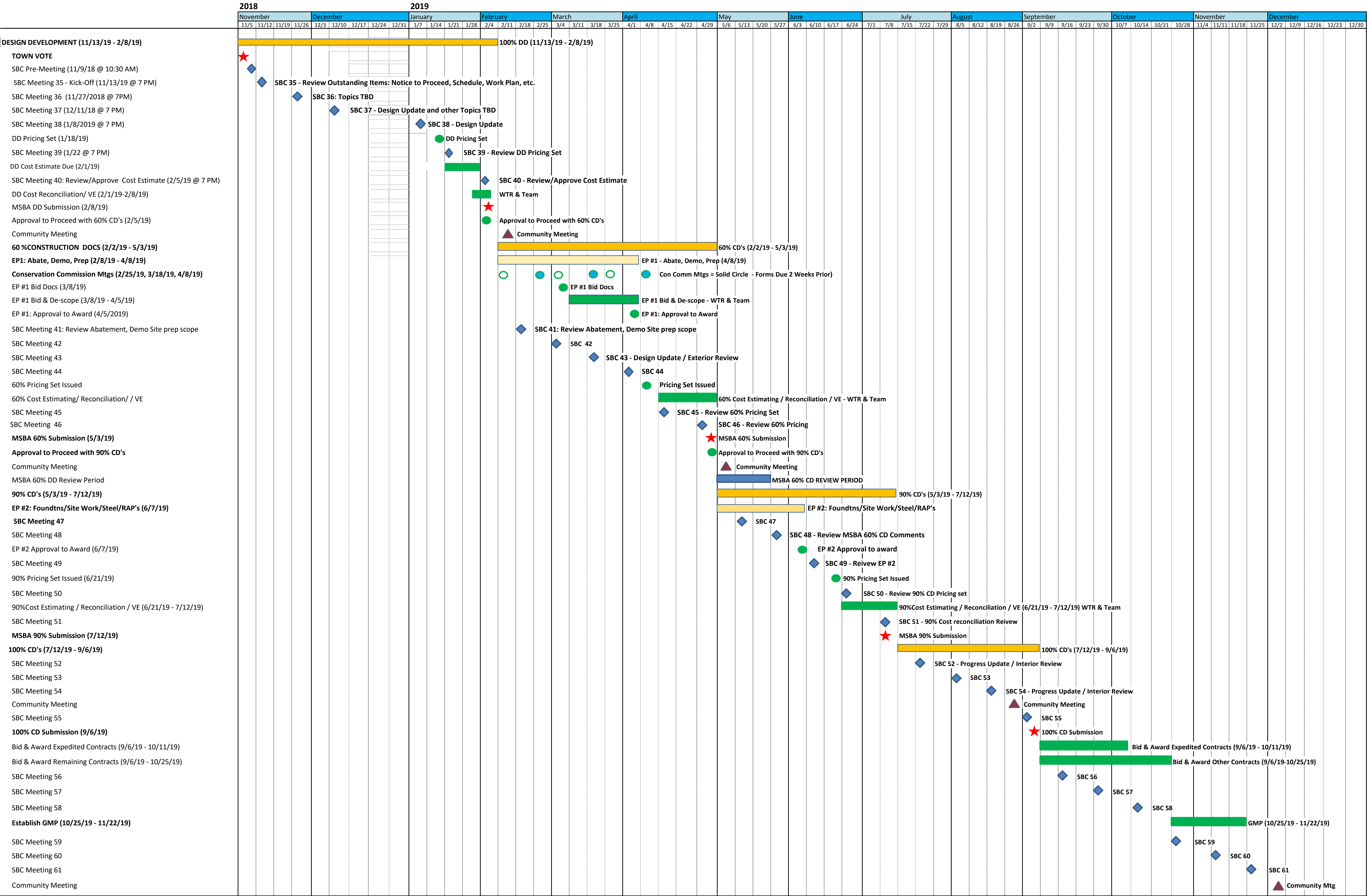
By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

I certify that the amount of \$_____ is available for compensation to the CM for the work described in this Contract.

Financial Officer -- Approved as to Form:

Attorney – Approved as to Form



DRAFT 11/12/2018

SBC MEETING #35 - DD: Administrative Kick-Off 11/13/18

Designer Documentation to Present/Review:

- ☐ Project Update (DWMP/JCJ)
- ☐ Review Work Plan, Schedule, Scope, Budget
- ☐ Design Review
 - Site Plan*
 - Floor Plans*
 - Interior Development*
 - Exterior Elevations*
- ☐ **Gym Massing** (Flat roof vs. gable roof at gym)
- ☐ Schedule Programming Interviews:
 - Classrooms, SPED, Music, Art, Library,*
 - Food Service, Admin areas*
- ☐ Reconvene/Add Subcommittees: MEP, Interiors, Education, Others?

Owner Information/Decisions

- ☐ **Confirm** Schedule, Budget, Scope, Work Plan
- ☐ **Confirm** Acceptance of MSBA Approved Design (Still allows for additional detailed development)
- ☐ **Confirm** process to form Subcommittees
- ☐ **Confirm** Gym Massing

SBC MEETING #36 - Design Development (DD) 11/27/18

Designer Documentation to Present/Review:

- ☐ Project Update
- ☐ **Review updated Exteriors and Interiors**
 - Site Plan: Bus Access, 2nd Access Drive*
 - Floor Plans*
 - Exterior Elevations: Materials, Glazing*
 - Interior Development*
- ☐ **MEP Systems Review**
- ☐ Review Sustainability / LEED Scorecard

Owner Information/Decisions

- ☐ **Confirm** Schedule for Interviews
- ☐ Provide **comments** for continued development of Exteriors and Interiors
- ☐ **Approve/Comment on** MEP Systems Review
- ☐ Provide **comments** to Sust/LEED Scorecard

SBC MEETING #37 - Design Development (DD) 12/11/18

Designer Documentation to Present/Review:

- ☐ Project Update
 - Teacher & Staff Interviews*
- ☐ Design Update
 - Site Plan Review**
 - Floor Plans*
 - Exterior Elevations: Material & Glazing*
 - Interior Spaces: The Hub, Main Street*

Owner Information/Decisions

- ☐ Provide **comments** to Interview Findings to Date
- ☐ Provide **comments** to MEP systems update
- ☐ Provide **comments** to updated Interior/Exterior
- ☐ **Approve/Comment on** Site Plan

Christmas / New Years Break

12/24/2018 - 1/2/2019

MEETING #38 - Design Development (DD) 1/8/19

Designer Documentation to Present/Review:

- ☐ Project Update
- ☐ Design Update
 - Site Plan*
 - Floor Plans / Reflected Ceiling Plans*
 - Exterior Elevations / Materials & Glazing*
 - Interior Finishes*
 - Comm/Security Systems & Tech Infrastructure*
- ☐ **MEP Systems Update**
- ☐ **Review Kitchen / Servery**

Owner Information/Decisions

- ☐ **Confirm Design approval for DD submission**
 - Site Plan**
 - Floor Plans / Reflected Ceiling Plans*
 - Exterior Elevations / Materials & Glazing*
 - Interior Finishes*
 - Building systems*
 - Comm/Security Systems & Tech Infrastructure*
- ☐ **Approve** approach to Kitchen/Servery

DRAFT 11/12/2018

MEETING #39 - Design Development (DD) **1/22/18**Designer Documentation to Present/Review:

- ☐ Project Update
- ☐ **Review Pricing Set**
 - Site Plan*
 - Floor Plans / Reflected Ceiling Plans*
 - Exterior Elevations / Materials & Glazing*
 - Interior Finishes*
 - Building Systems*

Owner Information/Decisions

- ☐ **Approve project scope for Pricing set**
 - Site Plan*
 - Floor Plans / Reflected Ceiling Plans*
 - Exterior Elevations / Materials & Glazing*
 - Interior Finishes*
 - Building Systems*

MEETING #40 - Design Development (DD) **2/5/19**Designer Documentation to Present/Review:

- ☐ Review DD Cost Estimate
- ☐ MSBA DD Submission Review

Owner Information/Decisions

- ☐ Approval to proceed to with CD's

Approval to Proceed to Construction Documents **2/5/19****MSBA DD Submission** **2/8/19****Prepare for Community Meeting** **TBD: Feb 2019**

Manchester Memorial Elementary School

Schematic Design Phase - SBC Meeting

#33

November 13, 2018

1. Call to Order
2. Previous Topics & Approval of September 26, 2018 Meeting Minutes
3. Invoices & Commitments for Review/Approval
4. Schedule Update
5. Design Update
6. Budget Update
7. Other Topics Not Reasonably Anticipated 48 hours prior to Meeting
8. Public Comments
9. Adjourn

1. Call to Order



2. Previous Topics & Approval of September 26, 2018 Minutes



3. Invoices & Commitments for Review/Approval

Minuteman Press Invoice No. 89535 in the amount of \$7,093.58

Minuteman Press Invoice No. 89538 in the amount of \$315.00

WT Rich Preconstruction Services Invoice No. 2 in the amount of \$5,000

MSBA Project Scope and Budget

JCJPM Staffing Change

DWMP DD-Closeout Contract

JCJDD-Closeout Contract

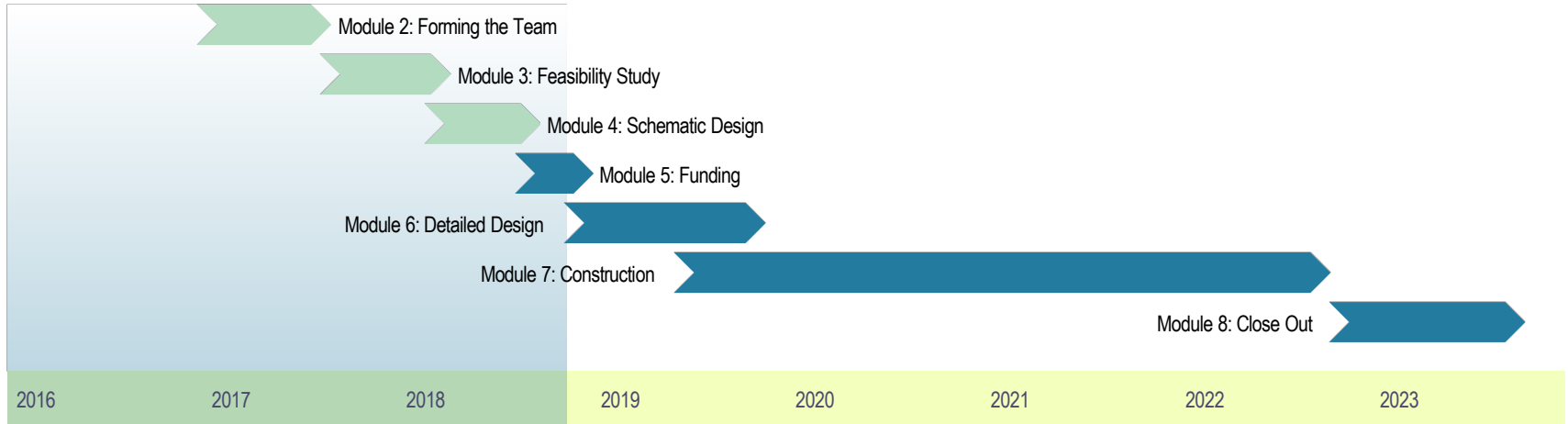
WT Rich CM/Owner Agreement

4. Schedule Update

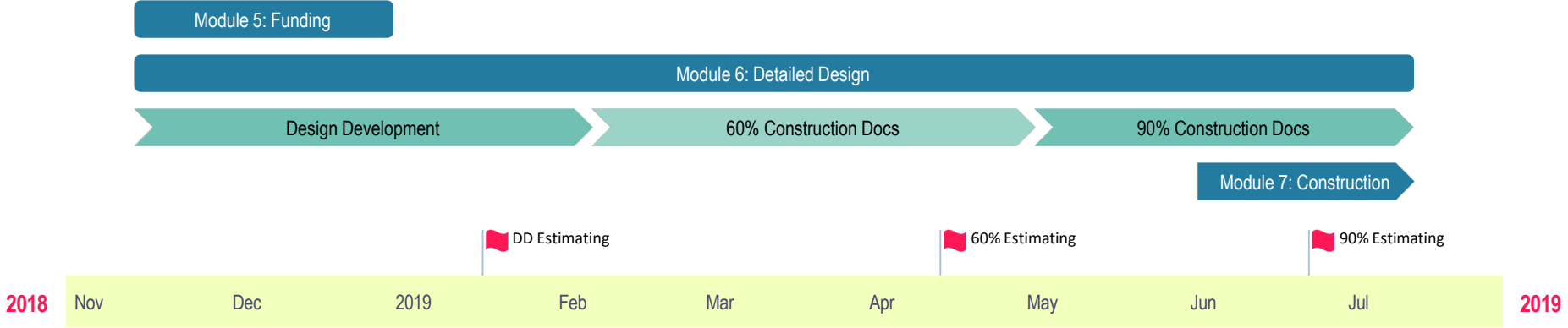
JCJ Workplan Review/Introduction and Lessons Learned Discussion

DWMP Overall Schedule Review

Overall Project Timeline



Next Steps



5. Design Update



6. Budget Update



7. Other Topics Not Reasonably Anticipated (48 hours prior to meeting)

8. Public Comments



9. Next Meetings



10. Adjourn



THANK YOU





MANCHESTER MEMORIAL ELEMENTARY SCHOOL

SCHEMATIC DESIGN PHASE
SBC MEETING #35
NOVEMBER 13TH, 2018

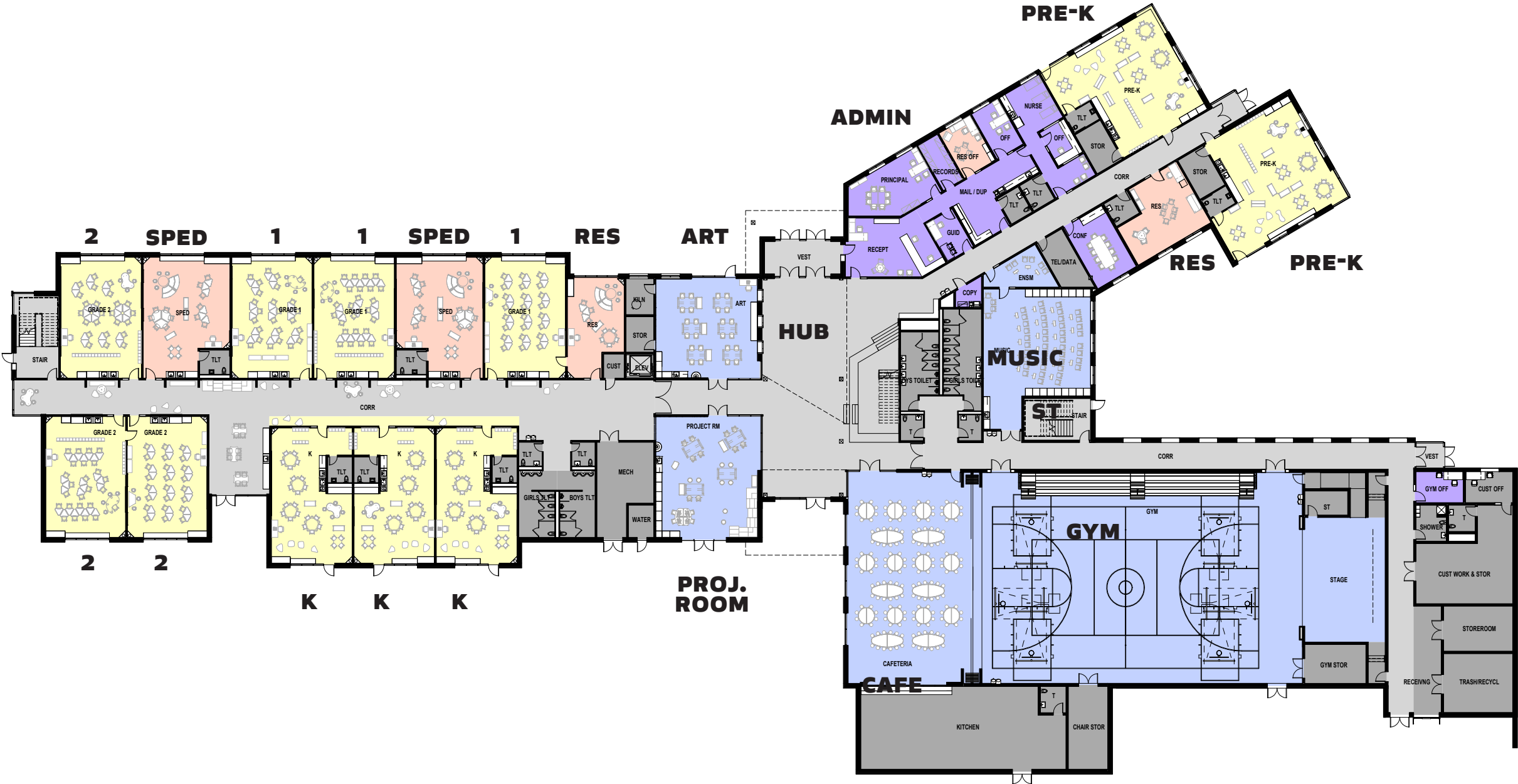


MANCHESTER MEMORIAL ELEMENTARY SCHOOL
MANCHESTER-ESSEX REGIONAL SCHOOL DISTRICT, MASSACHUSETTS

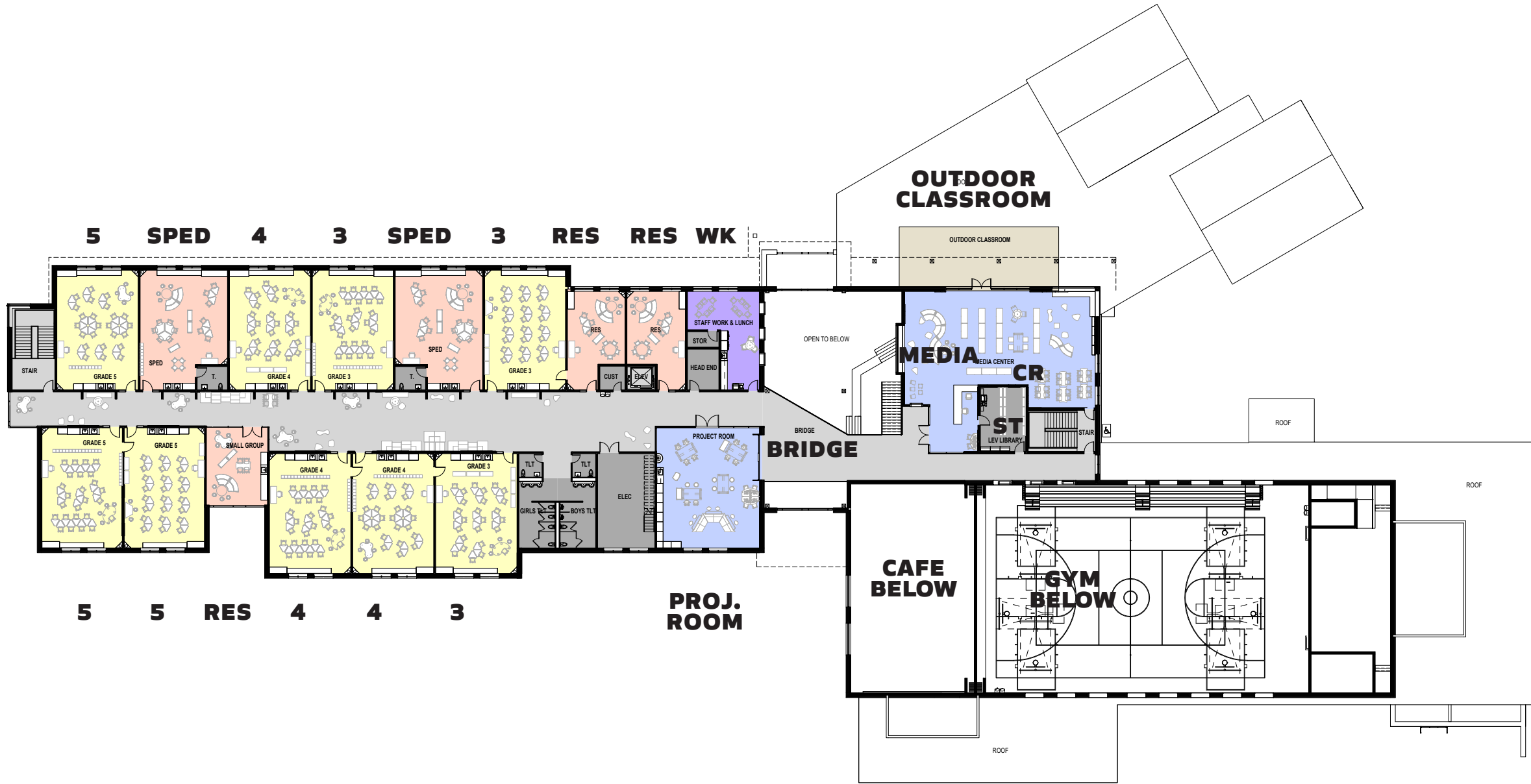


JCJ ARCHITECTURE

MAIN LEVEL PLAN - APPROVED SD



UPPER LEVEL PLAN - APPROVED SD



BUILDING MASSING - APPROVED SD



BUILDING MASSING - APPROACH



BUILDING MASSING - MAIN ENTRY



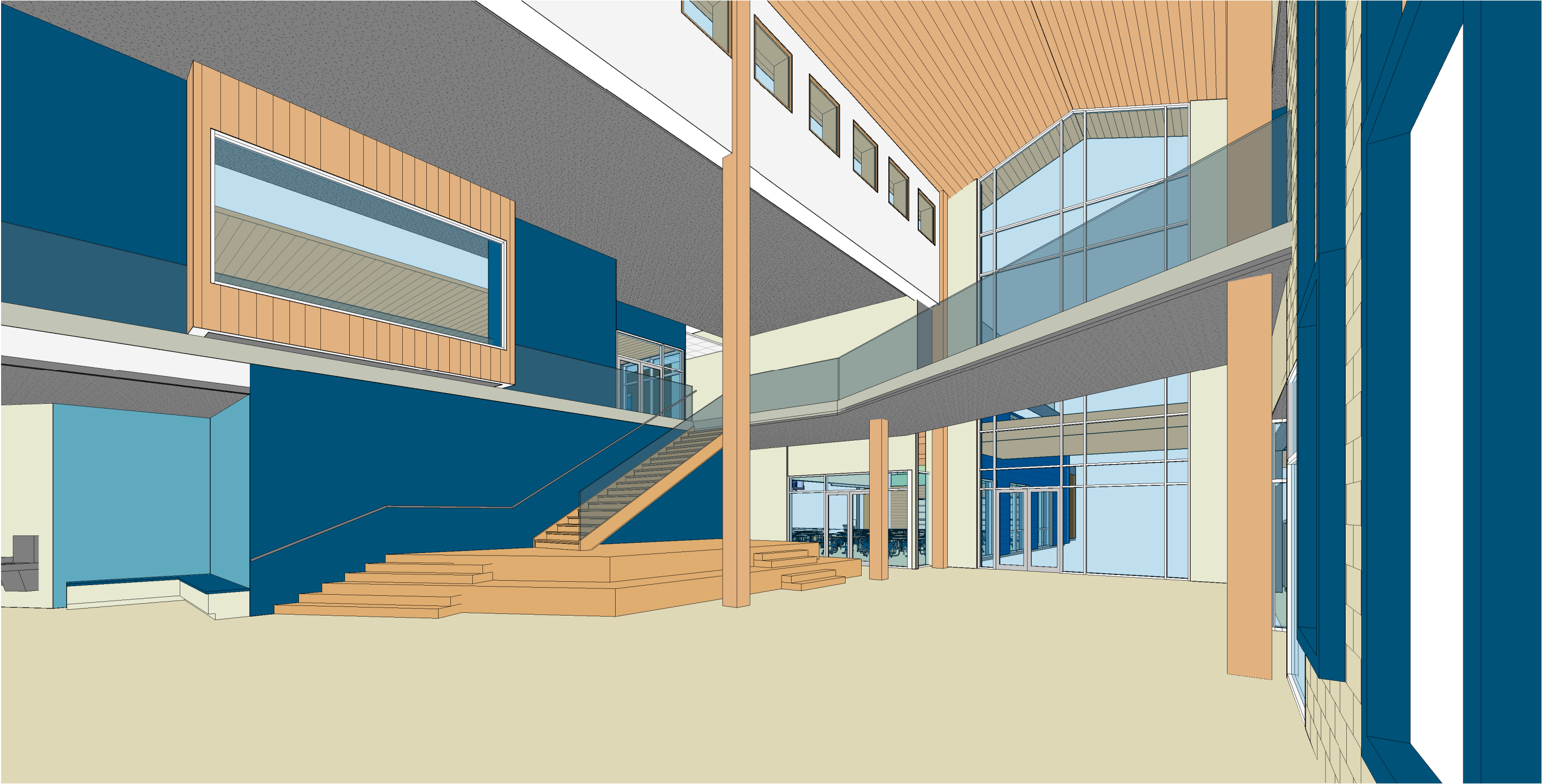
BUILDING MASSING - VIEW FROM SUMMER STREET



BUILDING MASSING - GYM ENTRY



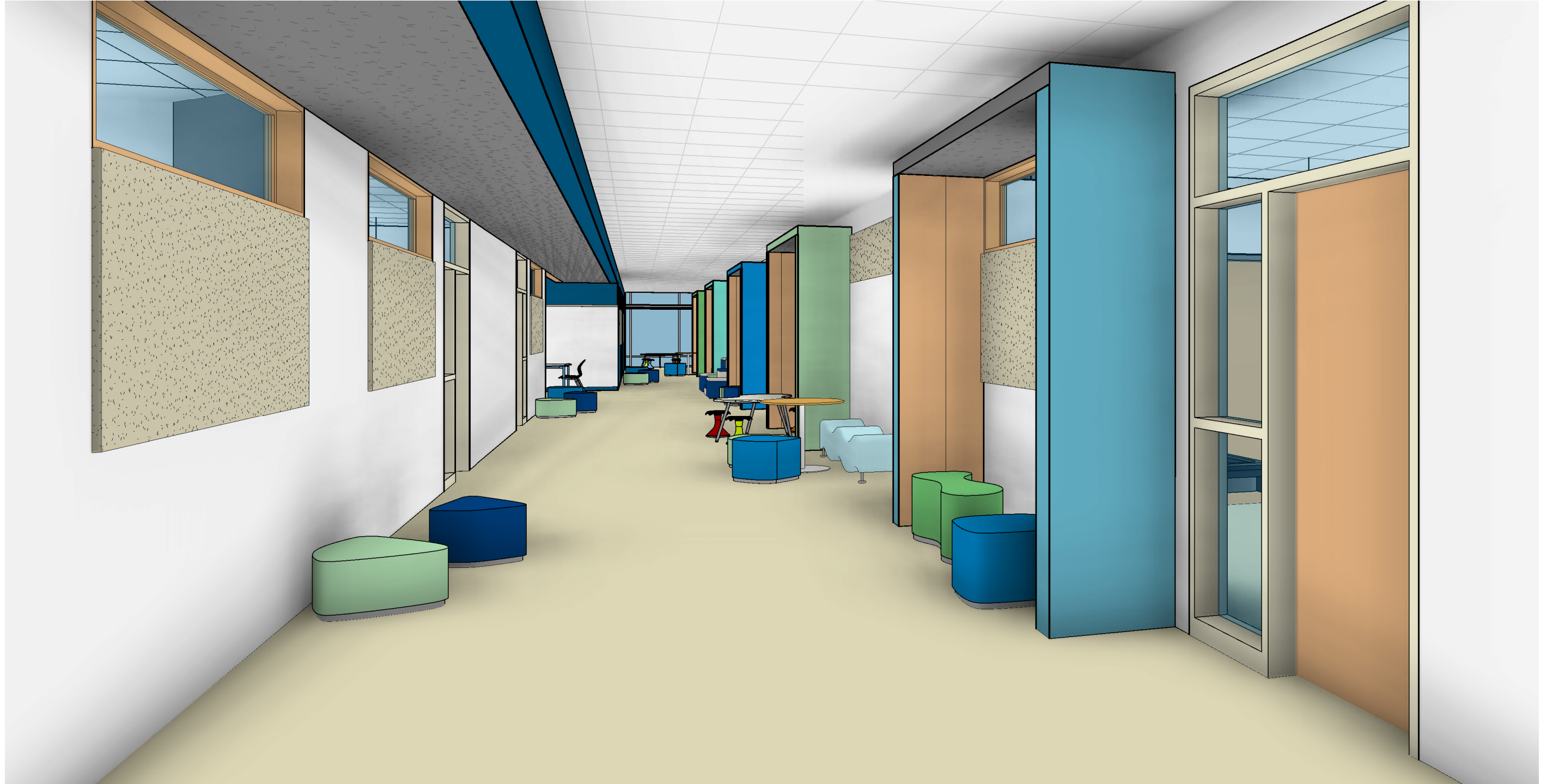
INTERIOR DESIGN - HUB



INTERIOR DESIGN - HUB



INTERIOR DESIGN - MAIN LEVEL CLASSROOM COMMUNITY



INTERIOR DESIGN - UPPER LEVEL CLASSROOM COMMUNITY





THANK YOU



BUILDING MASSING - GABLED GYM



BUILDING MASSING - GABLED GYM



BUILDING MASSING - GABLED GYM

