



Concord Middle School Project

Project Manager Report

September 2021





CONCORD MIDDLE SCHOOL PROJECT

PROJECT MANAGER'S REPORT SEPTEMBER 2021

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Executive Summary

Town of Concord

Concord Middle School Project



Executive Summary

This Project Manager's Report for the Concord Middle School Project is submitted by **Hill International** (Hill) and covers activities through the month of **September 2021**.

Project Progress

The COVID-19 pandemic is ongoing. All project related meetings are continuing to be held via Zoom Video Conferencing.

The Design Team continued progression of the Schematic Design. Hill and SMMA attended School Building Committee (SBC) meetings on September 2nd and September 16th; Communications Subcommittee (CSC) meetings on September 2nd and September 21st; a Sustainability Subcommittee (SSC) meeting on September 20th; Design Subcommittee (DSC) meetings on September 10th and 14th; and a Community forum on September 23rd. Hill and SMMA also met weekly to coordinate work tasks and deliverables to the SBC and subcommittees.

Milestones

The following milestones were achieved during the month of September 2021:

- At the September 2nd SBC Meeting, SMMA presented design options for brick pattern, window pattern, and auditorium arrangement. The committee came to a consensus and chose option 1 for a two-window classroom approach; option 3 for a grain brick pattern; and option 2 for a low sloped floor auditorium. Additionally, SMMA reduced the cafeteria storage space from 400 to 300 nsf and reduced EV charging stations by 10% in the design.
- At the September 16th SBC Meeting, Hill International proposed schematic design estimating would occur from October-November. Tentative dates for the Special Town Meeting and Special Town Election were voted on by the SBC to be proposed and voted on by the Select Board. SMMA presented different percentages for materials being used for various interior finishes to provide cost estimators with a basis of design from which adjustments can be made. SMMA presented the Life Cycle Cost Analysis as well as three options relating to building energy systems. The proposed energy system would have variable refrigerant flow, air sourced heat pumps, dedicated outdoor air systems for the classrooms, and dedicated air handling units for larger spaces. Hill International proposed pushing escalation from 8% to 9% by Q2 2023 resulting from a change in the project schedule pushing back the assumed construction start date two months. This adjustment moved the opening date of the new school to April 14th, 2025.
- At the September 20th SSC Meeting the subcommittee voted to pursue displacement ventilation for the auditorium and the gymnasium. The consideration of the Ground Source Heat Pump (GSHP) energy system option was discontinued after deliberation.

Milestones projected for the coming months are:

- Finalize project budget
- Complete Schematic Design package deliverables for estimating
- Agree on dates to authorize Design Development Phase
- Evaluate value management recommendations

Town of Concord

Concord Middle School Project



Issues

- Estimated project cost sits slightly above Request for Services total project cost range.
- Hill and SMMA presented a request for an amendment to SMMA contract to perform additional geotechnical explorations.

Schedule

Major milestones are as follows:

- | | |
|---|--|
| ▪ OPM Selection | Completed Aug. 28 th , 2019 |
| ▪ Designer Selection | Completed Nov. 18 th , 2019 |
| ▪ Feasibility Study (*amended report remains pending) | Completed April 29 th , 2021 |
| ▪ Schematic Design | Tentative Completion date of No. 30 th , 2021 |
| ▪ Special Town Meeting | January 20 th , 2022 |
| ▪ Town Vote | February 3 rd , 2022 |
| ▪ Design Development | See attached schedule |
| ▪ 60% Contract Documents | See attached schedule |
| ▪ 90% Contract Documents | See attached schedule |
| ▪ 100% Contract Documents | See attached schedule |
| ▪ Bidding | See attached schedule |
| ▪ Construction | See attached schedule |
| ▪ Substantial Completion (New Building) | See attached schedule |
| ▪ Demolition of Existing Building and Add New Fields | See attached schedule |
| ▪ Closeout | |

NOTE: The Project Team is waiting on confirmation from the Town of Concord for the next Special Town Meeting date.

Budget

On April 8, 2019 Concord Town Meeting passed, by overwhelming majority, an appropriation not to exceed \$1,500,000 to study the feasibility of constructing a new Middle School, which may be located on the Sanborn School Site.

Hill International contract for Feasibility/Schematic Design is \$299,800 and SMMA contract for Feasibility/Schematic Design is \$889,400.

Hill requested an additional \$5,500 to contract the cost estimator, PM&C, to provide cost estimate for Feasibility Study to compare and reconcile with SMMA's cost estimate. Hill got approval from the Leadership Team at the end of March 2020 and has completed the work. Amendment #1 was approved on September 1, 2020 for adding Feasibility cost estimate by PM&C for comparison and reconciliation with SMMA's cost estimate.

Based on the Feasibility Study completed by Finegold Alexander, the estimated Total Project Cost may range from \$80M to \$100M depending upon the solution that is agreed upon by the Owner. This Total Project Cost translates to a potential Total Construction Cost of \$60M to \$80M.

Town of Concord

Concord Middle School Project



On December 5, 2019 Hill met with the Finance Subcommittee and presented the cost analysis for the Concord Middle School using the similar Middle School Project costs from the MSBA. The projected total project cost for the new Concord Middle School with 5% escalation is between \$80M - \$109M and the projected cost with 7% escalation is between \$83M - \$122M. The project budget is not yet finalized until the Design Team meets with the users and community to determine the programming, building size and enrollments.

In March 2021, Hill provided a preliminary cost analysis of the current program which forecasts the total project cost at \$99.9M.

In April 2021, the SBC brought forth additional scope requests with community support including a larger gym, larger auditorium, and additional parking. Hill and SMMA presented scope options ranging in cost from \$3.2M to \$9.75M above the current \$100M total project budget. The committee voted at the April 15 SBC meeting to increase the total project budget to not-to-exceed \$108M to further study these additional scope options.

In June 2021, the Project Team continued to monitor cost projections given the fluctuation of the building gross square footage from design iterations. Steps were taken to minimize the cost impact due to the increased gym and auditorium size. Total project cost projections currently range from \$100.8M to \$102.4M.

In July 2021, the total project cost fluctuated from \$101.5M to \$100.3M with continued changes to the building gross square footage. Market conditions and schedule can continue to impact cost and will be monitored and reported accordingly.

In September the estimated total project cost was adjusted from \$100.3M to 101.2M with the assumed construction start date being pushed back from March 2023 to May 2023. This change in schedule resulted in an estimated 1% escalation increase to 8% to 9% resulting in the total budget increase.

Cash Flow

Total project budget is \$100,000,000.

Total encumbered to date is \$1,194,700.

Total spent on construction to date is \$0.00.

Total spent to date is \$971,676. 81% of total encumbered.

Project Team Summary

Awarding Authority	Town of Concord (ToC)
Client	Town of Concord / Concord Public Schools
Owner's Project Manager	Hill International, Inc. (Hill)
Commissioning Agent	TBD
Designer	SMMA
CM / GC	TBD



Project Dashboard



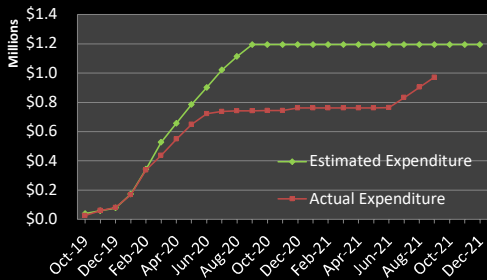
Town of Concord
Concord Middle School

Project Dashboard

September 30, 2021

EXECUTIVE SUMMARY



Project Accomplishments this Month					Current Issues & Areas of Focus			Current Progress Photos			
<p>At the September 2nd SBC meetings chose from among multiple options relating to classroom windows, brick design, and auditorium layout for the schematic design.</p> <p>At the September 16th SBC Meeting the committee voted to present dates to the select board for the Special Town Meeting and the Special Town Vote. The design team proposed a completed schematic design by October so cost estimating based on the schematic design could be completed. The scheduled construction start date was pushed back two (2) months increasing escalation by 1% resulting in an estimated overall project budget increase of \$1,207,507.41.</p> <p>At the September 20th Sustainability Committee Meeting members voted to pursue displacement ventilation in the gym and auditorium in the schematic design.</p>					COVID-19 Pandemic Final Feasibility Report Schematic Design for Estimating						
Projected Major Tasks next Month											
Complete Project Budget Complete Amended Feasibility Study Report Complete Schematic Design for Estimating Agree on dates to authorize Design Development Phases											
Schedule Summary - Upcoming Milestones					Diversity Compliance			Project Cash Flow - Plan vs Actual			
	Scheduled Start	Scheduled Finish	Actual Start	Actual Finish	Metric	Target	Actual				
Designer Procurement	9/25/2019	11/18/2019	9/25/2019	12/9/2019	Designer's WBE/MBE	17.9%	TBD				
Feasibility/Schematic Design	11/19/19	7/1/2020	11/19/19		Contractor's WBE/MBE	10.4%	TBD				
Town Meeting (Proposed)	1/20/22	1/20/22									
Town Vote (Proposed)	2/3/22	2/3/22									
Design Development / Contract Documents	2/7/22	2/22/23									
Bidding	10/24/22	4/23/23									
Construction	5/9/23	12/10/24									
Punch List & Move-in	12/11/24	4/11/25									
Demolition Existing Building	4/15/25	9/12/25									
Closeout	9/12/25	1/15/26									
PROJECT FINANCIAL OVERVIEW										Scope changes from the Original Scope	
Description	BUDGET				COST				CASH FLOW		N/A
	Baseline	Budget	Authorized Changes	Approved Budget	Committed Costs	Uncommitted Costs	Forecast Costs	Total Project Costs	Expenditures to Date	Balance To Spend	
Site Acquisition	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Construction	\$ 80,000,000	\$ -	\$ 80,000,000	\$ -	\$ 80,000,000	\$ -	\$ 80,000,000	\$ -	\$ 80,000,000	\$ 80,000,000	
Design Services	\$ 8,331,000	\$ -	\$ 8,331,000	\$ 889,400	\$ 7,441,600	\$ -	\$ 8,331,000	\$ 684,396	\$ 7,646,604		
Administrative	\$ 4,229,595	\$ 5,500	\$ 4,235,095	\$ 305,300	\$ 3,929,795	\$ -	\$ 4,235,095	\$ 287,280	\$ 3,947,815		
FF&E	\$ 2,677,500	\$ -	\$ 2,677,500	\$ -	\$ 2,677,500	\$ -	\$ 2,677,500	\$ -	\$ 2,677,500		
SUBTOTAL	\$ 95,238,095	\$ 5,500	\$ 95,243,595	\$ 1,194,700	\$ 94,048,895	\$ -	\$ 95,243,595	\$ 971,676	\$ 94,271,919		
Construction Contingency (Hard Cost)	\$ 4,000,000	\$ -	\$ 4,000,000	\$ -	\$ 4,000,000	\$ -	\$ 4,000,000	\$ -	\$ 4,000,000		
Owner's FFE Contingency	\$ -	\$ -	\$ -	\$ -	NA	NA	NA	\$ -	NA		
Owner's Contingency (Soft Cost)	\$ 761,905	\$ (5,500)	\$ 756,405	\$ -	\$ 756,405	\$ -	\$ 756,405	\$ -	\$ 756,405		
SUBTOTAL	\$ 4,761,905	\$ (5,500)	\$ 4,756,405	\$ -	\$ 4,756,405	\$ -	\$ 4,756,405	\$ -	\$ 4,756,405		
PROJECT TOTAL	\$ 100,000,000	\$ -	\$ 100,000,000	\$ 1,194,700	\$ 98,805,300	\$ -	\$ 100,000,000	\$ 971,676	\$ 99,028,324	Project Budget Transfers	
										N/A	

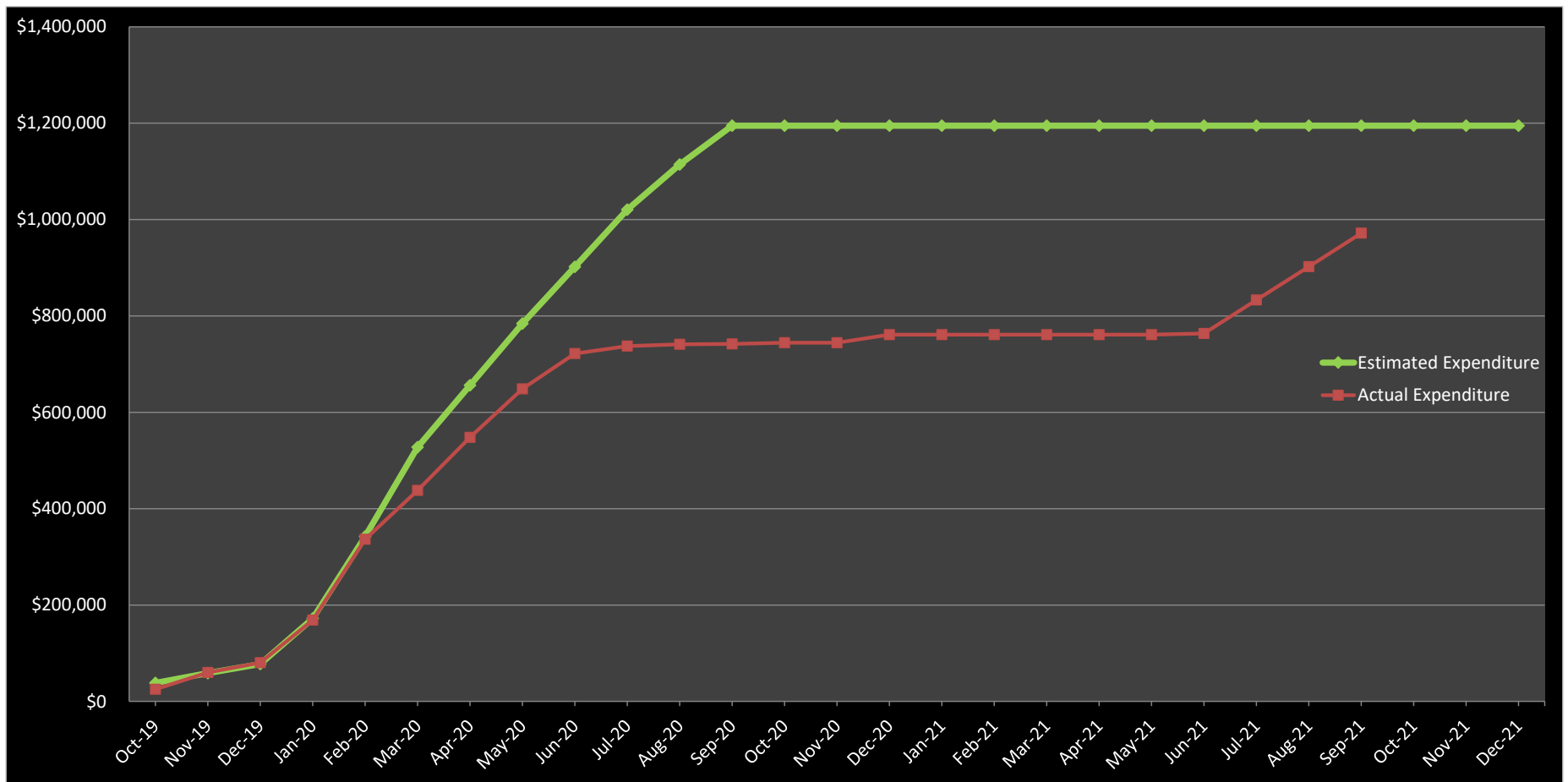


Project Cash Flow

Concord Middle School
Estimated Project Cash Flow Thru SD Phase



	Month		OPM	Designer & Consultants	Commissioning Agent, FF&E & Misc.	Construction	Contingency	Estimated Expenditures	Actual Expenditures	Estimated Cumulative Expenditures	Actual Cumulative Expenditures
Feasibility Study	1	Oct-19	\$38,290					\$38,290	\$25,110	\$38,290	\$25,110
	2	Nov-19	\$20,550					\$20,550	\$34,595	\$58,840	\$59,705
	3	Dec-19	\$18,790					\$18,790	\$20,660	\$77,630	\$80,365
	4	Jan-20	\$18,790	\$75,645				\$94,435	\$88,210	\$172,065	\$168,575
	5	Feb-20	\$18,790	\$151,290				\$170,080	\$167,735	\$342,145	\$336,310
	6	Mar-20	\$24,070	\$161,376				\$185,446	\$101,535	\$527,591	\$437,845
	7	Apr-20	\$22,670	\$105,903				\$128,573	\$110,125	\$656,164	\$547,970
	8	May-20	\$21,590	\$106,361				\$127,951	\$100,465	\$784,115	\$648,435
Pause	9	Jun-20	\$21,590	\$96,275				\$117,865	\$73,474	\$901,980	\$721,909
	10	Jul-20	\$22,290	\$96,275				\$118,565	\$15,520	\$1,020,545	\$737,429
	11	Aug-20	\$24,430	\$69,318				\$93,748	\$3,785	\$1,114,293	\$741,214
	12	Sep-20	\$53,450	\$26,957				\$80,407	\$720	\$1,194,700	\$741,934
	13	Oct-20						\$0	\$2,590	\$1,194,700	\$744,524
	14	Nov-20						\$0	\$0	\$1,194,700	\$744,524
Restart Feasibility Study	15	Dec-20						\$0	\$16,798	\$1,194,700	\$761,322
	16	Jan-21						\$0	\$0	\$1,194,700	\$761,322
	17	Feb-21						\$0	\$0	\$1,194,700	\$761,322
	18	Mar-21						\$0	\$0	\$1,194,700	\$761,322
	19	Apr-21						\$0	\$0	\$1,194,700	\$761,322
	20	May-21						\$0	\$0	\$1,194,700	\$761,322
Schematic Design	21	Jun-21						\$0	\$2,400	\$1,194,700	\$763,722
	22	Jul-21						\$0	\$69,318	\$1,194,700	\$833,040
	23	Aug-21						\$0	\$69,318	\$1,194,700	\$902,358
	24	Sep-21						\$0	\$69,318	\$1,194,700	\$971,676
	25	Oct-21						\$0	\$0	\$1,194,700	
	26	Nov-21						\$0	\$0	\$1,194,700	
	27	Dec-21						\$0	\$0	\$1,194,700	
	Subtotal for FS/ SD		\$305,300	\$889,400	\$0			\$1,194,700			





Schedule Update



Cost Analysis



Concord Middle School Project

Side-by-Side Cost Analysis

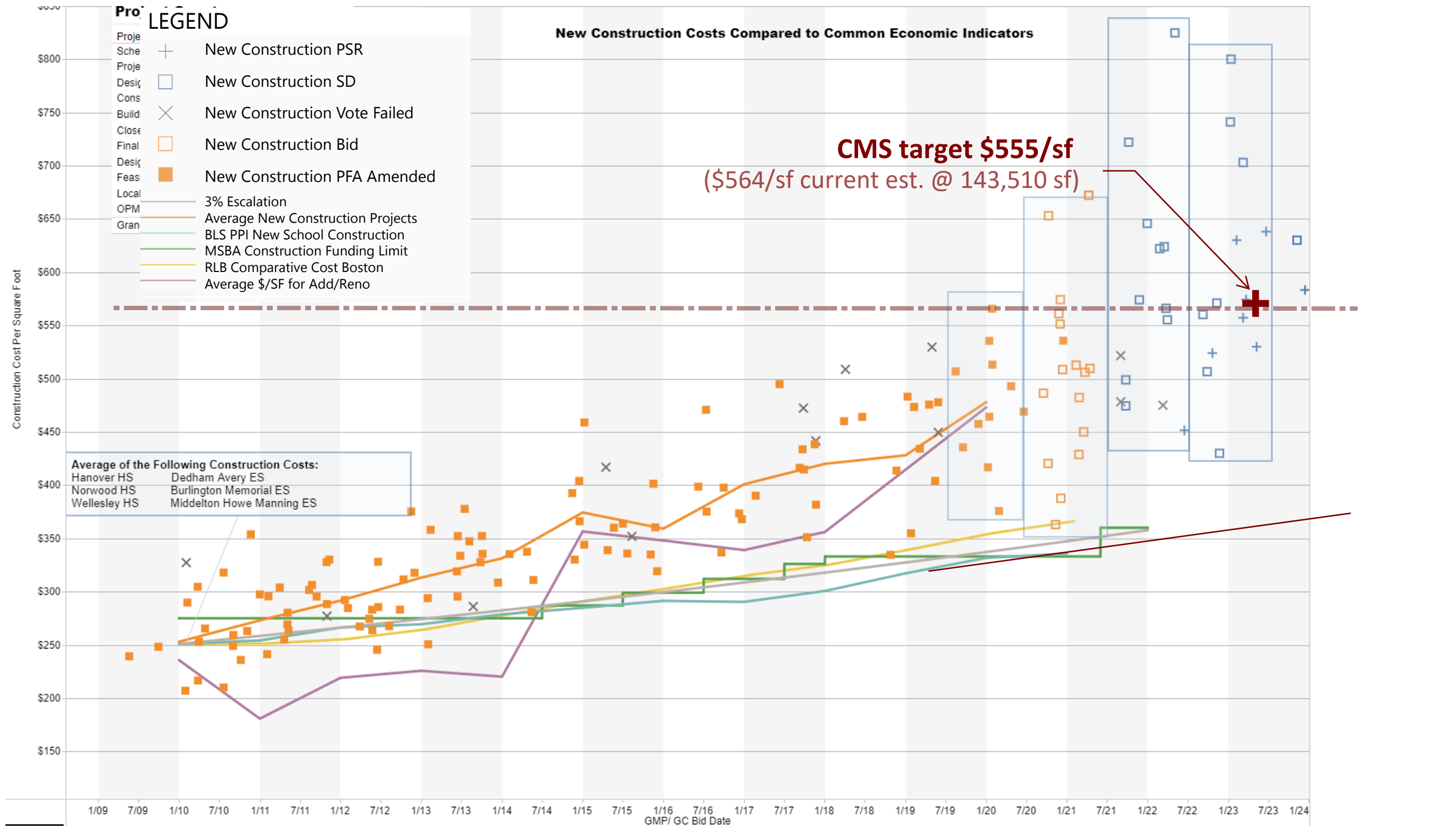
24-Jun-21

20-Jul-21

16-Sep-21

District	Concord	Concord	Concord	Concord
School Name	Concord MS	Concord MS	Concord MS	Concord MS
Construction Type	New	New	New	New
Enrollment	700	700	700	700
GSF	142,995	145,647	143,660	143,510
Assumed Start of Construction	March 2023	March 2023	March 2023	May 2023
OPM	Hill International	Hill International	Hill International	Hill International
Designer	SMMA	SMMA	SMMA	SMMA
Cost Estimator	Based on AM Fogerty	Based on AM Fogerty	Based on AM Fogerty	Based on AM Fogerty
Gross SF	142,995	145,647	143,660	143,510
Cost / SF	\$ 348.00	\$ 348.00	\$ 348.00	\$ 348.00
Construction	\$ 49,762,260.00	\$ 50,685,156.00	\$ 49,993,680.00	\$ 49,941,480.00
Demolition / Hazmat	\$ 1,500,000.00	\$ 1,500,000.00	\$ 1,500,000.00	\$ 1,500,000.00
Site Cost	\$ 7,500,000.00	\$ 7,500,000.00	\$ 7,500,000.00	\$ 7,500,000.00
TOTAL DIRECT	\$ 58,762,260.00	\$ 59,685,156.00	\$ 58,993,680.00	\$ 58,941,480.00
Total Mark-ups	\$ 21,217,016	\$ 21,550,242	\$ 21,300,574	\$ 22,024,534
Design Contingency 12.00%	\$ 7,051,471.20	\$ 7,162,218.72	\$ 7,079,241.60	\$ 7,072,977.60
Escalation 8% or 9%	\$ 5,265,098.50	\$ 5,347,789.98	\$ 5,285,833.73	\$ 5,941,301.18
GC 5.00%	\$ 3,553,941.48	\$ 3,609,758.23	\$ 3,567,937.77	\$ 3,597,787.94
GR 2.50%	\$ 1,865,819.28	\$ 1,895,123.07	\$ 1,873,167.33	\$ 1,888,838.67
Permits (waived) 0.00%				
P&P Bond 2.00%	\$ 1,529,971.81	\$ 1,554,000.92	\$ 1,535,997.21	\$ 1,548,847.71
Profit 2.50%	\$ 1,950,714.06	\$ 1,981,351.17	\$ 1,958,396.44	\$ 1,974,780.83
TOTAL CONSTRUCTION	\$ 79,979,276.33	\$ 81,235,398.10	\$ 80,294,254.07	\$ 80,966,013.93
CONSTRUCTION COST PER STUDENT	\$114,256.11	\$116,050.57	\$114,706.08	\$115,665.73
CONSTRUCTION COST PER SF	\$559.32	\$557.76	\$558.92	\$564.18
PROJECT COST	\$99,974,095.41	\$101,544,247.62	\$100,367,817.59	\$101,207,517.41
	Education Plan	Gym & Auditorium Upsize	GSF Refinement	Cost Escalation Update

Schedule Change
Escalation increase from 8% to 9%





Schematic Design Progress

Memorandum

To: Court Booth, Chair CMS Design Subcommittee
 From: Kristen Olsen, SMMA
 Project: Concord Middle School Project
 Re: Design Subcommittee Decisions
 Distribution: (MF)

Date: 8/27/2021
 Project No.: 19153.00

Design "Givens"

- Floor plan will continue to develop and be refined and optimized to meet the program requirements and CMSBC cost efficiency goals.
- Building is organized two major areas: large space wing (west) and academic wing (east), separated by and straddling the natural topography
- Security will be developed with Concord Public Schools, Police Dept and Fire Dept.

Schematic Decision phase recommendations sought by the DSC to the CMSBC:

Building Envelope

1. Brick Pattern	Option 1: Mist Dissipating / Gradient	Option 2: Solid	Option 3: Grain	Option 4: Texture
2. Window Shape/Size	Option 1	Option 3	-	-

Design Approach

3. Auditorium	Option 1: Hybrid Fixed and Collapsible, Dividable	Option 2: Traditional Sloped	Option 3: Traditional Sloped and Stepped
---------------	---	------------------------------	--

Interior Design

4. Ceilings	Will consider exposed to structure and infra-structure	Will not consider exposed to structure and infrastructure
5. Floor	Will consider polished concrete	Will not consider polished concrete

Notes:

- Window Option 1: Slightly more glare than Option 2; better views to the outdoors.
 Window Option 2: Slightly less glare than Option 1; less access to views to the outdoors
 Design team recommends Option 1 based on our understanding of the DSC and CMSBC goals for daylighting, views and glare.
- Hybrid model was put forward as a result of information gathered from the Music Dept during the Schematic Design educational programming interviews.

1000 Massachusetts Avenue
 Cambridge, MA 02138
 617.547.5400

www.smma.com



Building Layout and Design

Educational Use, Community Use, Integration with Landscape

“Public” Wing

- School use only during school hours
- Community use after hours



■	Classroom
■	Team Commons
■	Special Education
■	Vocation/Tech Classroom
■	Administration
■	Guidance
■	Nurse
■	Media Center
■	Auditorium
■	Music
■	Art
■	Physical Education
■	Cafeteria

“Academic” Wing

- 3 stories
- Houses majority of classrooms

Gym:

- 1 MIAA Court
- 2 large practice courts
- All-school assembly
- Proximate to parking
- Separate entrance potential

Media Center:

- Equal size to existing middle school libraries combined
- Located in the heart of the school
- View into the forest



Auditorium:

- 420 seats
- Traditional sloped seating

Cafeteria:

- Scramble servery
- Mix of seating types
- One grade level / lunch
- View into the forest

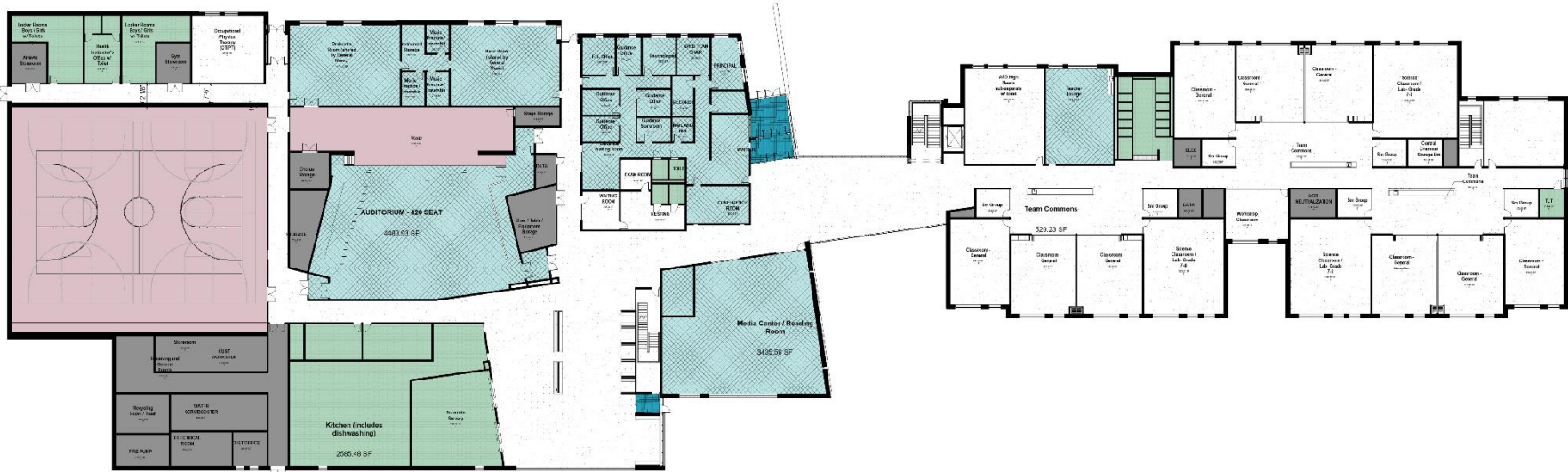
Academic Wing:

- 1 grade level per floor
- 3 Teams per grade level
- Integrated SPED spaces
- Spaces for differentiation



Diagram of Floor Materials

- Linoleum
- Porcelain Tile or Epoxy Resinous
- Wood
- Sealed Concrete
- Carpet Tile
- Walk Off Carpet



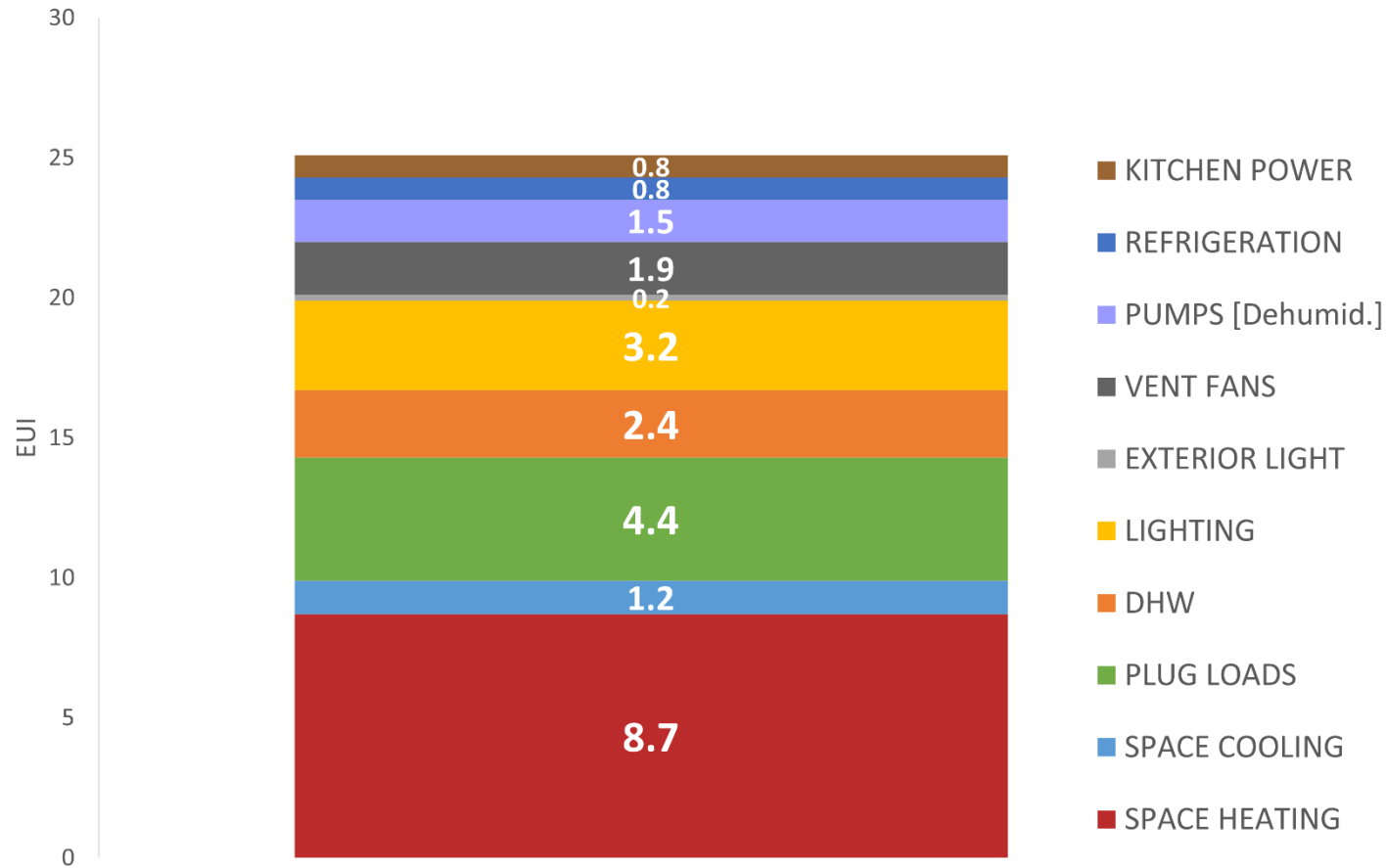


Sustainability and Building Systems Design

EUI Goal, Netzero Readiness, All-Electric Systems

CMS EUI Update

ENERGY CONSUMPTION BY END-USE



25
EUI

Life Cycle Cost Analysis Update

Building Energy Systems

Initial Project Cost & Payback Analysis							
System Options		Installation Costs	Incremental costs		Predicted Annual Savings	Predicted EUI	Predicted GHG Emissions Reduction
		(\$)	(\$)	(%)	(\$)	kBtu/SF/yr.	(%)
Scenario 1 (Proposed Design)	VRF/ASHP HEATING & COOLING + DOAS	\$11,306,709				25.1	42.4%
Scenario 2	VRF/ASHP HEATING & COOLING + DOAS + DISPL. VENT (Audit.)	\$11,729,709	\$423,000	3.7%	(\$1,669)	25.4	41.8%
Scenario 3	GEOHERMAL HEATING & COOLING + GEOHERMAL DOAS	\$14,871,709	\$3,565,000	31.5%	\$2,053	24.8	43.1%

NOTE: Geothermal will not be possible without impact to schedule, due to site constraints

Life Cycle Cost Analysis Update

Building Energy Systems relative to MA Stretch Code

Initial Project Cost & Payback Analysis								
System Options		Installation Costs	Incremental costs		Predicted Annual Savings	Payback	Predicted EUI	Predicted GHG Emissions Reduction
		(\$)	(\$)	(%)	(\$)	(Yrs.)	kBtu/SF/yr.	(%)
Base Case (Stretch Code)	ALL ELECTRIC PACKAGED DX DOAS + DX HEAT PUMP HEATING/COOLING	\$10,128,910					43.6	
Scenario 1 (Proposed Design)	VRF/ASHP HEATING & COOLING + DOAS	\$11,306,709	\$1,177,799	1.2%	\$122,464	9.6	25.1	42.4%
Scenario 2	VRF/ASHP HEATING & COOLING + DOAS + DISPL. VENT (Audit.)	\$11,729,709	\$1,600,799	1.6%	\$120,794	13.3	25.4	41.8%
Scenario 3	GEOHERMAL HEATING & COOLING + GEOHERMAL DOAS	\$14,871,709	\$4,742,799	4.7%	\$124,516	38.1	24.8	43.1%

NOTE: Geothermal will not be possible without impact to schedule, due to site constraints

16 SEPTEMBER 2021

CONCORD MIDDLE SCHOOL

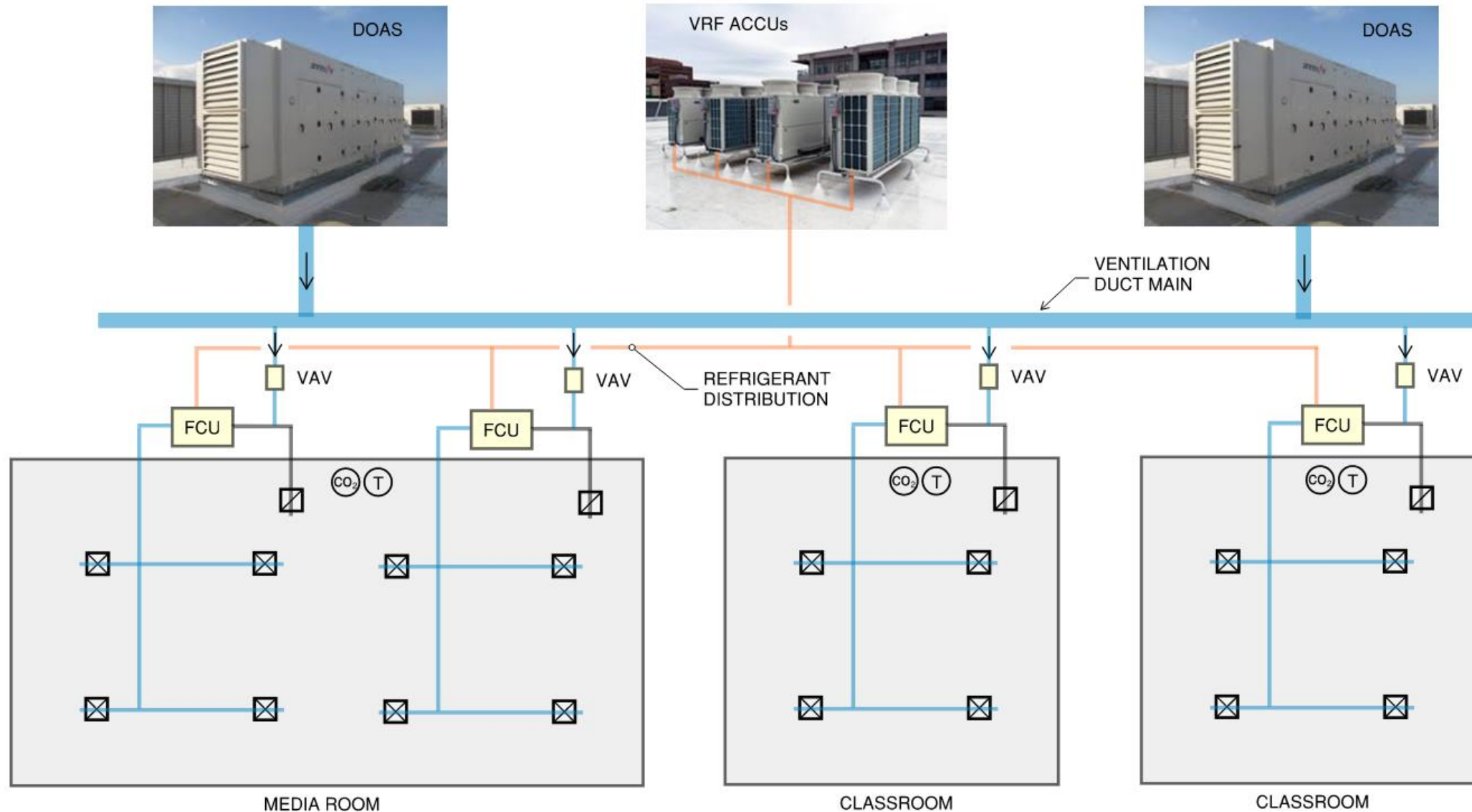
Life Cycle Cost Analysis Update

Building Energy Systems – 50 yr. Life Cycle Analysis

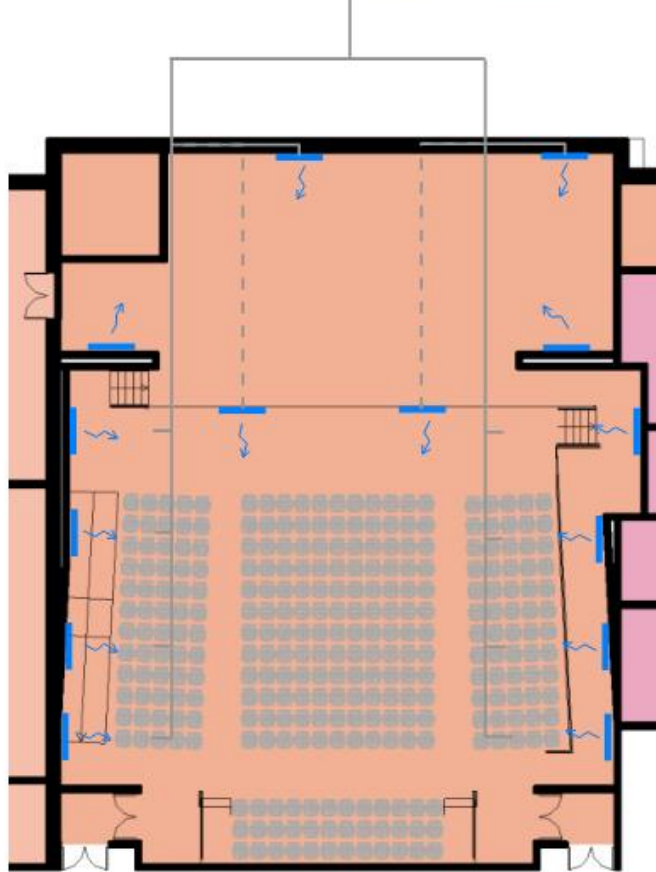
Life Cycle Cost Analysis (50 yrs) - HVAC Systems & Building Enclosure								
		System Costs as Present Value					Predicted EUI	Predicted GHG emissions Reduction (%)
		Installation	Replacement	Maintenance	Energy	50-Year Life	kBtu/SF/yr	
Scenario 1 (Proposed Design)	VRF/ASHP HEATING & COOLING + DOAS	\$11,306,709	\$5,530,200	\$581,493	\$4,278,024	\$21,696,000	25.1	42.4%
Scenario 2	VRF/ASHP HEATING & COOLING + DOAS + DISPL. VENT (Audit.)	\$11,729,709	\$5,745,440	\$594,358	\$4,320,978	\$22,390,000	25.4	41.8%
Scenario 3	GEOTHERMAL HEATING & COOLING + GEOTHERMAL DOAS	\$14,871,709	\$4,773,719	\$800,196	\$4,225,206	\$24,671,000	24.8	43.1%

NOTE: Geothermal will not be possible without impact to schedule, due to site constraints

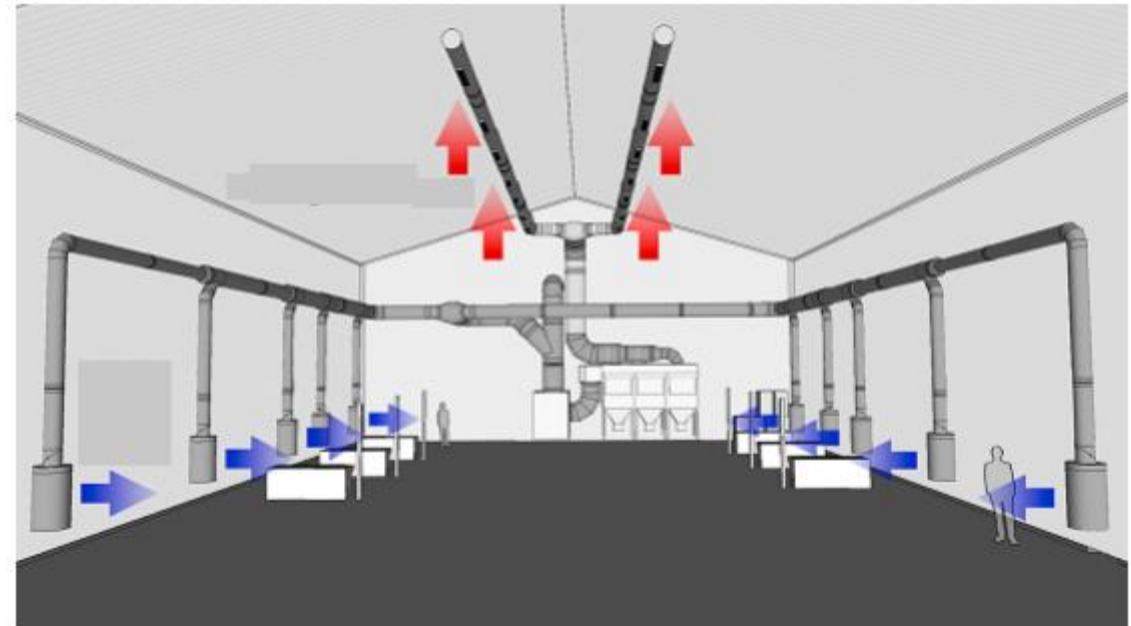
Recommended Opt. 2. VRF + DOAS + DV *for Auditorium*



Recommended Opt. 2. VRF + DOAS + DV *for Auditorium*



Displacement Diffuser Types



Displacement Ventilation Example



Meeting Minutes

Concord Middle School Building Committee
Meeting Minutes
September 02, 2021
Revised: September 16, 2021

PRESENT: Dawn Guarriello, Laurie Hunter, Pat Nelson, Matt Root, Charles Parker, Frank Cannon, Jared Stanton, Chris Popov, Jon Harris, Matt Johnson, Russ Hughes, Justin Cameron, Heather Bout, Court Booth, Peter Fischelis, Stephen Crane, Alexa Anderson

PRESENT FROM HILL INTERNATIONAL: Ian Parks, Duclinh Hoang, Peter Martini

PRESENT FROM SMMA/EWING COLE: Kristen Olsen, Lorraine Finnegan, Philip Poinelli, William Smarzewski, Keith Fallon

MEETING ORGANIZER: Dawn Guarriello

Call to Order

Dawn Guarriello called the meeting to order at 7:30 A.M. via Zoom Virtual Conference call. A recording of the meeting will be made available at the Concord Public School's project page and Town of Concord's website.

Approval of Minutes

Matt Johnson made a motion to approve the August 5, 2021 meeting minutes as written. Seconded Court Booth. No further discussion. Motion carried unanimously with Stephen Crane and Alexa Anderson abstaining.

Correspondence

Heather Bout reported to the committee that there was one correspondence regarding the alternative physical education (Alt PE) space.

Business

Co-chair Dawn Guarriello discussed with the committee the membership of the Communications Subcommittee noting Heather Bout will still chair the Communications Subcommittee and Alexa Anderson will be joining the committee.

Heather Bout, Chair of the Communications Subcommittee, reported to the committee a recommendation of an updated draft communications plan in preparation for a Special Town Meeting and Special Elections for the upcoming months. See attached.

Jared Stanton, Chair of the Finance Subcommittee, reported to the committee that the Finance Subcommittee met on August 20, 2021 and discussed the charge of the finance committee. Mr. Stanton noted the charge was providing a focal point discussion in review of project financial issues, management and analysis of building cost in relation to other similar projects. In addition Hill went over the dashboard that will mirror how the MSBA does their financials using the same account codes and categories. The subcommittee discussed change orders, potentially setting limit on change amount approval. Mr. Stanton

noted the limit was \$5,000 so any change orders under \$5,000 could be approved under subcommittee and change orders over the limit will need to be presented to the Building Committee.

Schematic Design (SD)

Court Booth, Chair of the Design Subcommittee, reported to the committee that the subcommittee met on August 31, 2021. Mr. Booth discussed window options and made a recommendation to move forward with Option 1 as the preferred as it was more simple and had no glare concerns. The subcommittee looked at four (4) material façade options (mist, solid, grain, texture) and the subcommittee made a recommendation to move forward with Option 3, grain, as the preferred. The subcommittee was not in favor of the color but liked the design intent. Option 4, texture, is also being reviewed by the design team. Mr. Booth noted the design team presented three (3) options for the auditorium (hybrid, low sloped floor, sloped & stepped seating). The subcommittee made a recommendation with option 2, low sloped floor in a more traditional auditorium configuration of seating.

Discussion ensued:

- Charlie Parker added, the auditorium had rotated compared to the design. Kristen Olsen added the plans to date showed Option 3 but will update the plans with the recommendations from the subcommittee.
- Stephen Crane asked in the subcommittee committee if the auditorium can host a town meeting. Mr. Booth noted it was not discussed.
- Kristen Olsen added that Justin Cameron and Laurie Hunter did review the options again with the teachers.
- Matt Johnson noted the option with the hybrid solution with the partition wall that if flipped then there could be opportunity to use that partition space as alternate PE as it would be facing the gym and could accommodate other uses. Mr. Johnson expressed the textured wall could be the climbing wall.

Co-chair Dawn Guarriello asked for the general consensus of the committee on the window pattern (Option 1), brick pattern/building façade (Option 3, grain pattern) and low sloped floor auditorium (Option 2) recommendations. The details and color options will be decided at a later date. The general consensus of the committee was to move forward with the options as presented.

Matt Root, Chair of the Sustainability Subcommittee, reported to the committee the recommendations made by the subcommittee. The first one was natural ventilation, introducing outside air into the building, which relies on openings inside and outside of the buildings and fans to facilitate air flow, but there were concerns with acoustics and natural ventilation being a different system compared to other buildings in Town.

The recommendations from the subcommittee is for the design team to present options for a partial displacement ventilation system, reduce the number of electric vehicle (EV) charging stations from the requirements listed in the EZ-Code to 2% installed spaces connected to the building (meet LEED goal), allow mechanical systems to be placed on the roof and target EV charging infrastructure for 10% of parking as EV ready.

Co-chair Dawn Guarriello asked for the general consensus of the committee on recommendations by the Sustainability subcommittee. The general consensus of the committee was to move forward with the recommendations as presented.

For cost management due diligence, Kristen Olsen, SMMA, reported the design team reviewed the cafeteria storage and reduced the space from 400 nsf to 300 nsf. EV charging stations, planned during the Feasibility Study to meet EZ-code requirements, are now being reduced to 10%. Also, no secondary, additional natural ventilation system is being planned. Ms. Olsen noted the currently known cost risks are market conditions, unforeseen site conditions and septic system design requirements. Peter Martini, Hill, reported on market conditions noting the market is still volatile. Hill reported that currently the cost index for 2021, as tracked by ENR, Turner and others is at a 7-11% in average through August. Hill noted the current increased cost of steel and that there are long lead times for mechanical equipment.

Schedule Update

Kristen Olsen, SMMA, reported upcoming meeting dates noting the next School Building Committee as follows:

- Thursday, September 16 (exterior/interior design refinements and mechanical systems update)
- Thursday, October 7 (Schematic Design (SD) pricing submission content, proposed value management (VM) list, and furniture and technology scope and budget)
- Friday, November 5 (Review reconciled estimates/project cost, discuss and vote on VM recommendation)
- Friday, November 12 (Vote to approve SD scope and budget)

Matt Johnson added there is a meeting for the Select Board, September 20, 2021, to follow up on goals for the upcoming fiscal year and would like to invite the Concord Middle School Building Committee to participate and brainstorm possible revenue to offset costs to the project.

Cash flow Update

Ian Parks, with Hill, presented to the committee on the cash flow noting the only update is SMMA's progress payment in the amount of \$69,318 for the month of August. The expenditures to date is \$902,358.00.

Next Steps

Next meeting will be Thursday, September 16, 2021

New Business

No New business.

Public Comment

Karlen Reed, Woods End, noted the Clerks Office needs about two (2) month's notice for Special Town Meeting.

Executive Session

Stephen Crane motions to move into executive session for the purpose of contract negotiations not to return to open session. Seconded by Heather Bout. The motiuon carried unanimous decision.

Details of this meeting can be found on the YouTube link below:

https://www.youtube.com/watch?v=mYN8V_LynjU

APPROVED

Concord Middle School Building Committee
Meeting Minutes
September 16, 2021

PRESENT: Dawn Guarriello, Laurie Hunter, Pat Nelson, Matt Root, Charles Parker, Frank Cannon, Jared Stanton, Chris Popov, Jon Harris, Matt Johnson, Russ Hughes, Justin Cameron, Heather Bout, Court Booth, Peter Fischelis, Stephen Crane, Alexa Anderson

PRESENT FROM HILL INTERNATIONAL: Ian Parks, Peter Martini

PRESENT FROM SMMA/EWING COLE: Kristen Olsen, Martine Dion, Andy Oldeman

MEETING ORGANIZER: Dawn Guarriello

Call to Order

Dawn Guarriello called the meeting to order at 7:30 A.M. via Zoom Virtual Conference call. A recording of the meeting will be made available at the Concord Public School's project page and Town of Concord's website.

Approval of Minutes

Matt Johnson made a motion to approve the September 2, 2021 meeting minutes as amended with the revision to add his comments that the removable partition in the auditorium might accommodate the Alternate PE and other uses. Seconded by Stephen Crane. No further discussion. Motion carried unanimously.

Correspondence

Heather Bout reported to the committee that there was three email correspondences, two from the public about the design and one about the gym size discussion. Ms. Bout noted Monday evening the Select Board is having a meeting to discuss funding options for the Concord Middle School project and to help promote the meeting with the public.

Business

Co-chair Dawn Guarriello discussed with the committee the Town Meeting and Ballot timing, noting previously a potential December date, but there was concern with it happening around the holidays. Stephen Crane added that he did meet with the Clerk to discuss possible dates for Town meetings and elections with the holidays, school, and mask advisories in mind when determining dates. The Town Moderator, Carmin Reiss, mentioned that Concord has a typical calendar that involves having a pre-town meeting hearing and a public hearing on the warrant article. It is up to the Select Board to figure out when to schedule and open/close the warrant and when to schedule the pre-meeting hearing. Ms. Reiss added the proposed schedule does work for her.

Ian Parks, Hill International Inc., reported to the committee the current proposed timeline for the Special Town Election. Mr. Parks noted the project is currently in Schematic Design (SD) Phase and estimating for SD will happen in October/November 2021. The Town process for Special Town Election will happen from November 17, 2021 to February 2, 2022 with the Special Town Meeting to occur on January 20, 2022

and Special Town Election to take place on February 2, 2022 as tentative dates. Ms. Guarriello added the schedule incorporates time for the committee to share information and get word out to the community to allow for questions about the process and project.

Ms. Guarriello noted that her understanding is that the Select Board would need to make an official vote on the Special Town Meeting date. Mr. Johnson added the vote can take place anytime, not necessarily at the next Select Board meeting. The committee supported making a recommendation to the Select Board to have the Special Town Meeting on January 20, 2022 and the Special Town Vote on February 2, 2022 to allow for feedback and planning for the next steps.

Schematic Design (SD)

Court Booth, Chair of the Design Subcommittee, reported to the committee that the subcommittee met on September 10, 2021 and September 14, 2021. On September 10, 2021 the subcommittee discussed consolidation of the bridge and entryway concept and possible impacts to cost, energy and traffic flow. Mr. Booth reported that SMMA defended the need to maintain the connection bridge between the public and academic wings for circulation purposes. The subcommittee also looked at an alternative location for the World Language classrooms to move to the academic side of the building, which in SMMA's opinion there was no case to be made for this change either. Square footage and location for both the bridge and World Language classrooms need to be maintained as proposed.

The Design Sub-committee also discussed locations of exposed or acoustical ceiling tiles versus exposed ceilings and came to the general consensus that classrooms would have closed ceilings while larger areas like gymnasiums, hallways, and the cafeteria might have exposed ceilings. The subcommittee looked at early concepts and photos around the team commons but the discussions are ongoing. The subcommittee reported that burnished concrete was removed from materials palette due to cost and maintainance considerations, and that the subcommittee would be looking at rubber and linoleum for primary flooring materials, with porcelain tiles in the bathroom, and carpet in select locations. The subcommittee also presented support for a textured brick exterior with color discussion ongoing. Mr. Booth noted the subcommittee needs to continue to review SMMA's scoring rubric for various materials including interior wall, ceiling, and floor finishes for further refinement. The subcommittee generally agreed with SMMA's material recommendations.

Mr. Booth added the School Committee discussed the Middle School project on September 14, 2021 regarding alternate revenue and duplicate costs for operating two buildings.

Kristen Olsen, SMMA, presented the questions that were reviewed with the Design Subcommittee. SMMA reviewed with the subcommittee spatial layout and displacement of space like the indents in the building layout and the bridge/entryway, defending both areas to be maintained. Ms. Olsen noted removing the entryway bridge would only be a reallocation of space as it is a critical circulation area for the building. Ms. Olsen reviewed the subcommittee question related to relocating the World Language classrooms which would require distribution on several floors, and would be contrary to the school's need to have the classrooms colocated. SMMA also reviewed the option of relocating the gym closer to the fields and the negative impact it would have on parking and site circulation. Maintaining the proposed location of the gym and auditorium optimizes building footprint and responsiveness to both the educational and community

goals. Mr. Booth added that there was a cantilever/overhang at the entrance of the facility that the subcommittee is looking to reduce if possible. Mr. Booth also noted the subcommittee was awaiting response from SMMA regarding squaring off the media center. Mr. Parker added there were discussions on various laboratories and other facility needs in the public wing, but the discussions were not complete.

Ms. Olsen provided an update to the exterior and interior designs. Ms. Olsen noted there had not been any updates to the site plan. Ms. Olsen added that at the SD phase, the details are at a higher level to create cost placeholders for estimating and that there is still a whole year of detailed design development to happen to continue work on the materials and design features within the approved general material palette. The interior materials will be selected conscientious of the project budget, sustainability and long term building maintenance goals. Ms. Olsen discussed the flooring materials and reflected ceiling plans with the committee and noted there will still be fine tuning as design continues. For the cost estimate plan, SMMA will be representing certain percentages of different materials so the estimators have a basis of design from which adjustments can be made as the documents further develop.

Matt Johnson noted putting the name on the side of the building in large letters is against the Town's sign bylaw and expressed concern with the exposed ceiling and the potential of dust and exposed mechanicals to the students. Mr. Hughes noted that he has no concerns about maintaining the exposed ceiling areas and noted that access beyond and replacement of ceiling tiles is not without difficulty.

Ms. Olsen discussed with the committee the Life Cycle Cost Analysis (LCCA), noting the Sustainability subcommittee be reviewing in detail the LCCA at the next committee meeting. Martine Dion, SMMA, presented three building energy systems with the initial project cost and payback analysis. Ms. Dion noted the three options are near the energy use intensity (EUI) of 25. The design team further reviewed the building energy system relative to the Massachusetts stretch code. Andy Oldeman, SMMA, discussed Scenario 1 (proposed design) with variable refrigerant flow (VRF)/air sourced heat pumps (ASHP) heating and cooling and dedicated outdoor air systems (DOAS) with the committee for the classrooms. The larger spaces for example media center, gym and cafeteria would be supported by dedicated air handling units. Scenario 2 is similar to Scenario 1 with the exception that the auditorium and stage would be supported by displacement ventilation system and the rest of the building would remain VRF. Scenario 3 is geothermal heating and cooling and geothermal DOAS. Mr. Oldeman noted the geothermal wells could not be installed until the existing building is demolished, which would impact the project schedule. The team reviewed the other potential location which would be the parking lot but determined it was not feasible due to conflicts with other utilities and stormwater management for the new school.

Schedule Update

Ian Parks reported on the executive summary schedule to the committee. The schedule shows two phases, Phase 1 for the new school design and construction and Phase 2 for the Sanborn demolition and new fields. After the Town process, design documents and construction documents are estimated to take about 12 months. Mr. Parks noted the pre-qualification process was added to the bid/award section of the schedule showing a 6 month duration. Escalation is being pushed from 8% in Q1 2023 to 9% for Q2 2023. The construction/punch list/move-in phase is now 24 months from the previously reported 21 months with the proposed opening date of April 14, 2025. Phase 2 will start once students move into the new school and will

take 5 months to demolish the existing school and build the new fields. Grass will need to be established for two growing seasons and the new fields will be ready for use in September 2026.

Matt Johnson expressed concern with demolition starting while school is in session and if it was a potential issue. Mr. Parks noted remediation and removal of hazardous materials would happen before demolition of the building. Ms. Guarriello added remediation would not start right away as the school department would need to coordinate and remove the furniture from the old building.

Cash flow Update

Mr. Parks reported on the cash flow noting the only update is SMMA's progress payment in the amount of \$69,318 for the month of August. The expenditures to date are \$902,358.00.

Mr. Parks proposed a scope change in SMMA's contract to perform additional geotechnical explorations before completion of the Schematic Design estimate in order to validate assumptions for foundation design and stormwater management. Funds earmarked for the traffic study would be utilized to cover the costs of the geotechnical exploration work. The committee discussed the concern with the validity of traffic studies with the impact of COVID. The committee did not express any concerns with advancing the geotechnical explorations.

Next Steps

Next meeting will be Thursday, October 7, 2021

New Business

Ms. Bout noted the Communications subcommittee is trying to put together a Public Forum on 9/23/21 at 12 pm and 10/7/21 in the evening.

Public Comment

Linda noted to get input from Town Clerk with timelines needed for the Special Town Meeting and Special Town Election.

Adjournment

Co-Chair Dawn Guarriello requested the meeting be adjourned at 9:30 AM. Stephen Crane made the motion to adjourn, Heather Bout seconded the motion. The motion carried unanimously.

Details of this meeting can be found on the YouTube link below:

<https://www.youtube.com/watch?v=cIrvRNSEOqk>