



SMS

SOMERSET MIDDLE SCHOOL

SMS Building Committee
Ai3 Architects, LLC
CGA Project Management
April 28, 2022



90% Construction Documents: Cost Estimate Comparison

Somerset Middle School



DRAFT

Approved Construction Budget

\$68,956,365

PM&C

90% CD
Cost Estimate

\$71,216,942

Delta **+\$2,260,577**

CHA

90% CD
Cost Estimate

\$73,866,435

Difference	Percentage
\$2,649,493	-0.96%

Total Estimated Construction Cost 90% Construction Documents

Add Alternates

	PM&C Cost	CHA Cost	Difference
#1 Cost to include exterior storage building	\$128,036	\$53,038	-\$74,998
#2 Cost to include multi-purpose field along Brayton Ave.	\$355,277	\$259,486	-\$95,791
#3 Cost to reinstall existing 285kW photovoltaic (PV) system	\$500,000	\$531,383	+\$31,383

1. Estimates assume a construction start of August 2022.
2. Estimates assume public bidding under Chapter 149 (Design - Bid - Build) of the MGL.

90% Construction Documents Cost Estimate Comparison (PM&C: 60%CD vs. 90%CD)

Somerset Middle School

	60%CD	90%CD	Difference		60%CD	90%CD	Difference
A10 FOUNDATIONS	\$4,543,720	\$4,573,833	+\$30 K	D10 CONVEYING SYSTEMS	\$224,000	\$264,000	+\$40 K
Standard Foundations	\$2,343,276	\$2,328,283	-\$15 K	D20 PLUMBING	\$2,306,539	\$2,369,182	+\$63 K
Lowest Floor Construction	\$2,200,444	\$2,245,550	+\$45 K	D30 HVAC	\$6,763,191	\$7,352,870	+\$590 K
B10 SUPERSTRUCTURE	\$5,396,208	\$5,214,584	-\$181 K	D40 FIRE PROTECTION	\$739,470	\$768,250	+\$29 K
Upper Floor Construction	\$3,155,807	\$2,730,427	-\$425 K	D50 ELECTRICAL	\$6,177,481	\$6,429,696	+\$252 K
Roof Construction	\$2,240,401	\$2,484,157	+\$244 K	Service & Distribution	\$1,676,300	\$1,676,300	\$0
B20 EXTERIOR CLOSURE	\$6,941,542	\$7,004,208	+\$63 K	Lighting & Power	\$1,551,739	\$1,921,269	+\$369 K
Exterior Walls	\$4,889,630	\$4,957,858	+\$68 K	Communication & Security Systems	\$2,659,442	\$2,478,062	-\$181 K
Windows	\$1,806,500	\$1,793,010	-\$13 K	Other Electrical Systems	\$290,000	\$354,065	+\$64 K
Exterior Doors	\$245,412	\$253,340	+\$8K	E10 EQUIPMENT	\$1,897,663	\$2,317,989	+\$420 K
B30 ROOFING	\$2,183,310	\$2,575,520	+\$392 K	E20 FURNISHINGS	\$1,481,930	\$1,441,275	-\$41 K
C10 INTERIOR CONSTRUCTION	\$6,379,398	\$6,530,914	+\$151 K	ESCALATION (start date August 2022)	\$783,021	\$525,724	-\$257 K
Partitions	\$3,843,439	\$3,943,516	+\$100 K	DESIGN & PRICING CONTINGENCY	\$939,626	\$633,403	-\$306 K
Interior Doors	\$1,043,491	\$996,903	-\$47 K	BUILDING DEMOLITION	\$749,400	\$749,400	\$0
Specialties/Millwork	\$1,492,468	\$1,590,495	+\$98 K	F20 HAZMAT REMOVALS	\$818,000	\$818,000	\$0
C20 STAIRCASES	\$430,042	\$430,042	\$0	G SITE	\$11,388,618	\$10,644,308	-\$744 K
C30 INTERIOR FINISHES	\$4,221,203	\$3,856,139	-\$365 K	GENERAL CONDITIONS & GENERAL REQUIREMENTS (bonds, insurance, OHP)	\$6,703,549	\$6,717,606	+\$14 K
Wall Finishes	\$1,057,186	\$1,038,675	-\$18 K	TOTAL CONSTRUCTION COST	\$71,067,911	\$71,216,942	
Floor Finishes	\$1,279,664	\$1,121,147	-\$159 K	APPROVED CONSTRUCTION BUDGET	*\$68,956,365	*\$68,956,365	+\$2.3 million
Ceiling Finishes	\$1,884,353	\$1,696,317	-\$188 K	*Excludes costs for existing 285kW PV relocation to the new building			

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90% Construction Documents Cost Estimate Comparison (PM&C: 60%CD vs. 90%CD)

Somerset Middle School

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Ceiling Finishes	\$1,884,353	\$1,696,317	-\$188 K

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GENERAL

- Remove Skylights throughout (Library & Gym corridor)
- Reduce bus loop canopy at Academic Wing by 20% to 10' deep
- Reduce Main entry canopy by 60% to 10' deep
- Reduce Secondary entry canopy by 50% to 8' deep
- Replace GFRP soffit/fascia at roof edge with PVC trim/boards & reduce overhangs
- Reallocate one (1) exterior bathroom to exterior storage
- Replace curtain wall at Auditorium with three (3) storefronts

B20 EXTERIOR CLOSURE

- Replace storefront & sidelight with hollow metal door at Chorus egress door
- Reduce storefronts at Tech/Engineering Classrooms
- Reduce horizontal sunshades at Science classrooms by 50%
- Replace overhead door at stage with 8' x 9' hollow metal double door

B30 ROOFING

- Replace PVC roof membrane with EPDM (white or grey) as an ADD/ALT

Value Engineered

GENERAL

-\$355,963

B20 EXTERIOR CLOSURE

-\$48,380

B30 ROOFING

-\$185,000

90% Construction Documents Cost Estimate Comparison (PM&C: 60%CD vs. 90%CD)

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Wall Finishes	\$1,057,186	\$1,038,675	-\$18 K
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Ceiling Finishes	\$1,884,353	\$1,696,317	-\$188 K

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C10 INTERIOR CONSTRUCTION

- Remove operable glass walls at Project Labs
- Remove/reduce display cases at Lower Level, Auditorium, Art Gallery, and Art Classrooms
- Remove student storage units at Student Dining; recess in wall & hooks to remain
- Remove movable partitions & grid system at Art Display in Secondary Lobby & replace with tack board surface
- Replace storefronts with hollow metal
- Replace storefront doors (fire rated) at Stair 1 (3x) with hollow metal fire rated doors

C30 INTERIOR FINISHES

- Replace porcelain floor tile/base in toilet rooms with poured urethane flooring
- Remove wood grilles at ceiling in Library Media Center & replace with 2x2 ACT
- Remove wood flooring at assembly stair
- Remove sheet vinyl in its entirety & replace with LVT
- Remove wood panels at Classroom entries & replace with paint
- Reduce & consolidate ACT types throughout
- Remove sound diffusers in Chorus/Auditorium & replace with an alternate acoustic treatment
- Reduce paint lines by 50% throughout

Value Engineered

C10 INTERIOR CONSTRUCTION

-\$358,064

C30 INTERIOR FINISHES

-\$457,376

90%Construction Documents Cost Estimate Comparison (PM&C: 60%CD vs. 90%CD)

	60%CD	60%CD	Difference		Value Engineered
D10 CONVEYING SYSTEMS	\$224,000	\$264,000	+\$40 K	D50 ELECTRICAL/TECHNOLOGY	D50 ELECTRICAL/TECHNOLOGY -\$390,400
D20 PLUMBING	\$2,306,539	\$2,369,182	+\$63 K		
D30 HVAC	\$6,763,191	\$7,352,870	+\$590 K		
D40 FIRE PROTECTION	\$739,470	\$768,250	+\$29 K		
D50 ELECTRICAL	\$6,177,481	\$6,429,696	+\$252 K	<ul style="list-style-type: none"> Remove back of classroom HDMI transmitter/receiver (for secondary desk location) Remove voice lift system Move hovercams to Technology budget Remove portable sound system Remove mobile assistive listening system Reduce Main entry 98" display to 65" display Remove field & storage unit cameras Reduce parking cameras by 50% Provide only one pole per parking lot for four (4) cameras 	
Service & Distribution	\$1,676,300	\$1,676,300	\$0 K		
Lighting & Power	\$1,551,739	\$1,921,269	+\$369 K		
Communication & Security Systems	\$2,659,442	\$2,478,062	-\$181 K		
Other Electrical Systems	\$290,000	\$354,065	+\$64 K		
E10 EQUIPMENT	\$1,897,663	\$2,317,989	+\$420 K	E10 EQUIPMENT	E10 EQUIPMENT -\$77,600
E20 FURNISHINGS	\$1,481,930	\$1,441,275	-\$41 K		
BUILDING DEMOLITION	\$749,400	\$749,400	\$0		
F20 HAZMAT REMOVALS	\$818,000	\$818,000	\$0	G20 SITE IMPROVEMENTS	G20 SITE IMPROVEMENTS -\$623,119
G SITE	\$11,388,618	\$10,644,308	-\$744 K		

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	60%CD	90%CD	Difference	VE		60%CD	90%CD	Difference	VE
A10 FOUNDATIONS	\$4,543,720	\$4,573,833	+\$30 K		D10 CONVEYING SYSTEMS	\$224,000	\$224,000	\$0	
Standard Foundations	\$2,343,276	\$2,328,283	-\$15 K		D20 PLUMBING	\$2,232,325	\$2,306,539	+\$74 K	
Lowest Floor Construction	\$2,200,444	\$2,245,550	+\$45 K		D30 HVAC	\$6,215,010	\$6,763,191	+\$548 K	
B10 SUPERSTRUCTURE	\$5,396,208	\$5,214,584	-\$181 K		D40 FIRE PROTECTION	\$743,160	\$739,470	-\$4 K	
Upper Floor Construction	\$3,155,807	\$2,730,427	-\$425 K		D50 ELECTRICAL/TECHNOLOGY	\$5,598,187	\$6,177,481	+\$579 K	-\$390,400
Roof Construction	\$2,240,401	\$2,484,157	+\$244 K		Service & Distribution	\$1,673,985	\$1,676,300	+\$2 K	
B20 EXTERIOR CLOSURE	\$6,941,542	\$7,004,208	+\$63 K	-\$48,380	Lighting & Power	\$1,470,147	\$1,551,739	+\$82 K	
Exterior Walls	\$4,889,630	\$4,957,858	+\$68 K		Communication & Security Systems	\$2,360,055	\$2,659,442	+\$299 K	
Windows	\$1,806,500	\$1,793,010	-\$13 K		Other Electrical Systems	\$94,000	\$290,000	+\$196 K	
Exterior Doors	\$245,412	\$253,340	+\$8K		E10 EQUIPMENT	\$1,459,505	\$1,897,663	+\$438 K	-\$77,600
B30 ROOFING	\$2,183,310	\$2,575,520	+\$392 K	-\$185,000	E20 FURNISHINGS	\$1,350,324	\$1,481,930	+\$132 K	
C10 INTERIOR CONSTRUCTION	\$6,379,398	\$6,530,914	+\$151 K	-\$358,064	ESCALATION (start date August 2022)	\$1,332,073	\$783,021	-\$549 K	-\$20,716
Partitions	\$3,843,439	\$3,943,516	+\$100 K		DESIGN & PRICING CONTINGENCY	\$2,368,130	\$939,626	-\$1.4 million	-\$24,959
Interior Doors	\$1,043,491	\$996,903	-\$47 K		BUILDING DEMOLITION	\$749,400	\$749,400	\$0	
Specialties/Millwork	\$1,492,468	\$1,590,495	+\$98 K		F20 HAZMAT REMOVALS	\$818,000	\$818,000	\$0	
C20 STAIRCASES	\$430,042	\$430,042	\$0		G SITE	\$10,762,185	\$11,388,618	+\$626 K	-\$623,119
C30 INTERIOR FINISHES	\$4,221,203	\$3,856,139	-\$365 K	-\$457,376	GENERAL CONDITIONS & GENERAL REQUIREMENTS (bonds, insurance, OHP)	\$6,551,394	\$6,703,549	+\$152 K	-\$205,912
Wall Finishes	\$1,057,186	\$1,038,675	-\$18 K		TOTAL CONSTRUCTION COST	*\$68,954,842	\$71,216,942		-\$2,747,489
Floor Finishes	\$1,279,664	\$1,121,147	-\$159 K		APPROVED CONSTRUCTION BUDGET		*\$68,956,365	+\$2.3 million	
Ceiling Finishes	\$1,884,353	\$1,696,317	-\$188 K		*Excludes costs for existing 285kW PV relocation to the new building				
TOTAL ESTIMATED CONSTRUCTION COST AFTER VE						\$68,671,757	-\$486,912		

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