

APPENDIX 6

3.7 Cost Estimate

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**Florence Roche Feasibility Study PSR
Comparative Probable Cost Analysis - Detail**



April 23, 2020

* Please note that GSF values shown in this analysis may not align with the PSR space summary. This document is not to be construed as a project budget; it is a comparable cost analysis.

Preferred option

	Leftfield		Leftfield		Leftfield		PM&C 4-22-20		Leftfield	
	Code / Addition		Addition / Reno		Scheme H / Behind Flor Ro		Scheme H / Behind Flor Ro		Scheme E / Behind Middle	
	Florence Roche Site Options									
	OPTION 1 Code Upgrade	OPTION 2 Addition/Reno	OPTION 3.2f - 645 S New Build	OPTION 3.2f - 645 S New Build	OPTION 4 - 645 S New Build					
1	Grade Configuration Enrollment	K-4 645	K-4 645	K-4 645	K-4 645					
2	Anticipated duration of Building construction	30 months	30 months	24 months	24 months					
3	Anticipated start of construction	2 Q 2022	2 Q 2022	2 Q 2022	2 Q 2022					
4	* Assumed square footage [subject to change]	116,140 * (b)	116,140 * (b)	111,656 *	111,720 *					
5	Cost/SF - New building/Renovation GSF (line 10 / line 4)	\$320	\$326	\$347	\$333					
6	Cost/SF - Construction Hard Costs (line 19 / line 4)	\$500	\$508	\$553	\$546					
7	Cost/SF - Total Project Cost (line 44 / line 4)	\$688	\$692	\$698	\$689					
8										
9	Hard Costs	\$58,065,941 (a)	\$58,974,273 (a)	\$61,732,633 (a)	\$60,984,827 (a)					\$63,805,298 (a)
10	Building construction	\$37,220,315	\$37,892,195	\$38,707,641	\$37,193,074					\$39,740,761
11	Sitework (a)	\$4,137,500	\$4,137,500	\$5,150,000	\$4,368,522					\$5,650,000
12										
13	Building take downs	\$35,000	\$35,000	\$555,744	\$555,744					\$555,744
14	ACM abatement (OOM cost/sf)	\$1,249,360	\$1,249,360	\$1,249,360	\$1,249,360					\$1,249,360
15										
16	CM Contingency (varies)	\$1,066,054 3.0%	\$1,082,851 3.0%	\$1,141,569 2.5%	\$1,452,020					\$1,179,897 2.5%
17	CM/GC PR/GC - mgmt. during constr.	\$5,040,639 Prem	\$5,114,546 Prem	\$5,022,902	\$4,668,191					\$5,191,545
18	CM/Trade Insurances (\$24/\$1,000)	\$1,189,973	\$1,188,275	\$1,243,863	\$1,290,159					\$1,285,615
19	CM/GC P+P Bonds (\$10/\$1,000)	\$499,188	\$506,997	\$530,711	\$516,064					\$548,529
20	CM Fee (2.5%)	\$1,260,451	\$1,280,168	\$1,340,044	\$1,452,020					\$1,385,036
21										
22	Escalation (6%/year)	\$6,387,460	\$6,487,380	\$6,790,809	\$3,035,669					\$7,018,810
23	Design & Estimating Contingency	Incl above	Incl above	Incl above	\$5,204,004					Incl above
24	Soft Costs	\$16,863,919	\$16,365,419	\$12,470,058	\$12,364,148					\$12,791,321
25	Site acquisitions (includes closing costs)	N/A	N/A	N/A	N/A					N/A
26										
27	Design costs (includes feas. study costs & consult. reim)	\$7,482,913 12%	\$7,329,913 12%	\$6,426,263 10%	\$6,351,483 10%					\$6,633,530 10%
28	OPM costs (includes feasibility study costs)	\$3,688,956 6.0%	\$3,333,456 6.0%	\$3,190,295 5.5%	\$3,149,165 5.5%					\$3,304,291 5.5%
29	CM pre-construction fee	\$275,000	\$275,000	\$225,000	\$225,000					\$225,000
30										
31	FF+E / technology - MSBA allowable (\$2,400/student)	\$2,012,400 Prem	\$2,012,400 Prem	\$1,548,000	\$1,548,000					\$1,548,000
32	FF+Tech Premium (\$900/student)	\$754,650 Prem	\$754,650 Prem	\$580,500	\$580,500					\$580,500
33										
34	Traffic mitigation	N/A	N/A	N/A	N/A					N/A
35	Temp swing space / modulars / storage	\$2,100,000	\$2,100,000	N/A	N/A					N/A
36	Relocation / moving expenses	\$250,000	\$250,000	\$150,000	\$150,000					\$150,000
37	Utilities B/C, Material testing	\$150,000	\$150,000	\$200,000	\$200,000					\$200,000
38	Misc. expenses (legal, misc admin, other)	\$150,000	\$150,000	\$150,000	\$150,000					\$150,000
39										
40	Owner Contingency Costs	\$4,965,878	\$5,034,431	\$3,710,135	\$3,666,949					\$3,829,831
41	Owner Hard contingency (varies)	\$4,122,682 Blend	\$4,216,660 Blend	\$3,086,632 5.0%	\$3,049,241 5.0%					\$3,190,265 5.0%
42	Owner Soft contingency (5%) on total soft costs	\$843,196 5.0%	\$817,771 5.0%	\$623,503 5.0%	\$617,707 5.0%					\$639,566 5.0%
43										
44	Comparative Probable Cost Values	\$79,895,738	\$80,364,123	\$77,912,826	\$77,005,924					\$80,426,450
45		\$79.9	\$80.4	\$77.9	\$77.0					\$80.4
46	OPTION INDEX % above(below)	3%	3%	Base	3%					3%
47	% of total project value compared to total hard costs value	78%	79%	83%	83%					83%
48	% of total project value compared to total soft costs value	22%	21%	17%	17%					17%
49										
50	Analysis Qualifications:									
51	(a) Disposal of contaminated soil and ledge removal is EXCLUDED. Unknown at this time.									
52	(b) GSF increase due to anticipated design-program inefficiencies.									
53										
54	MSBA Estimated Grant Analysis - Ineligible and Excluded scope/costs									
55	Design/OPM	\$3,243,968	\$2,561,842	\$1,193,653						\$1,235,106
56	8% Site cost overage	\$1,159,875	\$1,106,124	\$2,053,389						\$2,470,739
57	\$333/SF MSBA limit, includes building SF overage	\$16,063,001	\$17,044,887	\$19,334,790						\$20,843,228
58	CM directs based on ineligible construction costs	\$419,529	\$399,920	\$722,640						\$869,516
59	Demolition/ACM abatement (not incl. flooring)	\$0	\$0	\$0						\$0
60	ACM flooring abatement (not calculated / included)	\$0	\$0	\$0						\$0
61	Moving/Legal/Other	\$2,500,000	\$2,500,000	\$300,000						\$300,000
62	FF+E premium	\$1,219,050	\$1,219,050	\$580,500						\$580,500
63	Hard contingency	\$2,981,383	\$3,037,175	\$2,469,305						\$2,552,212
64	Soft contingency (assumes 80% is ineligible)	\$874,557	\$854,217	\$498,802						\$511,653
65										
66	Estimated Total Facilities Grant	\$51,654,395	\$51,840,908	\$50,759,747						\$51,063,495
67	Base Reimbursement rate	48.27	48.27	48.27						48.27
68	Assumed Additional Reimbursement Rate Points	5.41	5.41	3.00						3.00
69	Estimated Max Facilities Grant	\$27,728,313	\$27,828,434	\$26,024,522						\$26,180,254
70	Estimated District (Groton) share of TPC	\$52,167,425	\$52,535,689	\$51,888,304						\$53,703,734
71	GROTON SHARE	\$52.2	\$52.5	\$51.9						\$53.7

★ Disclaimer ★ These values are not to be considered project budget values. This analysis is solely to be utilized as a comparative probable cost analysis to assist in determining which options may be further considered and studied. These values are subject to change as options are further developed.

THIS IS NOT TO BE CONSIDERED FINAL BUDGET. THIS IS A COMPARATIVE PROBABLE COST ANALYSIS BASED ON CONCEPTUAL DESIGNS.

THESE VALUES ARE APPROXIMATE AND ARE SUBJECT TO FINAL ADJUST BY THE MSBA

Florence Roche Feasibility Study - PSR Cost Estimate
 April 2020
Option 1 - Code Upgrade with Addition, 645 students

OPTION 1 - 645

Unformat II Level 2

GSF 116,140

General Statistics	New	Reno	Notes
Gross Square Footage:	60,150	55,990	
Building Footprint [SOG]:	24,000	0	
Supported Floor Deck [SOD]:	36,150	0	
Roof Area:	24,000	47,790	
Exterior Wall Surface Area:	20,580	15,960	
# Elevator Stops:	3	0	

New Construction - "the box"	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				\$1,490,000
A10 - Foundations	24,000	sf	\$55.00	\$1,320,000
A10 - Foundations, premium high wall work	200	lf	\$850.00	\$170,000
A10 - Foundations, additional excavation and export	0	cy	\$45.00	\$0
A20 - Basement Construction		none		\$0
B - SHELL				\$5,670,900
B10 - Superstructure, supported floors	36,150	sf	\$46.00	\$1,662,900
B10 - Superstructure, supported roofs	24,000	sf	\$35.00	\$840,000
B20 - Exterior enclosure	20,580	sfsa	\$120.00	\$2,469,600
B20 - Exterior enclosure, join to old work	5,460	sfsa	\$40.00	\$218,400
B30 - Roofing	24,000	sf	\$20.00	\$480,000
C - INTERIORS				\$4,451,100
C10 - Interior construction	60,150	sf	\$44.00	\$2,646,600
C20 - Stairwells	60,150	sf	\$2.00	\$120,300
C30 - Interior Finishes	60,150	sf	\$28.00	\$1,684,200
D - SERVICES				\$7,683,450
D10 - Conveying systems	3	stops	\$95,000.00	\$285,000
D20 - Plumbing	60,150	sf	\$23.00	\$1,383,450
D30 - HVAC	60,150	sf	\$57.00	\$3,428,550
D40 - Fire Protection	60,150	sf	\$7.00	\$421,050
D50 - Electrical	60,150	sf	\$36.00	\$2,165,400
E - EQUIPMENT & FURNISHINGS				\$1,142,850
E10 - Equipment	60,150	sf	\$6.00	\$360,900
E20 - Furnishings	60,150	sf	\$13.00	\$781,950
Subtotal - New Construction "the box"				\$20,438,300

Special Construction; Demolition. + Abatement	Quantity	Unit	Unit Cost	Total
F - SPECIAL CONSTRUCTION & DEMOLITION				\$1,284,360
F10 - Special construction		none		\$0
F20 - Building Demolition	7,000	sf	\$5	\$35,000
F20 - Asbestos Abatement	62,468	sf	\$20	\$1,249,360
Subtotal - Special Constr; Demo. + Abatement				\$1,284,360

Florence Roche Feasibility Study - PSR Cost Estimate
 April 2020
Option 1 - Code Upgrade with Addition, 645 students

OPTION 1 - 645

Unformat II Level 2

			GSF	116,140
Renovation:	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				\$196,800
A10 - Foundations	8,200	sf	\$4.00	\$32,800
A20 - Basement Construction	8,200	sf	\$20.00	\$164,000
B - SHELL				\$3,399,570
B10 - Superstructure	55,990	sf	\$8.00	\$447,920
B10 - Superstructure related to MEP's	55,990	sf	\$10.00	\$559,900
B20 - Exterior enclosure	15,960	sfsa	\$75.00	\$1,197,000
B30 - Roofing	47,790	sf	\$25.00	\$1,194,750
C - INTERIORS				\$4,227,245
C10 - Interior construction	55,990	sf	\$35.00	\$1,959,650
C10 - Interior gut	55,990	sf	\$15.00	\$839,850
C20 - Stairwells	55,990	sf	\$1.50	\$83,985
C30 - Interior Finishes	55,990	sf	\$24.00	\$1,343,760
D - SERVICES				\$6,774,790
D10 - Conveying systems	0	stops	\$95,000.00	\$0
D20 - Plumbing	55,990	sf	\$20.00	\$1,119,800
D30 - HVAC	55,990	sf	\$57.00	\$3,191,430
D40 - Fire Protection	55,990	sf	\$10.00	\$559,900
D50 - Electrical	55,990	sf	\$34.00	\$1,903,660
E - EQUIPMENT & FURNISHINGS				\$1,063,810
E10 - Equipment	55,990	sf	\$6.00	\$335,940
E20 - Furnishings	55,990	sf	\$13.00	\$727,870
Construction Phasing/Logistics Premium	55,990	sf	\$20.00	\$1,119,800
Subtotal - Renovation				\$16,782,015

Sitework & Utilities

G - SITEWORK & UTILITIES				\$4,137,500
G10 - Site Preparation	325,000	sf	\$3	\$812,500
G20 - Site Improvements	325,000	sf	\$7	\$2,275,000
G30 - Site Civil/Mechanical Utilities	1	plug	\$750,000	\$750,000
G40 - Site Electrical Utilities	1	plug	\$300,000	\$300,000
Subtotal - Sitework				\$4,137,500

Total Project Budget

OPTION 1 - Code / Add

Insert City/Town School Building Committee Reviewed on: Insert Date of SBC Review Date

Insert School Name	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹	Review Date
Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(f)					
1 Feasibility Study Agreement	\$205,000	\$0	\$205,000	\$0	
2 OPM Feasibility Study	\$456,000	\$0	\$456,000	\$0	
3 A&E Feasibility Study	\$59,000	\$0	\$59,000	\$0	
4 Environmental & Site	\$30,000	\$0	\$30,000	\$0	
5 Other	\$0	\$0	\$0	\$0	
Feasibility Study Agreement Subtotal	\$750,000	\$0	\$750,000	\$402,603	
7 Administration	\$50,000	\$50,000	\$0	\$0	
8 Legal Fees	\$3,453,956	\$1,626,649	\$1,827,307	\$0	
9 Owner's Project Manager	\$0	\$0	\$0	\$0	
10 Design Development	\$0	\$0	\$0	\$0	
11 Construction Contract Documents	\$0	\$0	\$0	\$0	
12 Bidding	\$0	\$0	\$0	\$0	
13 Construction Contract Administration	\$0	\$0	\$0	\$0	
14 Closeout	\$0	\$0	\$0	\$0	
15 Extra Services	\$0	\$0	\$0	\$0	
16 Reimbursable & Other Services	\$0	\$0	\$0	\$0	
17 Cost Estimates	\$0	\$0	\$0	\$0	
18 Advertising	\$0	\$0	\$0	\$0	
19 Other Insurance	\$0	\$0	\$0	\$0	
20 Other Administrative Costs	\$0	\$0	\$0	\$0	
21 Other Administrative Costs	\$0	\$0	\$0	\$0	
22 Administration Subtotal	\$3,403,956	\$1,676,649	\$1,827,307	\$980,907	
Architecture and Engineering					
23 Basic Services	\$6,967,913	\$1,617,319	\$5,350,594	\$0	
24 Design Development	\$0	\$0	\$0	\$0	
25 Construction Contract Documents	\$0	\$0	\$0	\$0	
26 Bidding	\$0	\$0	\$0	\$0	
27 Construction Contract Administration	\$0	\$0	\$0	\$0	
28 Closeout	\$0	\$0	\$0	\$0	
29 Other Basic Services	\$0	\$0	\$0	\$0	
30 Basic Services Subtotal	\$6,967,913	\$1,617,319	\$5,350,594	\$0	
31 Reimbursable Services	\$0	\$0	\$0	\$0	
32 Construction Testing	\$0	\$0	\$0	\$0	
33 Printing (over minimum)	\$0	\$0	\$0	\$0	
34 Other Reimbursable Costs	\$0	\$0	\$0	\$0	
35 Hazardous Materials	\$0	\$0	\$0	\$0	
36 Geotech & Geo-Env.	\$0	\$0	\$0	\$0	
37 Site Survey	\$0	\$0	\$0	\$0	
38 Wetlands	\$0	\$0	\$0	\$0	
39 Traffic Studies	\$0	\$0	\$0	\$0	
40 Architectural/Engineering Subtotal	\$6,967,913	\$1,617,319	\$5,350,594	\$2,872,223	
CM & BA Preconstruction Services					
41 Pre-Construction Services	\$275,000	\$0	\$275,000	\$0	
42 Site Acquisition	\$0	\$0	\$0	\$147,621	
43 Land/ Building Purchase	\$0	\$0	\$0	\$0	
44 Appraisal Fees	\$0	\$0	\$0	\$0	
45 Recording Fees	\$0	\$0	\$0	\$0	
46 Site Acquisition Subtotal	\$0	\$0	\$0	\$0	
Construction Costs					
47 SUBSTRUCTURE	\$37,220,315	\$0	\$37,220,315	\$0	
48 Foundations	\$0	\$0	\$0	\$0	
49 Basement Construction	\$0	\$0	\$0	\$0	
50 SHELL	\$0	\$0	\$0	\$0	
51 SuperStructure	\$0	\$0	\$0	\$0	
52 Exterior Closure	\$0	\$0	\$0	\$0	
53 Exterior Walls	\$0	\$0	\$0	\$0	
54 Exterior Windows	\$0	\$0	\$0	\$0	
55 Exterior Doors	\$0	\$0	\$0	\$0	
56 Roofing	\$0	\$0	\$0	\$0	
57 INTERIORS	\$0	\$0	\$0	\$0	
58 Interior Construction	\$0	\$0	\$0	\$0	
59 Staircases	\$0	\$0	\$0	\$0	
60 Interior Finishes	\$0	\$0	\$0	\$0	
61 SERVICES	\$0	\$0	\$0	\$0	
62 Conveying Systems	\$0	\$0	\$0	\$0	
63 Plumbing	\$0	\$0	\$0	\$0	
64 HVAC	\$0	\$0	\$0	\$0	
65 Fire Protection	\$0	\$0	\$0	\$0	
66 Electrical	\$0	\$0	\$0	\$0	
67 EQUIPMENT & FURNISHINGS	\$0	\$0	\$0	\$0	
68 Equipment	\$0	\$0	\$0	\$0	

ProRated 20% Exclusion
 \$0 -Administration
 \$0 -A/E Services
 \$0 -Miscellaneous Proj Costs
 \$8,077,901 Sum of Three Soft Costs
 \$2,062,307 -Administration
 \$5,865,594 -A/E Services
 Eligible Soft Costs Category
 \$1,548,000 -Miscellaneous Proj Costs
 \$1,548,000 FFE
 \$9,625,901 Total Eligible Soft Costs

Construction Costs associated with Soft Cost Cap Calculation
 Construction Costs Category
 \$275,000 -CM Preconstruction services
 \$58,065,941 -Construction Cost
 \$58,940,941 -Construction Contingency
 \$58,940,941 Total Construction Cost
 20% Soft Cost Allowance
 \$11,668,188 Reimbursable Soft Cost

-\$2,042,287 Eligible minus Reimbursable is negative OK.
 -If Eligible minus Reimbursable is positive per value into Soft Costs that exceed 20% of Construction Cost below in the ineligible column.

Construction Budget \$58,065,941
 Eligible Fees % of Total Construction 3.50% Value > 3.5%
 \$3,656,956 \$2,032,307 6.30% \$2,032,308 \$0
 \$30,000 0.05%
 Designer Value @ 10.00% Value > 10%
 \$7,423,913 \$5,806,594 12.79% \$5,806,594 \$0
 \$59,000 0.10%

Total Project Budget

Insert City/Town
Insert School Name

School Building Committee Reviewed on: _____
Insert Date of SBC Review Date

OPTION 1 - Code / Add

	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
72	\$0	Furnishings	\$0	
73	\$0	SPECIAL CONSTRUCTION & DEMOLITION	\$0	
74	\$0	Special Construction	\$0	
75	\$35,000	Existing Building Demolition	\$35,000	
76	\$1,249,360	In-Bldg. Hazardous Material Abatement	\$1,249,360	
77	\$0	Asbestos Cont'g Floor Mat Abatement	\$0	
78	\$0	Other Hazardous Material Abatement	\$0	
79	\$0	BUILDING SITEWORK	\$0	
80	\$4,137,500	Site Preparation	\$4,137,500	
81	\$0	Site Improvements	\$0	
82	\$0	Site Civil / Mechanical Utilities	\$0	
83	\$0	Site Electrical Utilities	\$0	
84	\$0	Other Site Construction	\$0	
85	\$0	Scope Excluded Site Cost	\$0	
86	\$42,642,175	Construction Trades Subtotal	\$1,159,875	
87	\$0	Contingencies (Design and Pricing)	\$0	
88	\$0	D/B/B Sub-Contractor Bonds	\$0	
89	\$0	D/B/B Insurance	\$0	
90	\$0	D/B/B General Conditions	\$0	
91	\$0	D/B/B Overhead & Profit	\$245,789	
92	\$0	GMP Insurance	\$0	
93	\$0	GMP Contingency	\$0	
94	\$0	Escalation to Mid-Point of Construction	\$173,740	
95	\$6,387,460	Overall Excluded Construction Cost	\$16,065,001	
96	\$55,065,941	Construction Budget	\$17,642,405	\$40,423,536
97	\$0	Alternates	\$0	\$21,699,537
98	\$0	Ineligible Work included in the Base Project	\$0	
99	\$0	Alternates Excluded from the Total Project Budget	\$0	
100	\$0	Alternates Excluded from the Total Project Budget	\$0	
101	\$0	Alternates Excluded from the Total Project Budget	\$0	
102	\$0	Subtotal to be included in Total Project Budget	\$0	\$0
103	\$0	Miscellaneous Project Costs	\$0	
104	\$150,000	Utility Company Fees	\$0	
105	\$150,000	Testing Services	\$150,000	
106	\$2,350,000	Swing Space / Modules	\$2,350,000	
107	\$100,000	Other Project Costs (Mailing & Moving)	\$100,000	
108	\$2,600,000	Misc. Project Costs Subtotal	\$2,450,000	\$150,000
109	\$0	Furniture, Fixtures and Equipment	\$0	
110	\$1,383,525	Technology	\$609,525	\$774,000
111	\$1,383,525	Technology	\$609,525	\$774,000
112	\$2,787,050	FF&E Subtotal	\$1,219,050	\$1,568,000
113	\$0	Soft Costs that exceed 20% of Construction Cost	\$0	
114	\$74,929,660	Project Budget	\$24,605,423	\$50,324,437
115	\$74,929,660	Board Authorization	\$24,605,423	\$50,324,437
116	645	Design Enrollment	645	
117	116,140	Total Building Gross Floor Area (GSF)	116,140	
118	\$74,929,660	Total Project Budget (excluding Contingencies)	\$74,929,660	
119	\$24,605,423	Scope Items Excluded or Otherwise Ineligible	\$24,605,423	
120	\$0	Third Party Funding (Ineligible)	\$0	
121	\$50,324,437	Estimated Basis of Maximum Total Facilities Grant ¹	\$50,324,437	
122	53.68%	Reimbursement Rate	53.68%	
123	\$27,014,386	Est. Max. Total Facilities Grant (before recovery) ¹	\$27,014,386	
124	\$0	Cost Recovery ²	\$0	
125	\$27,014,386	Estimated Maximum Total Facilities Grant ¹	\$27,014,386	
126	\$4,122,682	Construction Contingency ³	\$4,122,682	
127	\$2,961,363	Ineligible Construction Contingency ³	\$2,961,363	
128	\$1,161,319	"Potentially Eligible" Construction Contingency ³	\$1,161,319	
129	\$843,196	Owner's Contingency ³	\$843,196	
130	\$674,557	Ineligible Owner's Contingency ³	\$674,557	
131				

School Building Committee Reviewed on: _____
Insert Date of SBC Review Date

OPTION 1 - Code / Add

Site Cost Reimbursement = 8.0% Eligible Site Costs
Direct Site Cost Excluded \$4,137,500 Eligible Site Costs \$4,137,500
Direct Building Cost \$37,220,315
Scope Excluded Site Cost \$2,977,625 Reimbursable Site Cost \$1,159,875
If Eligible minus Reimbursable is negative OK. No ineligible needed.
If Eligible minus Reimbursable is positive enter value into Scope Excluded Site Cost

Construction Cost Reimbursement
\$35,000 Eligible Demo
\$1,249,360 Eligible Abatement
\$1,284,360 Total Eligible Demo & Abatement
\$0 D&P 0.00% % of Trades \$500 Total \$/sf
\$0 Bonds 0.00% % of Trades \$ 348.06 Eligible \$/sf
\$0 Insurance 0.00% % of Trades
\$0 Gen Cond 0.00% % of Trades
\$0 O&P 0.00% % of Trades
\$272,169 GMP Ins 21.19% % of Trades
\$0 GMP Fee 0.00% % of Trades
\$0 GMP cont. 0.00% % of Trades
\$1,745,916 Escalation 14.98% % of Cumulative sum of Trades and Markups
\$1,745,916 Marked Up Demo & Abatement
\$40,423,536 Eligible Construction Cost
116,140 Proposed GSF: Manually enter eligible area if less than total area
\$ 333 Reimbursable Construction Cost for New Construction \$/sf (subject to change)
\$ 38,674,620 Reimbursable Construction Cost
\$1,748,916 Marked Demo & Abatement
\$ 40,423,536 Reimbursable Construction Cost
\$0 Eligible Minus Reimbursable
If Eligible minus Reimbursable is negative OK. No ineligible entry needed.
If Eligible minus Reimbursable is positive enter value into Overall Excluded Construction Cost

FF&E Reimbursement
Funding Limits
Enrollment Reimbursable Amount Est'd Budget Ineligible*
\$1,200 /student \$774,000 \$1,383,525 \$609,525
\$1,200 /student \$774,000 \$1,383,525 \$609,525
*If Ineligible is \$0 or negative OK.
†If Ineligible Amount is positive enter value for each into Scope Excluded Cost.

1.00 (0-2) Maintenance
0.00 (0-1) CM @ Risk
0.00 (0-6) Newly Formed Regional School District
2.41 (0-5) Major Reconstruction or Reno/Reuse type in rounded to 2 decimal places
2.41 55,990 gsf Renovated or Existing to Remain
116,140 gsf Total at Conclusion of Project
0.00 (0-1) Overlay Zoning 40R and 40S
0.00 (0-0.5) Overlay Zoning 100 units or 50% of units 1, 2, or 3 family structures
2.00 (0-2) Energy Efficiency - "Green Schools"
0.00 (5) Model Schools
5.41 Total Incentive Points

48.27 Reimbursement Rate Before Incentive Points
5.41 Total Incentive Points
53.68% MSBA Reimbursement Rate

NOTES
This template was prepared by the MSBA as a tool to assist Districts and consultants in understanding MSBA policies and practices regarding potential impact on the MSBA's or a participating local government's facilities. This template does not constitute a list of all conditions which the MSBA may use in determining whether items are eligible for reimbursement by the MSBA. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed school project that may or may not agree with the estimates generated by the District using this template.
1. Does not include any potentially eligible contingency funds and is subject to review and audit by the MSBA.
2. The proposed demolition of the _____ School is expected to result in the MSBA recovering a portion of state funds previously paid to the District for the _____ project at the existing facilities completed in _____. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed project. This project may or may not agree with the estimated cost recovery generated by the District, and its consultants using this template.

Rev. 6 August 2017

OPTION 1 - Code / Add

Total Project Budget

Insert City/Town Insert School Name	School Building Committee Reviewed on:	Insert Date of SBC Review Date
132	Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(6)	
133	"Potentially Eligible" Owner's Contingency ²	
134	Total Potentially Eligible Contingency ²	
135	Reimbursement Rate	
136	Potential Additional Contingency Grant Funds ³	
137	Maximum Total Facilities Grant	
	Total Project Budget	
	Estimated MSBA Share	
	Estimated District Share	
		\$0 TEST
		\$0 TEST

Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
3: Pursuant to Section 3.20 of the Project Funding Agreement and the applicable policies and guidelines of the Authority, any project costs associated with the reallocation or transfer of funds from either the Owner's contingency or the Authority's contingency to the project shall be subject to the Authority's review and audit for reimbursement. All costs are subject to review and audit by the MSBA.	\$168,639	
	\$1,329,958	
	53.68%	
	\$713,927	
	\$27,728,313	
	\$79,895,738	
	\$27,728,313	
	\$52,167,425	
	\$79,895,738	

Florence Roche Feasibility Study - PSR Cost Estimate

April 2020

Option 2 - Addition/Renovation, 645 students

OPTION 2 - 645

Unformat II Level 2

GSF 116,140

General Statistics	New	Reno	Notes
Gross Square Footage:	60,150	55,990	
Building Footprint [SOG]:	24,000	0	
Supported Floor Deck [SOD]:	36,150	0	
Roof Area:	24,000	47,790	
Exterior Wall Surface Area:	20,580	15,960	
# Elevator Stops:	3	0	

New Construction - "the box"	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				\$1,490,000
A10 - Foundations	24,000	sf	\$55.00	\$1,320,000
A10 - Foundations, premium high wall work	200	lf	\$850.00	\$170,000
A10 - Foundations, additional excavation and export	0	cy	\$45.00	\$0
A20 - Basement Construction		none		\$0
B - SHELL				\$5,670,900
B10 - Superstructure, supported floors	36,150	sf	\$46.00	\$1,662,900
B10 - Superstructure, supported roofs	24,000	sf	\$35.00	\$840,000
B20 - Exterior enclosure	20,580	sfsa	\$120.00	\$2,469,600
B20 - Exterior enclosure, join to old work	5,460	sfsa	\$40.00	\$218,400
B30 - Roofing	24,000	sf	\$20.00	\$480,000
C - INTERIORS				\$4,451,100
C10 - Interior construction	60,150	sf	\$44.00	\$2,646,600
C20 - Stairwells	60,150	sf	\$2.00	\$120,300
C30 - Interior Finishes	60,150	sf	\$28.00	\$1,684,200
D - SERVICES				\$7,683,450
D10 - Conveying systems	3	stops	\$95,000.00	\$285,000
D20 - Plumbing	60,150	sf	\$23.00	\$1,383,450
D30 - HVAC	60,150	sf	\$57.00	\$3,428,550
D40 - Fire Protection	60,150	sf	\$7.00	\$421,050
D50 - Electrical	60,150	sf	\$36.00	\$2,165,400
E - EQUIPMENT & FURNISHINGS				\$1,142,850
E10 - Equipment	60,150	sf	\$6.00	\$360,900
E20 - Furnishings	60,150	sf	\$13.00	\$781,950
Subtotal - New Construction "the box"				\$20,438,300

Special Construction; Demolition. + Abatement	Quantity	Unit	Unit Cost	Total
F - SPECIAL CONSTRUCTION & DEMOLITION				\$1,284,360
F10 - Special construction		none		\$0
F20 - Building Demolition	7,000	sf	\$5	\$35,000
F20 - Asbestos Abatement	62,468	sf	\$20	\$1,249,360
Subtotal - Special Constr; Demo. + Abatement				\$1,284,360

Florence Roche Feasibility Study - PSR Cost Estimate

April 2020

Option 2 - Addition/Renovation, 645 students

OPTION 2 - 645

Unformat II Level 2

			GSF	116,140
Renovation:	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				\$196,800
A10 - Foundations	8,200	sf	\$4.00	\$32,800
A20 - Basement Construction	8,200	sf	\$20.00	\$164,000
B - SHELL				\$3,399,570
B10 - Superstructure	55,990	sf	\$8.00	\$447,920
B10 - Superstructure related to MEP's	55,990	sf	\$10.00	\$559,900
B20 - Exterior enclosure	15,960	sfsa	\$75.00	\$1,197,000
B30 - Roofing	47,790	sf	\$25.00	\$1,194,750
C - INTERIORS				\$4,899,125
C10 - Interior construction	55,990	sf	\$40.00	\$2,239,600
C10 - Interior gut	55,990	sf	\$20.00	\$1,119,800
C20 - Stairwells	55,990	sf	\$1.50	\$83,985
C30 - Interior Finishes	55,990	sf	\$26.00	\$1,455,740
D - SERVICES				\$6,774,790
D10 - Conveying systems	0	stops	\$95,000.00	\$0
D20 - Plumbing	55,990	sf	\$20.00	\$1,119,800
D30 - HVAC	55,990	sf	\$57.00	\$3,191,430
D40 - Fire Protection	55,990	sf	\$10.00	\$559,900
D50 - Electrical	55,990	sf	\$34.00	\$1,903,660
E - EQUIPMENT & FURNISHINGS				\$1,063,810
E10 - Equipment	55,990	sf	\$6.00	\$335,940
E20 - Furnishings	55,990	sf	\$13.00	\$727,870
Construction Phasing/Logistics Premium	55,990	sf	\$20.00	\$1,119,800
Subtotal - Renovation				\$17,453,895
Sitework & Utilities				
G - SITEWORK & UTILITIES				\$4,137,500
G10 - Site Preparation	325,000	sf	\$3	\$812,500
G20 - Site Improvements	325,000	sf	\$7	\$2,275,000
G30 - Site Civil/Mechanical Utilities	1	plug	\$750,000	\$750,000
G40 - Site Electrical Utilities	1	plug	\$300,000	\$300,000
Subtotal - Sitework				\$4,137,500

Project Agreement	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
Agreement	\$185,000	\$0	\$185,000	
Study	\$425,000	\$0	\$425,000	
Study	\$104,000	\$0	\$104,000	
at & Site	\$36,000	\$0	\$36,000	
Study Agreement Subtotal	\$760,000	\$0	\$760,000	\$402,603
	\$50,000	\$50,000	\$0	\$0
ject Manager	\$3,112,456	\$1,233,357	\$1,879,099	
Contract Documents	\$0	\$0	\$0	
Contract Administration	\$0	\$0	\$0	
es	\$0	\$0	\$0	
es & Other Services	\$0	\$0	\$0	
es	\$0	\$0	\$0	
ance	\$0	\$0	\$0	
strative Costs	\$0	\$0	\$0	
ation Subtotal	\$3,162,456	\$1,233,357	\$1,879,099	\$1,008,709
and Engineering				
es	\$6,800,913	\$1,328,485	\$5,472,428	
Contract Documents	\$0	\$0	\$0	
Contract Administration	\$0	\$0	\$0	
Services	\$0	\$0	\$0	
es Subtotal	\$6,800,913	\$1,328,485	\$5,472,428	
Services	\$0	\$0	\$0	
Testing	\$0	\$0	\$0	
Minimum)	\$0	\$0	\$0	
ursable Costs	\$0	\$0	\$0	
aterials	\$0	\$0	\$0	
eo-Env.	\$0	\$0	\$0	
	\$0	\$0	\$0	
	\$0	\$0	\$0	
	\$0	\$0	\$0	
	\$0	\$0	\$0	
ral/Engineering Subtotal	\$6,800,913	\$1,328,485	\$5,472,428	\$2,837,624
reconstruction Services				
ition Services	\$275,000	\$0	\$275,000	\$147,621
ing Purchase	\$0	\$0	\$0	
es	\$0	\$0	\$0	
es	\$0	\$0	\$0	
ition Subtotal	\$0	\$0	\$0	\$0
Costs				
TURE	\$37,892,195			
ms	\$0	\$0	\$0	
t Construction	\$0	\$0	\$0	
cture	\$0	\$0	\$0	
losure	\$0	\$0	\$0	
r Walls	\$0	\$0	\$0	
r Windows	\$0	\$0	\$0	
r Doors	\$0	\$0	\$0	
	\$0	\$0	\$0	
onstruction	\$0	\$0	\$0	
s	\$0	\$0	\$0	
nishes	\$0	\$0	\$0	
g Systems	\$0	\$0	\$0	
tion	\$0	\$0	\$0	
tion	\$0	\$0	\$0	

ProRated 20% Exclusion
 \$0 -Administration
 \$0 -A/E Services
 \$0 -Miscellaneous Pr
 \$8,251,627 Sum of Three So
 Eligible Soft Costs Category
 \$2,100,099 -Administration
 \$6,001,428 -A/E Services
 Ineligible therefore not included in calculation -Site Acquisition
 \$150,000 -Miscellaneous Pr
 \$1,548,000 FFE
 Not included in this calculation Owners Conting
 \$9,799,527 Total Eligible Soft

Construction Costs associated with Soft Cost Cap Calculation
 Construction Costs Category
 \$275,000 -CM Preconstruct
 \$58,974,273 -Construction Cos
 Not included in this calculation -Construction Cor
 \$59,249,273 Total Constructio
 20% Soft Cost Allowar
 \$11,849,855 Reimbursable So
 -\$2,050,327 Eligible minus Re
 -If Eligible minus Reimbursable is negative OK
 -If Eligible minus Reimbursable is positive enter value into Soft Costs
 exceed 20% of Construction Cost below in the Ineligible column.

Construction Budget \$58,974,273
 Eligible Fees % of Total Construction 5.59% \$2,064,099
 OPM Services \$3,297,456 5.59% \$2,064,100
 Extra Services \$36,000 0.06%
 Designer Services \$7,225,913 12.25% \$5,897,428
 Extra Services \$104,000 0.18% \$5,897,427

Project Budget: All costs associated with the subject to 963 CMR 2.16(f)	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
CONSTRUCTION & DEMOLITION	\$0			
Construction	\$0			
Building Demolition	\$35,000			
Hazardous Material Abatement	\$1,249,360			
Cont'g. Floor Mat'l Abatement	\$0			
Hazardous Material Abatement	\$0			
SiteWORK	\$4,137,500			
Permits	\$0			
Mechanical Utilities	\$0			
Electrical Utilities	\$0			
Site Construction	\$0			
Excluded Site Cost	\$1,106,124			
Iron Trades Subtotal	\$43,314,055			
Notes (Design and Pricing)				
Sub-Contractor Bonds	\$0			
Insurance	\$0			
General Conditions	\$0			
Overhead & Profit	\$9,172,838			
Contingency	\$0			
Mark-Up	\$6,487,380			
Included Construction Cost	\$17,044,887			
Iron Budget	\$58,974,273	\$18,550,931	\$40,423,341	\$21,693,433
Work Included in the Base Project	\$0	\$0	\$0	\$0
Included in the Total Project Budget	\$0	\$0	\$0	\$0
Excluded from the Total Project Budget	\$0	\$0	\$0	\$0
to be Included in Total Project Budget	\$0	\$0	\$0	\$0
us Project Costs				
any Fees	\$150,000	\$0	\$0	\$0
er Modules	\$2,350,000	\$2,350,000	\$150,000	\$0
er Costs (Milling & Moving)	\$100,000	\$100,000	\$0	\$0
Project Subtotal	\$2,600,000	\$2,450,000	\$150,000	\$80,521
and Equipment	\$1,383,525	\$609,525	\$774,000	\$0
atures and Equipment	\$1,383,525	\$609,525	\$774,000	\$0
Total	\$2,767,050	\$1,219,050	\$1,548,000	\$630,973
that exceed 20% of Construction Cost				
budget	\$75,329,692	\$24,831,823	\$50,497,868	27,107,484.49

Board Authorization	Design Enrollment	Reimbursable Amount	Est'd Budget
Design Enrollment	645	645	\$774,000
Total Building Gross Floor Area (GSF)	116,140	645	\$774,000
Total Project Budget (excluding Contingencies)	\$75,329,692		
Scope Items Excluded or Otherwise Ineligible	\$24,831,823		
Third Party Funding (Ineligible)	\$50,497,868		
ited Basis of Maximum Total Facilities Grant ¹	53.68%		
Reimbursement Rate	\$27,107,484		
Max. Total Facilities Grant (before recovery) ²	\$0		
Cost Recovery ²	\$27,107,484		
Estimated Maximum Total Facilities Grant ¹	\$27,107,484		

Construction Contingency ³	Ineligible Construction Contingency ³	potentially Eligible" Construction Contingency ³	Owner's Contingency ³
\$4,216,660	\$3,037,175	\$1,179,485	\$817,771

Site Cost Reimbursement = 8.0%

Direct Site Cost Excluded \$0 Eligible Site Costs \$4,137,500

Direct Building Cost \$37,892,195

Scope Excluded Site Cost \$3,031,376 Reimbursable Site \$1,106,124 Eligible minus Reimbursement is positive enter value into Scope Exclud

Construction Cost Reimbursement

\$35,000 Eligible Demo

\$1,249,360 Eligible Abatement

\$1,284,360 Total Eligible Demo & Abatement

\$0 D&P 0.00% % of Trades \$508 Tr

\$0 Bonds 0.00% % of Trades \$ 348.06 E

\$0 Insurance 0.00% % of Trades

\$0 Gen Cond 0.00% % of Trades

\$0 O&P 0.00% % of Trades

\$271,995 GMP Ins 21.18% % of Trades

\$0 GMP Fee 0.00% % of Trades

\$0 Escalation 14.98% % of Trades

\$1,748,721 Marked Up Demo & Abatement

\$40,423,341 Eligible Construction Cost

116,140 Proposed GSF; Manually enter eligible area if less than total area

\$ 333 Reimbursable Construction Cost for New Construction \$/sf (subject to Reimbursable Construction Cost

\$ 38,674,620 Reimbursable Construction Cost

\$1,748,721 Marked Demo & Abatement

40,423,341 Reimbursable Construction Cost

\$0 Eligible Minus Reimbursable

If Eligible minus Reimbursable is negative OK. No ineligible entry needed

If Eligible minus Reimbursable is positive enter value into Overall Excluded Construction Cost

FFE Reimbursement

Funding Limits Enrollment Reimbursable Amount Est'd Budget In

\$1,200 /student 645 \$774,000 \$1,383,525

\$1,200 /student 645 \$774,000 \$1,383,525

*If Ineligible is \$0 or negative OK

** If Ineligible Amount is positive enter value for each into Scope Excluded Cost.

1.00 (0-2) Maintenance

0.00 (0-1) CM @ Risk

0.00 (0-6) Newly Formed Regional School District

2.41 (0-5) Major Reconstruction or Renof/Reuse type in rounded to 2 decime

2.41 55,990 gsf Renovated or Existing to Remain

116,140 gsf Total at Conclusion of Project

0.00 (0-1) Overlay Zoning 40R and 40S

0.00 (0-0.5) Overlay Zoning 100 units or 50% of units 1, 2, or 3 family struct

2.00 (0-2) Energy Efficiency - "Green Schools"

0.00 (5) Model Schools

5.41 Total Incentive Points

NOTES

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1. Does not include any potentially eligible contingency funds and is subject to review and audit by the MSBA.

2. The proposed demolition of the _____ School is expected to result in the MSBA recovering a portion of state funds previously paid to the District for the _____ project at the existing facilities completed in _____. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed school project that may or may not agree with the estimated cost recovery generated by the District and its consultants using this template.

OPTION 2 - Add/Reno

Total Project Budget

Insert City/Town Name: _____ School Building Committee Reviewed on: _____ Insert Date of SBC Review Date: _____

	Insert School Name	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Budget	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
132	Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(5)				
133	"Potentially Eligible" Owner's Contingency ²		\$163,554		
134	Total Potentially Eligible Contingency/ Reimbursement Rate		\$1,343,040		
135	Potential Additional Contingency Grant Funds ³		53.68%		
136	Maximum Total Facilities Grant		\$720,950		
137	Total Project Budget		\$27,828,434		
	Estimated MSBA Share		\$27,828,434		
	Estimated District Share		\$52,535,689		\$0 TEST
			\$80,364,123		\$0 TEST

¹ Pursuant to Section 3.20 of the Project Funding Agreement and the applicable policies and guidelines of the Authority, any project costs associated with the reallocation or transfer of funds from either the Owner's contingency or the Construction contingency to other budget line items shall be subject to review by the Authority to determine whether any such costs are eligible for reimbursement by the Authority. All costs are subject to review and audit by the MSBA.

Florence Roche Feasibility Study - PSR Cost Estimate

April 2020

Option 3.2f - NEW, Behind Florence Roche, 645 students

Also referred to as the "H Scheme"

OPTION 3.2f - 645

Unformat II Level 2

GSF

111,656

General Statistics	New	Reno	Notes
Gross Square Footage:	111,656	0	
Building Footprint [SOG]:	61,740	0	
Supported Floor Deck [SOD]:	44,265	0	
Roof Area:	66,713	0	
Exterior Wall Surface Area:	44,157	0	
# Elevator Stops:	2	0	

New Construction - "the box"	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				\$3,395,700
A10 - Foundations	61,740	sf	\$55.00	\$3,395,700
A10 - Foundations, premium high wall work	0	lf	\$850.00	\$0
A10 - Foundations, additional excavation and export	0	cy	\$45.00	\$0
A20 - Basement Construction		none		\$0
B - SHELL				\$11,004,245
B10 - Superstructure, supported floors	44,265	sf	\$46.00	\$2,036,190
B10 - Superstructure, supported roofs	66,713	sf	\$35.00	\$2,334,955
B20 - Exterior enclosure	44,157	sfsa	\$120.00	\$5,298,840
B20 - Exterior enclosure, join to old work	0	sfsa	\$40.00	\$0
B30 - Roofing	66,713	sf	\$20.00	\$1,334,260
C - INTERIORS				\$8,262,544
C10 - Interior construction	111,656	sf	\$44.00	\$4,912,864
C20 - Stairwells	111,656	sf	\$2.00	\$223,312
C30 - Interior Finishes	111,656	sf	\$28.00	\$3,126,368
D - SERVICES				\$13,923,688
D10 - Conveying systems	2	stops	\$95,000.00	\$190,000
D20 - Plumbing	111,656	sf	\$23.00	\$2,568,088
D30 - HVAC	111,656	sf	\$57.00	\$6,364,392
D40 - Fire Protection	111,656	sf	\$7.00	\$781,592
D50 - Electrical	111,656	sf	\$36.00	\$4,019,616
E - EQUIPMENT & FURNISHINGS				\$2,121,464
E10 - Equipment	111,656	sf	\$6.00	\$669,936
E20 - Furnishings	111,656	sf	\$13.00	\$1,451,528
Subtotal - New Construction "the box"				\$38,707,641

Special Construction; Demolition. + Abatement	Quantity	Unit	Unit Cost	Total
F - SPECIAL CONSTRUCTION & DEMOLITION				\$1,805,104
F10 - Special construction		none		\$0
F20 - Building Demolition	69,468	sf	\$8	\$555,744
F20 - Asbestos Abatement	62,468	sf	\$20	\$1,249,360
Subtotal - Special Constr; Demo. + Abatement				\$1,805,104

Florence Roche Feasibility Study - PSR Cost Estimate

April 2020

Option 3.2f - NEW, Behind Florence Roche, 645 students

Also referred to as the "H Scheme"

OPTION 3.2f - 645

Unformat II Level 2

GSF 111,656

Renovation:	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				\$0
A10 - Foundations	0	sf	\$4.00	\$0
A20 - Basement Construction	0	sf	\$20.00	\$0
B - SHELL				\$0
B10 - Superstructure	0	sf	\$8.00	\$0
B10 - Superstructure related to MEP's	0	sf	\$10.00	\$0
B20 - Exterior enclosure	0	sfsa	\$75.00	\$0
B30 - Roofing	0	sf	\$25.00	\$0
C - INTERIORS				\$0
C10 - Interior construction	0	sf	\$40.00	\$0
C10 - Interior gut	0	sf	\$20.00	\$0
C20 - Stairwells	0	sf	\$1.50	\$0
C30 - Interior Finishes	0	sf	\$26.00	\$0
D - SERVICES				\$0
D10 - Conveying systems	0	stops	\$95,000.00	\$0
D20 - Plumbing	0	sf	\$20.00	\$0
D30 - HVAC	0	sf	\$57.00	\$0
D40 - Fire Protection	0	sf	\$10.00	\$0
D50 - Electrical	0	sf	\$34.00	\$0
E - EQUIPMENT & FURNISHINGS				\$0
E10 - Equipment	0	sf	\$6.00	\$0
E20 - Furnishings	0	sf	\$13.00	\$0
Construction Phasing/Logistics Premium	0	sf	\$10.00	\$0
Subtotal - Renovation				\$0

Sitework & Utilities

G - SITEWORK & UTILITIES				\$5,150,000
G10 - Site Preparation	400,000	sf	\$3	\$1,000,000
G20 - Site Improvements	400,000	sf	\$7	\$2,800,000
G30 - Site Civil/Mechanical Utilities	1	plug	\$1,000,000	\$1,000,000
G40 - Site Electrical Utilities	1	plug	\$350,000	\$350,000
Subtotal - Sitework				\$5,150,000

Total Project Budget

OPTION 3.2f - 645

Insert City/Town School Building Committee Reviewed on: Insert Date of SBC Review Date

Insert School Name	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant	Estimated Maximum Total Facilities Grant	Review Date
Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(5)					
1 Feasibility Study Agreement					
2 OPM Feasibility Study	\$205,000	\$0	\$205,000		
3 A&E Feasibility Study	\$456,000	\$0	\$456,000		
4 Environmental & Site	\$59,000	\$0	\$59,000		
5 Other	\$30,000	\$0	\$30,000		
Feasibility Study Agreement Subtotal	\$750,000	\$0	\$750,000	\$384,523	
7 Administration					
8 Legal Fees	\$50,000	\$50,000	\$0	\$0	
9 Owner's Project Manager					
10 Design Development	\$2,955,295	\$999,653	\$1,955,642		
11 Construction Contract Documents	\$0	\$0	\$0		
12 Bidding	\$0	\$0	\$0		
13 Construction Contract Administration	\$0	\$0	\$0		
14 Closeout	\$0	\$0	\$0		
15 Extra Services	\$0	\$0	\$0		
16 Reimbursable & Other Services	\$0	\$0	\$0		
17 Cost Estimates	\$0	\$0	\$0		
18 Advertising	\$0	\$0	\$0		
19 Other Insurance	\$0	\$0	\$0		
20 Other Administrative Costs	\$0	\$0	\$0		
21 Administration Subtotal	\$3,005,295	\$1,049,653	\$1,955,642	\$1,002,658	
Architecture and Engineering					
23 Basic Services					
24 Design Development	\$5,911,263	\$194,000	\$5,717,263		
25 Construction Contract Documents	\$0	\$0	\$0		
26 Bidding	\$0	\$0	\$0		
27 Construction Contract Administration	\$0	\$0	\$0		
28 Closeout	\$0	\$0	\$0		
29 Other Basic Services	\$0	\$0	\$0		
Basic Services Subtotal	\$5,911,263	\$194,000	\$5,717,263		
30 Reimbursable Services					
31 Construction Testing	\$0	\$0	\$0		
32 Printing (over minimum)	\$0	\$0	\$0		
33 Other Reimbursable Costs	\$0	\$0	\$0		
34 Hazardous Materials	\$0	\$0	\$0		
35 Geotech & Geo-Env.	\$0	\$0	\$0		
36 Site Survey	\$0	\$0	\$0		
37 Wetlands	\$0	\$0	\$0		
38 Traffic Studies	\$0	\$0	\$0		
Architectural/Engineering Subtotal	\$5,911,263	\$194,000	\$5,717,263	\$2,931,241	
GM & Bldg. Construction Services					
41 Pre-Construction Services					
42 Site Acquisition	\$225,000	\$0	\$225,000	\$115,358	
43 Land / Building Purchase	\$0	\$0	\$0	\$0	
44 Appraisal Fees	\$0	\$0	\$0	\$0	
45 Recording Fees	\$0	\$0	\$0	\$0	
Site Acquisition Subtotal	\$225,000	\$0	\$225,000	\$115,358	
46 Construction Costs					
47 SUBSTRUCTURE	\$38,707,641	\$0	\$38,707,641		
48 Foundations	\$0	\$0	\$0		
49 Basement Construction	\$0	\$0	\$0		
50 SHELL	\$0	\$0	\$0		
51 SuperStructure	\$0	\$0	\$0		
52 Exterior Closure	\$0	\$0	\$0		
53 Exterior Walls	\$0	\$0	\$0		
54 Exterior Windows	\$0	\$0	\$0		
55 Exterior Doors	\$0	\$0	\$0		
56 Roofing	\$0	\$0	\$0		
57 INTERIORS	\$0	\$0	\$0		
58 Interior Construction	\$0	\$0	\$0		
59 Staircases	\$0	\$0	\$0		
60 Interior Finishes	\$0	\$0	\$0		
61 SERVICES	\$0	\$0	\$0		
62 Conveying Systems	\$0	\$0	\$0		
63 Plumbing	\$0	\$0	\$0		
64 HVAC	\$0	\$0	\$0		
65 Fire Protection	\$0	\$0	\$0		
66 Electrical	\$0	\$0	\$0		
67 EQUIPMENT & FURNISHINGS	\$0	\$0	\$0		
68 Equipment	\$0	\$0	\$0		

ProRated 20% Exclusion
 \$0 -Administration
 \$0 -AE Services
 \$0 -Miscellaneous Proj Costs
 \$8,622,905 Sum of Three Soft Costs
 Eligible Soft Costs Category
 \$2,190,642 -Administration
 \$6,232,263 -AE Services
 Ineligible therefore not included in calculation -Site Acquisition
 \$200,000 -Miscellaneous Proj Costs
 \$1,548,000 FFE
 \$10,170,905 Total Eligible Soft Costs

Construction Costs associated with Soft Cost Cap Calculation
 Estimated Budget \$225,000
 Construction Costs \$225,000 -OM Preconstruction services
 \$61,732,633 -Construction Cost
 \$61,957,633 -Construction Contingency
 Total Construction Cost \$61,957,633
 20% Soft Cost Allowance
 \$12,391,527 Reimbursable Soft Cost

Not included in the calculation
 \$225,000 -OM Preconstruction services
 \$61,732,633 -Construction Cost
 \$61,957,633 -Construction Contingency
 Total Construction Cost \$61,957,633
 20% Soft Cost Allowance
 \$12,391,527 Reimbursable Soft Cost

Not included in the calculation
 \$225,000 -OM Preconstruction services
 \$61,732,633 -Construction Cost
 \$61,957,633 -Construction Contingency
 Total Construction Cost \$61,957,633
 20% Soft Cost Allowance
 \$12,391,527 Reimbursable Soft Cost

Construction Budget \$61,732,633
 Eligible Fees % of Total Construction 3.50% Value > 3.5%
 \$3,160,295 \$2,160,642 5.12% \$2,160,642
 \$30,000 0.05%
 Designer Value @ 10.31% \$6,173,263
 10.00% Value > 10% \$59,000

OPM Services
 Basic Services \$3,160,295
 Extra Services \$30,000
 Designer Services
 Basic Services \$6,387,263
 Extra Services \$59,000

if Eligible minus Reimbursable is negative OK.
 if Eligible minus Reimbursable is positive enter value into Soft Costs that exceed 20% of Construction Cost below in the ineligible column.

OPTION 3.2f - 645

Total Project Budget

School Building Committee Reviewed on: _____ Insert Date of SBC Review Date

Insert City/Town _____
 Insert School Name _____

Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(5)	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant	Estimated Maximum Total Facilities Grant	Review Date
72 Furnishings	\$0	\$0	\$0	\$0	
73 SPECIAL CONSTRUCTION & DEMOLITION					
74 Special Construction	\$0	\$0	\$0	\$0	
75 Existing Building Demolition	\$555,744	\$0	\$0	\$0	
76 In-Bldg. Hazardous Material Abatement	\$1,249,360	\$0	\$0	\$0	
77 Asbestos Cont'g. Floor Mat'l Abatement	\$0	\$0	\$0	\$0	
78 Other Hazardous Material Abatement	\$0	\$0	\$0	\$0	
79 BUILDING SITEWORK					
80 Site Preparation	\$5,150,000	\$0	\$0	\$0	
81 Site Improvements	\$0	\$0	\$0	\$0	
82 Site Civil / Mechanical Utilities	\$0	\$0	\$0	\$0	
83 Site Electrical Utilities	\$0	\$0	\$0	\$0	
84 Other Site Construction	\$0	\$0	\$0	\$0	
85 Scope Excluded Site Cost	\$0	\$0	\$0	\$0	
86 Construction Trades Subtotal	\$45,662,745	\$2,053,389	\$2,053,389	\$43,609,356	
87 Contingencies (Design and Pricing)	\$0	\$0	\$0	\$0	
88 D/B/B Sub-Contractor Bonds	\$0	\$0	\$0	\$0	
89 D/B/B Insurance	\$0	\$0	\$0	\$0	
90 D/B/B General Conditions	\$0	\$0	\$0	\$0	
91 D/B/B Overhead & Profit	\$0	\$0	\$0	\$0	
92 GMP Insurance	\$9,279,079	\$417,267	\$417,267	\$8,861,812	
93 GMP Contingency	\$0	\$0	\$0	\$0	
94 Escalation to Mid-Point of Construction	\$6,790,809	\$306,973	\$306,973	\$6,483,836	
95 Overall Excluded Construction Cost	\$0	\$19,334,790	\$19,334,790	\$0	
96 Construction Trades Subtotal	\$61,732,633	\$22,110,919	\$22,110,919	\$39,621,715	
97 Alternates	\$0	\$0	\$0	\$0	
98 Eligible Work Included in the Base Project	\$0	\$0	\$0	\$0	
99 Alternates Excluded in the Total Project Budget	\$0	\$0	\$0	\$0	
100 Alternates Excluded from the Total Project Budget	\$0	\$0	\$0	\$0	
101 Subtotal to be included in Total Project Budget	\$0	\$0	\$0	\$0	
102 Miscellaneous Project Costs					
103 Utility Company Fees	\$200,000	\$0	\$0	\$200,000	
104 Testing Services	\$150,000	\$0	\$0	\$150,000	
105 Swing Space / Modulars	\$100,000	\$0	\$0	\$100,000	
106 Other Project Costs (Mailings & Moving)	\$460,000	\$250,000	\$250,000	\$210,000	
107 Misc. Project Costs Subtotal	\$810,000	\$250,000	\$250,000	\$560,000	
108 Furniture, Fixtures and Equipment	\$1,064,250	\$230,250	\$230,250	\$834,000	
109 Technology	\$1,064,250	\$230,250	\$230,250	\$834,000	
110 FF&E Subtotal	\$2,128,500	\$460,500	\$460,500	\$1,668,000	
111 Soft Costs that exceed 20% of Construction Cost	\$0	\$0	\$0	\$0	
112					
113					
114					
115 Project Budget	\$74,202,692	\$24,184,972	\$24,184,972	\$50,017,720	25644064.93

Board Authorization	Design Enrollment	Total Building Gross Floor Area (GSF)	Total Project Budget (excluding Contingencies)	Scope Items Excluded or Otherwise Ineligible	Third Party Funding (Ineligible)	Estimated Basis of Maximum Total Facilities Grant	Reimbursement Rate	Est. Max. Total Facilities Grant (before recovery)	Cost Recovery	Estimated Maximum Total Facilities Grant
	645		111,656							
			\$74,202,692							
			\$24,184,972							
			\$50,017,720							
			\$1,277%							
			\$25,644,085							
			\$25,644,085							
			\$25,644,085							

NOTES
 This template was prepared by the MSBA as a tool to assist Districts and consultants in understanding MSBA policies and practices regarding potential impact on the MSBA's Facilities Grant. This template does not constitute an offer of reimbursement by the MSBA. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed project and its consultants using this template.
 1. Does not include any potentially eligible contingency funds and is subject to review and audit by the MSBA.
 2. The proposed demolition of the _____ School is expected to result in the MSBA recovering a portion of state funds previously paid to the District for the _____ project at the existing facilities completed in _____. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed project and its consultants using this template.
 3. Potentially Eligible Construction Contingency
 4. Ineligible Construction Contingency
 5. Owner's Contingency
 6. Ineligible Owner's Contingency

Site Cost Reimbursement = 8.0% Eligible Site Costs
 Direct Site Cost Excluded \$0 \$5,150,000 Eligible Site Costs
 Direct Building Cost \$38,707,641 \$3,096,611 Reimbursable Site Cost
 Scope Excluded Site Cost \$2,053,389 Eligible minus Reimbursable
 If Eligible minus Reimbursable is positive enter value into Scope Excluded Site Cost.
 If Eligible minus Reimbursable is negative OK. No ineligible needed

Construction Cost Reimbursement
 \$555,744 Eligible Demo
 \$1,249,360 Eligible Abatement
 \$1,805,104 Total Eligible Demo & Abatement
 D&P 0.00% % of Trades \$553 Total \$/sf
 Bonds 0.00% % of Trades \$ 354.86 Eligible \$/sf
 Insurance 0.00% % of Trades
 Gen Cond 0.00% % of Trades
 O&P 0.00% % of Trades
 GMP Ins 20.32% % of Trades
 GMP Fee 0.00% % of Trades
 GMP cont 0.00% % of Trades
 Escalation 14.87% % of Cumulative sum of Trades and Markups
 \$2,440,366 Marked Up Demo & Abatement
 \$39,621,815 Eligible Construction Cost
 \$111,656 Proposed GSF. Manually enter eligible area if less than total area
 \$ 333 Reimbursable Construction Cost
 \$ 37,181,448 Reimbursable Construction Cost
 \$2,440,366 Marked Demo & Abatement
 \$ 39,621,814 Reimbursable Construction Cost
 \$0 Eligible Minus Reimbursable
 If Eligible minus Reimbursable is negative OK. No ineligible entry needed
 If Eligible minus Reimbursable is positive enter value into Overall Excluded Construction Cost

FF&E Reimbursement
 Funding Limits
 \$1,200 /student Enrollment Reimbursable Amount Est'd Budget Ineligible
 \$1,200 /student 645 \$774,000 \$1,064,250 \$-290,250
 \$0 /student 645 \$774,000 \$1,064,250 \$-290,250
 If Ineligible Amount is \$0 or negative OK.
 *If Ineligible Amount is positive enter value for each into Scope Excluded Cost.

1.00 (0-2) Maintenance
 0.00 (0-1) CM @ Risk
 0.00 (0-6) Newly Formed Regional School District
 0.00 (0-5) Major Reconstruction or Reno/Reuse type in rounded to 2 decimal places
 0.00 0 gsf Renovated or Existing to Remain
 98,201 gsf Total at Conclusion of Project
 0.00 (0-1) Overlay Zoning 40R and 40S
 0.00 (0-0.5) Overlay Zoning 100 units or 50% of units 1,2, or 3 family structures
 2.00 (0-2) Energy Efficiency - "Green Schools"
 0.00 (5) Model Schools
3.00 Total Incentive Points

OPTION 3.2f - 645

Total Project Budget

Insert City/Town Insert School Name	School Building Committee Reviewed on:	Insert Date of SBC Review Date
Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(f)	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant
"Potentially Eligible" Owner's Contingency ³ Total Potentially Eligible Contingency ³ Reimbursement Rate Potential Additional Contingency Grant Funds ³ Maximum Total Facilities Grant	Estimated Budget	Estimated Maximum Total Facilities Grant ¹
	\$124,701	
	\$742,027	
	51.27%	
	\$380,437	
	\$26,024,522	
	\$77,912,826	
	Estimated MSBA Share	
	\$51,888,304	\$0 TEST
	\$77,912,826	\$0 TEST

132
133
134
135
136
137

Florence Roche Feasibility Study - PSR Cost Estimate
 April 2020
Option 4 - NEW, Behind Middle School, 645 students

OPTION 4 - 645

Unformat II Level 2

GSF 111,656

General Statistics	New	Reno	Notes
Gross Square Footage:	111,656	0	
Building Footprint [SOG]:	63,304	0	
Supported Floor Deck [SOD]:	42,620	0	
Roof Area:	65,079	0	
Exterior Wall Surface Area:	53,429	0	
# Elevator Stops:	2	0	

New Construction - "the box"	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				\$3,481,720
A10 - Foundations	63,304	sf	\$55.00	\$3,481,720
A10 - Foundations, premium high wall work	0	lf	\$850.00	\$0
A10 - Foundations, additional excavation and export	0	cy	\$45.00	\$0
A20 - Basement Construction		none		\$0
B - SHELL				\$11,951,345
B10 - Superstructure, supported floors	42,620	sf	\$46.00	\$1,960,520
B10 - Superstructure, supported roofs	65,079	sf	\$35.00	\$2,277,765
B20 - Exterior enclosure	53,429	sfsa	\$120.00	\$6,411,480
B20 - Exterior enclosure, join to old work	0	sfsa	\$40.00	\$0
B30 - Roofing	65,079	sf	\$20.00	\$1,301,580
C - INTERIORS				\$8,262,544
C10 - Interior construction	111,656	sf	\$44.00	\$4,912,864
C20 - Stairwells	111,656	sf	\$2.00	\$223,312
C30 - Interior Finishes	111,656	sf	\$28.00	\$3,126,368
D - SERVICES				\$13,923,688
D10 - Conveying systems	2	stops	\$95,000.00	\$190,000
D20 - Plumbing	111,656	sf	\$23.00	\$2,568,088
D30 - HVAC	111,656	sf	\$57.00	\$6,364,392
D40 - Fire Protection	111,656	sf	\$7.00	\$781,592
D50 - Electrical	111,656	sf	\$36.00	\$4,019,616
E - EQUIPMENT & FURNISHINGS				\$2,121,464
E10 - Equipment	111,656	sf	\$6.00	\$669,936
E20 - Furnishings	111,656	sf	\$13.00	\$1,451,528
Subtotal - New Construction "the box"				\$39,740,761

Special Construction; Demolition. + Abatement	Quantity	Unit	Unit Cost	Total
F - SPECIAL CONSTRUCTION & DEMOLITION				\$1,805,104
F10 - Special construction		none		\$0
F20 - Building Demolition	69,468	sf	\$8	\$555,744
F20 - Asbestos Abatement	62,468	sf	\$20	\$1,249,360
Subtotal - Special Constr; Demo. + Abatement				\$1,805,104

Florence Roche Feasibility Study - PSR Cost Estimate
 April 2020
Option 4 - NEW, Behind Middle School, 645 students

OPTION 4 - 645

Unformat II Level 2

			GSF	111,656
Renovation:	Quantity	Unit	Unit Cost	Total
A - SUBSTRUCTURE				\$0
A10 - Foundations	0	sf	\$4.00	\$0
A20 - Basement Construction	0	sf	\$20.00	\$0
B - SHELL				\$0
B10 - Superstructure	0	sf	\$8.00	\$0
B10 - Superstructure related to MEP's	0	sf	\$10.00	\$0
B20 - Exterior enclosure	0	sfsa	\$75.00	\$0
B30 - Roofing	0	sf	\$25.00	\$0
C - INTERIORS				\$0
C10 - Interior construction	0	sf	\$40.00	\$0
C10 - Interior gut	0	sf	\$20.00	\$0
C20 - Stairwells	0	sf	\$1.50	\$0
C30 - Interior Finishes	0	sf	\$26.00	\$0
D - SERVICES				\$0
D10 - Conveying systems	0	stops	\$95,000.00	\$0
D20 - Plumbing	0	sf	\$20.00	\$0
D30 - HVAC	0	sf	\$57.00	\$0
D40 - Fire Protection	0	sf	\$10.00	\$0
D50 - Electrical	0	sf	\$34.00	\$0
E - EQUIPMENT & FURNISHINGS				\$0
E10 - Equipment	0	sf	\$6.00	\$0
E20 - Furnishings	0	sf	\$13.00	\$0
Construction Phasing/Logistics Premium	0	sf	\$10.00	\$0
Subtotal - Renovation				\$0
Sitework & Utilities				
G - SITEWORK & UTILITIES				\$5,650,000
G10 - Site Preparation	400,000	sf	\$3	\$1,200,000
G20 - Site Improvements	400,000	sf	\$7	\$2,800,000
G30 - Site Civil/Mechanical Utilities	1	plug	\$1,200,000	\$1,200,000
G40 - Site Electrical Utilities	1	plug	\$450,000	\$450,000
Subtotal - Sitework				\$5,650,000

OPTION 4 - 645

Total Project Budget

Insert City/Town Name School Building Committee Reviewed on: Insert Date of SBC Review Date

Line Item	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
Total Project Budget: All costs associated with the project are subject to 963 OMR 2.16(f)				
1	\$205,000		\$205,000	
2	\$456,000		\$456,000	
3	\$59,000		\$59,000	
4	\$30,000		\$30,000	
5	\$750,000		\$750,000	\$384,625
6	\$50,000		\$50,000	\$0
7	\$3,069,291		\$3,069,291	\$1,091,106
8	\$0		\$0	\$0
9	\$0		\$0	\$0
10	\$0		\$0	\$0
11	\$0		\$0	\$0
12	\$0		\$0	\$0
13	\$0		\$0	\$0
14	\$0		\$0	\$0
15	\$0		\$0	\$0
16	\$0		\$0	\$0
17	\$0		\$0	\$0
18	\$0		\$0	\$0
19	\$0		\$0	\$0
20	\$0		\$0	\$0
21	\$0		\$0	\$0
22	\$3,119,291		\$3,119,291	\$1,091,106
23	\$0		\$0	\$0
24	\$0		\$0	\$0
25	\$6,116,530		\$6,116,530	\$194,000
26	\$0		\$0	\$0
27	\$0		\$0	\$0
28	\$0		\$0	\$0
29	\$0		\$0	\$0
30	\$0		\$0	\$0
31	\$6,116,530		\$6,116,530	\$194,000
32	\$0		\$0	\$0
33	\$0		\$0	\$0
34	\$0		\$0	\$0
35	\$0		\$0	\$0
36	\$0		\$0	\$0
37	\$0		\$0	\$0
38	\$0		\$0	\$0
39	\$0		\$0	\$0
40	\$0		\$0	\$0
41	\$6,116,530		\$6,116,530	\$3,037,506
42	\$225,000		\$225,000	\$115,358
43	\$0		\$0	\$0
44	\$0		\$0	\$0
45	\$0		\$0	\$0
46	\$0		\$0	\$0
47	\$0		\$0	\$0
48	\$0		\$0	\$0
49	\$39,740,761		\$39,740,761	\$0
50	\$0		\$0	\$0
51	\$0		\$0	\$0
52	\$0		\$0	\$0
53	\$0		\$0	\$0
54	\$0		\$0	\$0
55	\$0		\$0	\$0
56	\$0		\$0	\$0
57	\$0		\$0	\$0
58	\$0		\$0	\$0
59	\$0		\$0	\$0
60	\$0		\$0	\$0
61	\$0		\$0	\$0
62	\$0		\$0	\$0
63	\$0		\$0	\$0
64	\$0		\$0	\$0
65	\$0		\$0	\$0
66	\$0		\$0	\$0
67	\$0		\$0	\$0
68	\$0		\$0	\$0
69	\$0		\$0	\$0
70	\$0		\$0	\$0
71	\$0		\$0	\$0

ProRated 20% Exclusion
 \$0 -Administration
 \$0 -AE Services
 \$0 -Miscellaneous Proj Costs
 \$8,902,715 Sum of These Soft Costs
 Eligible Soft Costs
 \$2,263,185 -Administration
 \$6,439,530 -AE Services
 \$200,000 -Miscellaneous Proj Costs
 \$1,548,000 FFE
 \$10,450,715 Total Eligible Soft Costs

Not included in this calculation Owners Contingency
 \$12,806,060 Reimbursable Soft Cost

Construction Costs associated with Soft Cost Cap Calculation
 Construction Costs
 \$225,000 -CM Preconstruction services
 \$63,805,298 -Construction Cost
 \$64,030,298 Total Construction Cost
 20% Soft Cost Allowance
 \$12,806,060 Reimbursable Soft Cost

Not included in this calculation
 \$225,000 -CM Preconstruction services
 \$63,805,298 -Construction Cost
 \$64,030,298 Total Construction Cost
 20% Soft Cost Allowance
 \$12,806,060 Reimbursable Soft Cost

Not included in this calculation
 \$225,000 -CM Preconstruction services
 \$63,805,298 -Construction Cost
 \$64,030,298 Total Construction Cost
 20% Soft Cost Allowance
 \$12,806,060 Reimbursable Soft Cost

Eligible minus Reimbursable is negative OK.
 -If Eligible minus Reimbursable is positive enter value into Soft Costs that exceed 20% of Construction Cost below in the Ineligible column.

Construction Budget: \$63,805,298

OPM Services
 Basic Services \$3,274,291 5.13% Eligible Fees % of Total Construction 3.50% Value > 3.5%
 Extra Services \$30,000 0.05% \$2,233,185

Designer Services
 Basic Services \$6,574,530 10.30% Designer Value @ 10.00% Value > 10%
 Extra Services \$59,000 0.09% \$6,380,530

OPTION 4 - 645

Total Project Budget

School Building Committee Reviewed on:

Insert City/Town _____ Insert School Name _____ Insert Date of SBC _____ Review Date _____

No.	Description	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
72	Furnishings	\$0			
73	SPECIAL CONSTRUCTION & DEMOLITION				
74	Special Construction	\$0			
75	Existing Building Demolition	\$55,744			
76	In-Bldg. Hazardous Material Abatement	\$1,249,360			
77	Asbestos Cont'g Floor Mat' Abatement	\$0			
78	Other Hazardous Material Abatement	\$0			
79	BUILDING SITEWORK				
80	Site Preparation	\$5,650,000			
81	Site Improvements	\$0			
82	Site Civil / Mechanical Utilities	\$0			
83	Site Electrical Utilities	\$0			
84	Other Site Construction	\$0			
85	Scope Excluded Site Cost	\$0	\$2,470,739		
86	Construction Trades Subtotal	\$47,195,865	\$2,470,739		
87	Contingencies (Design and Pricing)	\$0			
88	D/R/B Sub-Contractor Bonds	\$0			
89	D/R/B Insurance	\$0			
90	D/R/B General Conditions	\$0			
91	D/R/B Overhead & Profit	\$0			
92	GMP Insurance	\$9,590,623	\$502,076		
93	GMP Fee	\$0			
94	GMP Contingency	\$0			
95	Escalation to Mid-Point of Construction	\$7,018,810	\$367,440		
96	Overall Excluded Construction Cost	\$0	\$20,843,228		
97	Construction Budget	\$63,805,298	\$24,183,483	\$39,621,814	\$20,314,104
98	Alternates				
99	Ineligible Work Included in the Base Project	\$0			
100	Alternates Included in the Total Project Budget	\$0			
101	Alternates Excluded from the Total Project Budget	\$0			
102	Subtotal to be Included in Total Project Budget	\$0	\$0	\$0	\$0
103	Miscellaneous Project Costs	\$0			
104	Utility Company Fees	\$0			
105	Testing Services	\$200,000			
106	Swing Space / Modulars	\$150,000	\$150,000		
107	Other Project Costs (Mailing & Moving)	\$100,000	\$100,000		
108	Misc. Project Costs Subtotal	\$450,000	\$250,000	\$200,000	\$102,540
109	Furnishings and Equipment	\$1,064,250	\$290,250	\$774,000	
110	Furniture, Fixtures and Equipment	\$1,064,250	\$290,250	\$774,000	
111	Technology	\$2,128,500	\$580,500	\$1,548,000	\$793,660
112	FF&E Subtotal	\$0			
113	Soft Costs that exceed 20% of Construction Cost.	\$0			
114		\$0			
115	Project Budget	\$76,596,619	\$26,299,089	\$50,297,529	\$25,787,543.22

No.	Description	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
116	Board Authorization				
117	Design Enrollment	645			
118	Total Building Gross Floor Area (GSF)	111,656			
119	Total Project Budget (excluding Contingencies)	\$76,596,619			
120	Scope Items Excluded or Otherwise Ineligible	\$26,299,089			
121	Third Party Funding (Ineligible)	\$0			
122	Estimated Basis of Maximum Total Facilities Grant ¹	\$50,297,529			
123	Reimbursement Rate	51.27%			
124	Est. Max. Total Facilities Grant (before recovery) ¹	\$25,787,543			
125	Cost Recovery ²	\$0			
126	Estimated Maximum Total Facilities Grant¹	\$25,787,543			

No.	Description	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
127	Construction Contingency ³	\$3,190,265			
128	Ineligible Construction Contingency ³	\$0			
129	"Potentially Eligible" Construction Contingency ³	\$638,063			
130	Owner's Contingency ³	\$639,566			
131	Ineligible Owner's Contingency ³	\$511,653			

No.	Description	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
132	Board Authorization				
133	Design Enrollment	645			
134	Total Building Gross Floor Area (GSF)	111,656			
135	Total Project Budget (excluding Contingencies)	\$76,596,619			
136	Scope Items Excluded or Otherwise Ineligible	\$26,299,089			
137	Third Party Funding (Ineligible)	\$0			
138	Estimated Basis of Maximum Total Facilities Grant ¹	\$50,297,529			
139	Reimbursement Rate	51.27%			
140	Est. Max. Total Facilities Grant (before recovery) ¹	\$25,787,543			
141	Cost Recovery ²	\$0			
142	Estimated Maximum Total Facilities Grant¹	\$25,787,543			

1. Does not include any potentially eligible contingency funds and is subject to review and audit by the MSBA.

2. The proposed demolition of the _____ School is expected to result in the MSBA receiving a portion of state funds previously paid to the District for the existing _____ facilities completed in _____. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed school project that may or may not agree with the estimated cost recovery generated by the District, and its consultants using this template.

3. Construction Contingency³ - School is expected to result in the MSBA receiving a portion of state funds previously paid to the District for the existing _____ facilities completed in _____. The MSBA will perform an independent analysis based on a review of information and estimates provided by the District for the proposed school project that may or may not agree with the estimated cost recovery generated by the District, and its consultants using this template.

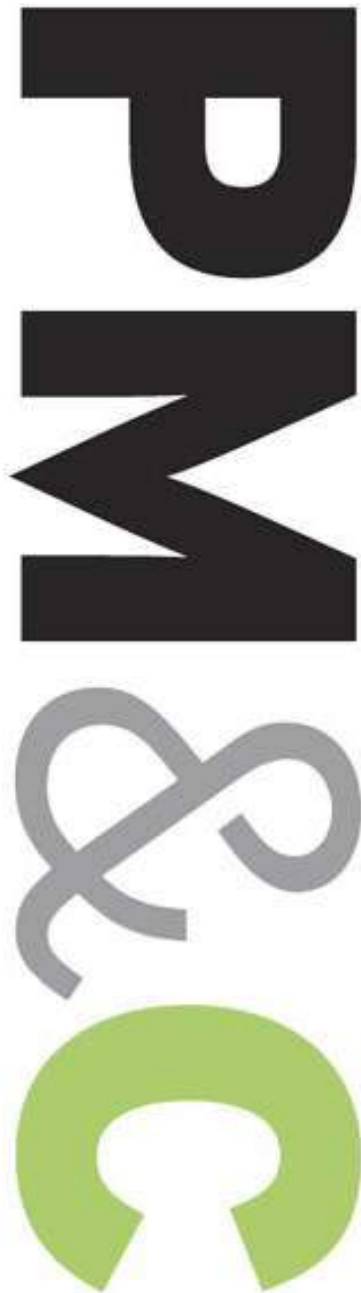
OPTION 4 - 645

Total Project Budget

Insert City/Town School Building Committee Reviewed on: Insert Date of SBC Review Date
 Insert School Name

	Estimated Budget	Scope Items Excluded from the Estimated Basis of Maximum Facilities Grant or Otherwise Ineligible	Estimated Basis of Maximum Total Facilities Grant ¹	Estimated Maximum Total Facilities Grant ¹
132	\$127,913			
133	\$765,966			
134	51.27%			
135	\$392,711			
136	\$26,180,254			
137	\$80,426,450			
	\$26,180,254			
	\$54,246,195	\$54,246,195		\$0 TEST
		\$80,426,450		\$0 TEST

¹ Pursuant to Section 3.20 of the Project Funding Agreement and the applicable policies and guidelines of the Authority, any project costs associated with the reallocation or transfer of funds from either the Owner's contingency or the Construction contingency to other budget line items shall be subject to review by the Authority to determine whether any such costs are eligible for reimbursement by the Authority. All costs are subject to review and audit by the MSBA.



PSR Estimate

**Florence Roche Elementary School
Construction Options**
Groton, MA

PM&C LLC
20 Downer Ave, Suite 5
Hingham, MA 02043
(T) 781-740-8007
(F) 781-740-1012

Prepared for:

Studio G

April 22, 2020

PSR Estimate

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
NEW CONSTRUCTION OPTION				
New Building	Apr-22	111,720	\$332.91	\$37,193,074
Demolish Existing Building		69,468	\$8.00	\$555,744
HazMat removals at existing building				\$1,249,360
Sitework - Trade Costs				\$4,368,522
<hr/>				
SUBTOTAL TRADE COSTS BUILDING and SITEWORK		111,720	\$388.17	\$43,366,700
Design and Estimating Contingency	12.0%			\$5,204,004
Escalation Allowance	7.0%			\$3,035,669
Phasing and Logistics				NR
<hr/>				
SUBTOTAL with CONTINGENCIES				\$51,606,373
General Conditions	24	Mths	\$130,000	\$3,120,000
General Requirements	3.0%			\$1,548,191
Insurances	2.5%			\$1,290,159
Bond	1.00%			\$516,064
Fee	2.5%			\$1,452,020
GMP Contingency	2.5%			\$1,452,020
<hr/>				
TOTAL ESTIMATED CONSTRUCTION COST		111,720	\$545.87	\$60,984,827

PSR Estimate

This PSR estimate was produced from outlines drawings dated April 10, 2020 as well as narratives and other documentation prepared by Studio G and their design team.

This estimate includes all direct construction costs, construction manager's overhead and profit and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding under Chapter 149A of the Massachusetts General Laws to pre-qualified construction managers, and pre-qualified sub-contractors, open specifications for materials and manufactures.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

- All professional fees and insurance
- Building Permit costs
- Land acquisition, feasibility, and financing costs
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items (e.g. draperies, furniture and equipment)
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks including new signals, (except as noted in this estimate)
- Construction or occupancy phasing or off hours' work, (except as noted in this estimate)

CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>
SUMMARY NEW OPTION			
A10 FOUNDATIONS		\$2,231,369	
A1010 Standard Foundations	\$1,503,237		\$13.46
A1020 Special Foundations	\$0		\$0.00
A1030 Lowest Floor	\$728,132		\$6.52
A20 BASEMENT CONSTRUCTION		\$0	
A2010 Basement Excavation	\$0		\$0.00
A2020 Basement Walls	\$0		\$0.00
B10 SUPERSTRUCTURE		\$4,477,506	
B1010 Upper Floor	\$1,987,135		\$17.79
B1020 Roof Construction	\$2,490,371		\$22.29
B20 EXTERIOR CLOSURE		\$6,822,184	
B2010 Exterior Walls	\$4,862,157		\$43.52
B2020 Windows	\$1,841,884		\$16.49
B2030 Exterior Doors	\$118,143		\$1.06
B30 ROOFING		\$1,605,661	
B3010 Roof Coverings	\$1,555,661		\$13.92
B3020 Roof Openings	\$50,000		\$0.45
C10 INTERIOR CONSTRUCTION		\$4,409,262	
C1010 Partitions	\$2,679,259		\$23.98
C1020 Interior Doors	\$622,142		\$5.57
C1030 Specialties/Millwork	\$1,107,861		\$9.92
C20 STAIRCASES		\$319,092	
C2010 Stair Construction	\$280,500		\$2.51
C2020 Stair Finishes	\$38,592		\$0.35
C30 INTERIOR FINISHES		\$3,047,343	
C3010 Wall Finishes	\$932,064		\$8.34
C3020 Floor Finishes	\$1,058,133		\$9.47
C3030 Ceiling Finishes	\$1,057,146		\$9.46
D10 CONVEYING SYSTEMS		\$135,000	
D1010 Elevator	\$135,000		\$1.21
D20 PLUMBING		\$1,843,380	
D20 Plumbing	\$1,843,380		\$16.50
D30 HVAC		\$6,212,724	
D30 HVAC	\$6,212,724		\$55.61
D40 FIRE PROTECTION		\$614,460	



Florence Roche Elementary School
Groton, MA

PSR Estimate

GFA

111,720

CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>
SUMMARY NEW OPTION			
D40 Fire Protection	\$614,460		\$5.50
D50 ELECTRICAL		\$3,686,760	
D5040 Electrical Systems	\$3,686,760		\$33.00
E10 EQUIPMENT		\$565,000	
E10 Equipment	\$565,000		\$5.06
E20 FURNISHINGS		\$1,223,333	
E2010 Fixed Furnishings	\$1,223,333		\$10.95
F20 HAZMAT REMOVALS		\$0	
F2010 Interior Demo	\$0		\$0.00
TOTAL DIRECT COST (Trade Costs)		\$37,193,074	\$332.91

PSR Estimate

GFA 111,720

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
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NEW BUILDING OPTION

GROSS FLOOR AREA CALCULATION

First Floor	65,553
Second Floor	46,167

TOTAL GROSS FLOOR AREA (GFA)	111,720 sf
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Strip footings: 2'-4" x 1'-0"

Excavation	1,993	cy	12.00	23,916
Store on site for reuse	1,993	cy	8.00	15,944
Backfill with selected material	1,839	cy	9.00	16,551
Formwork	15,844	sf	14.00	221,816
Re-bar	17,000	lbs	1.50	25,500
Concrete material; 3,000 psi	154	cy	135.00	20,790
Placing concrete	154	cy	120.00	18,480

Foundation wall: 18" thick

Formwork	13,600	sf	18.00	244,800
Re-bar	27,200	lbs	1.50	40,800
Concrete material; 3,000 psi	397	cy	135.00	53,595
Placing concrete	397	cy	120.00	47,640
Dampproofing foundation wall and footing	10,200	sf	1.85	NR
Insulation to foundation walls; 2" thick; both sides	13,600	sf	2.50	34,000
Form shelf	1,700	lf	6.00	10,200

Column footings - 9' x 9' x 2'-0" interior footing

Excavation	1,878	cy	14.00	26,292
Store on site for reuse	1,878	cy	8.00	15,024
Backfill with selected material	1,405	cy	12.00	16,860
Formwork	5,400	sf	16.00	86,400
Re-bar	56,250	lbs	1.50	84,375
Concrete material; 3,000 psi	473	cy	135.00	63,855
Placing concrete	473	cy	150.00	70,950

Column footings - 8'-0" x 8'-0" x 2'-0" exterior footing

Excavation	693	cy	14.00	9,702
Store on site for reuse	693	cy	8.00	5,544
Backfill with selected material	369	cy	12.00	4,428
Formwork	4,160	sf	16.00	66,560
Re-bar	22,750	lbs	1.50	34,125
Concrete material; 3,000 psi	324	cy	135.00	43,740
Placing concrete	324	cy	150.00	48,600

Miscellaneous

Rock removal allowance	1	ls		NR
Foundation drain	1,700	lf	22.00	37,400
Piers/pilasters	83	cy	750.00	62,250
Set anchor bolts grout plates	140	ea	165.00	23,100
Dewatering allowance	1	ls	30,000.00	30,000

SUBTOTAL 1,503,237

A1020 SPECIAL FOUNDATIONS

No Work in this section

SUBTOTAL

A1030 LOWEST FLOOR CONSTRUCTION

New Slab on grade, 5" thick

Rough and fine grade	65,553	sf	0.50	32,777
Base course; 8" thick; compacted	1,627	cy	40.00	65,080
Mesh Re-bar 15% lap	75,386	sf	1.15	86,694
Concrete -5" thick; 4,000 psi	1,045	cy	145.00	151,525
Place & finish including control joints	65,553	sf	2.50	163,883

PSR Estimate

GFA 111,720

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
NEW BUILDING OPTION								
62	Moisture Mitigation; admixture	1,045	cy	60.00	NR			
63	Vapor barrier under slab on grade	65,553	sf	1.00	65,553			
64	Rigid insulation beneath slab on grade; 2" thick	65,553	sf	2.50	NR			
65	Remove and replace unsuitable material; allowance for 8"	1,627	cy	60.00	97,620			
66	<u>Miscellaneous</u>							
67	Underslab drainage	65,553	sf	3.00	NR			
67	Equipment pads	1	ls	5,000.00	5,000			
68	Loading dock	1	ls	25,000.00	25,000			
69	New elevator pit	1	ls	35,000.00	35,000			
70	SUBTOTAL					728,132		
71								
72	TOTAL - FOUNDATIONS						\$2,231,369	
73								
74								
75	A20 BASEMENT CONSTRUCTION							
76								
77	A2010 BASEMENT EXCAVATION							
78	No Work in this section							
79	SUBTOTAL							
80								
81	A2020 BASEMENT WALLS							
82	No Work in this section							
83	SUBTOTAL							
84								
85	TOTAL - BASEMENT CONSTRUCTION							
86								
87								
88	B10 SUPERSTRUCTURE							
89				779 tns				
90				13.95 lbs/sf				
91	B1010 FLOOR CONSTRUCTION							
92	<u>Floor Structure - Steel:</u>							
92	Structure at Typical floors; 14 PSF	323	tns	3,900.00	1,259,700			
93	Premium for HSS steel	81	tns	400.00	32,400			
94	Shear studs	5,771	ea	6.00	34,626			
95	Platform/ stage framing	996	sf	15.00	14,940			
96	<u>Decking</u>							
97	Metal floor decking; 2", 18 gage	46,167	sf	4.00	184,668			
98	Mesh reinforcement in concrete topping	53,092	sf	1.10	58,401			
99	Concrete topping to metal decking, 4 1/2" thick; Light weight	673	cy	170.00	114,410			
100	Placing concrete topping	46,167	sf	3.00	138,501			
101	Moisture Mitigation; admixture	673	cy	60.00	NR			
102	<u>Miscellaneous</u>							
103	Rebar at slab edges	11,542	lbs	1.50	17,313			
104	Firestopping at floor penetrations	111,720	gsf	0.15	16,758			
105	Spray-applied fireproofing to beams and columns only	46,167	sf	2.50	115,418			
106	SUBTOTAL					1,987,135		
107								
108	B1020 ROOF CONSTRUCTION							
109	<u>Roof Structure - Steel:</u>							
110	Structure at roof	456	tns	3,900.00	1,778,400			
111	Premium for HSS steel	114	tns	400.00	45,600			
112	<u>Decking</u>							
113	Metal roof decking; 3"	65,553	sf	4.00	262,212			
114	Premium for acoustic deck at Gymnasium	6,000	sf	5.00	30,000			
115	Concrete slab for roof top equipment - allow	5,000	sf	10.00	50,000			
116	<u>Miscellaneous</u>							
117	Support framing to roof screen	15	tns	4,500.00	67,500			
118	Canopy framing - allowance	2,000	sf	30.00	60,000			
119	Spray-applied fireproofing to beams and deck	65,553	sf	3.00	196,659			
120	SUBTOTAL					2,490,371		
121								
122	TOTAL - SUPERSTRUCTURE						\$4,477,506	
123								
124								

PSR Estimate

GFA 111,720

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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NEW BUILDING OPTION

B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

Interior skin

6" metal stud back-up	41,456	sf	10.00	414,560
4" GF CMU to 14' in Gymnasium	1,190	sf	32.00	38,080
GWB to inside of exterior wall	41,456	sf	3.50	145,096
Gypsum densglass sheathing board	41,456	sf	2.90	120,222
Air/Vapor barrier to exterior walls, peel + stick	41,456	sf	7.50	310,920
Batt insulation, 6" in cavity	41,456	sf	4.00	165,824
Rigid insulation, 2" on face of sheathing	41,456	sf	2.75	114,004
Soffit framing including backup at projections & canopy	5,160	sf	23.15	119,454

Exterior skin

Face brick	20,728	sf	39.00	808,392	
Composite aluminum panel rainscreen system; Phenolic or similar; 50% of exterior wall	20,728	sf	80.00	1,658,240	
Composite aluminum panel to underside of canopy and building overhangs	5,160	sf	80.00	412,800	
Granite sills	1,727	lf	45.00	77,715	
Roof screen	3,000	sf	65.00	195,000	
Exterior signage - allowance	1	ls	10,000.00	10,000	
Miscellaneous sealants & flashings at closure	55,275	sf	1.00	55,275	
Allowance for miscellaneous closure steel & angles; Relieving angles & loose lintels	1,450	lf	35.00	50,750	
Scaffolding to exterior walls	55,275	sf	3.00	165,825	
SUBTOTAL					4,862,157

B2020 WINDOWS

Aluminum windows; double glazed	13,819	sf	100.00	967,300	
Curtainwall w/ spandrel panels; double glazed (30%)	4,146	sf	125.00	518,250	
Horizontal shades & vertical screen sunshades; East & West facing Classroom windows - allow	1,000	lf	200.00	200,000	
Louvers - allow	100	sf	55.00	5,500	
Air/Vapor barrier at window & louver openings	5,113	lf	6.50	33,235	
Backer rod & sealant at window & louver openings	5,113	lf	9.00	46,017	
Wood blocking at window openings	5,113	lf	14.00	71,582	
SUBTOTAL					1,841,884

B2030 EXTERIOR DOORS

Exterior Doors - Aluminum

6'-0" x 7'-0"	10	pr	9,000.00	90,000
3'-0" x 7'-0"	2	ea	5,000.00	10,000

FRP doors, frames and HW

Single leaf - allow	1	ea	1,600.00	1,600
Double leaf - allow	3	pr	2,500.00	7,500
Overhead door	1	al	5,000.00	5,000

Miscellaneous

Backer rod & sealant to exterior doors	311	lf	9.00	2,799
Wood blocking at door openings	311	lf	4.00	1,244

SUBTOTAL					118,143
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TOTAL - EXTERIOR CLOSURE						\$6,822,184
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B30 ROOFING

B3010 ROOF COVERINGS

PVC roof membrane mechanically fastened with 7" insulation and vapor barrier	65,553	sf	18.50	1,212,731
12" wide Factory fabricated pre-finished aluminum fascia trim/roof edge	1,700	lf	50.00	85,000

PSR Estimate

GFA 111,720

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
NEW BUILDING OPTION								
179	Membrane roof walkway pads	1	ls	10,000.00	10,000			
180	Exterior soffit; pre-finished aluminum at projections	300	sf	50.00	15,000			
181	Canopy - allowance for PVC roofing	2,000	sf	14.00	28,000			
182	Miscellaneous sealants & flashings at roof	65,553	sf	1.50	98,330			
183	Roof blocking	10,200	lf	8.00	81,600			
184	Allowance for miscellaneous roof accessories; hatches, ladders etc.	1	ls	25,000.00	25,000			
185	SUBTOTAL					1,555,661		
186								
187	B3020 ROOF OPENINGS							
188	Aluminum skylight - allow	1	ls	50,000.00	50,000			
189	SUBTOTAL					50,000		
190								
191	TOTAL - ROOFING							\$1,605,661
192								
193								
194	C10 INTERIOR CONSTRUCTION							
195								
196	C1010 PARTITIONS							
195	CMU at gymnasium	5,025	sf	32.00	160,800			
195	CMU at elevator shaft	1,200	sf	35.00	42,000			
196	CMU at kitchen, mech rooms, receiving	3,855	sf	26.00	100,230			
196	Interior GWB partitions at corridor	41,130	sf	19.50	802,035			
197	Interior GWB partitions at classroom demising walls	28,800	sf	20.50	590,400			
197	Plumbing partition	4,260	sf	21.50	91,590			
196	Typical partition	13,365	sf	15.50	207,158			
196	Additional partitions in admin area not shown	3,771	sf	20.00	75,420			
196	Premium for 2HR rating	5,685	sf	4.00	22,740			
197	Nana walls; allowance	500	sf	200.00	100,000			
198	Glazed walls/borrowed lights; 5% of walls	5,380	sf	80.00	430,400			
199	Sealants & caulking at partitions	112,971	gsf	0.50	56,486			
200	SUBTOTAL					2,679,259		
201								
202	C1020 INTERIOR DOORS							
201	Single doors	120	ea	2,100.00	252,000			
201	Double doors	11	pr	4,200.00	46,200			
202	Double doors; glazed	10	pr	8,000.00	80,000			
203	<u>Vestibule Doors - Aluminum</u>							
204	6'-0" x 7'-0"	2	pr	9,000.00	18,000			
205	Allowance for sidelights and premium doors	112,971	gsf	2.00	225,942			
206	SUBTOTAL					622,142		
207								
208	C1030 SPECIALTIES / MILLWORK							
209	Toilet compartments	21	ea	2,000.00	42,000			
210	Toilet accessories; single	25	rms	860.00	21,500			
211	Toilet accessories; gang	7	rms	3,000.00	21,000			
212	Janitor closets	2	ea	500.00	1,000			
213	Tack boards/Marker Boards	112,971	gsf	1.00	112,971			
214	Stage ramp	156	sf	35.00	5,460			
215	IWB						FF&E	
215	Guardrail at seating stair; glass	57	lf	500.00	28,500			
216	Fire extinguisher cabinets	32	ea	350.00	11,200			
217	Allowance for millwork	112,971	gsf	2.00	225,942			
218	Metal corridor lockers; single tier	112,971	gsf	1.50	169,457			
219	Signage/ graphics	112,971	gsf	0.90	101,674			
220	Misc. blocking	112,971	gsf	0.50	56,486			
221	Misc. metals	112,971	gsf	1.50	169,457			
222	Misc. sealants	112,971	gsf	1.25	141,214			
223	SUBTOTAL					1,107,861		
224								
225	TOTAL - INTERIOR CONSTRUCTION							\$4,409,262
226								

PSR Estimate

GFA 111,720

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
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NEW BUILDING OPTION

C20 STAIRCASES

C2010 STAIR CONSTRUCTION

Egress stair	3	flt	30,000.00	90,000		
Lobby area seating stair; complete	1	ls	180,000.00	180,000		
Concrete fill to stairs	3	flt	3,500.00	10,500		
SUBTOTAL						280,500

C2020 STAIR FINISHES

Precast treads and risers	1	ls	10,000.00	10,000		
Rubber tile at egress stairs - landings	180	sf	14.00	2,520		
Rubber tile at egress stairs - treads & risers	776	lft	22.00	17,072		
High performance coating to stairs including all railings etc.	3	flt	3,000.00	9,000		
SUBTOTAL						38,592

TOTAL - STAIRCASES						\$319,092
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C30 INTERIOR FINISHES

C3010 WALL FINISHES

Paint to partitions	178,560	sf	1.00	178,560		
4'-6" high Porcelain tile wainscot in corridors	12,339	sf	24.00	296,136		
Ceramic wall tile in bathrooms, full height	11,384	sf	22.00	250,448		
Acoustic panels in Gymnasium - 14' to deck	5,120	sf	16.00	81,920		
GRG interior column covers - allowance	1	ls	25,000.00	25,000		
Proscenium opening; maple veneer surround w/ porcelain tile accent	1	ls	100,000.00	100,000		
SUBTOTAL						932,064

C3020 FLOOR FINISHES

Linoleum in Cafeteria, Corridors, Classrooms etc.	77,778	sf	6.50	505,557		
Porcelain tile in lobby and connector	6,807	sf	24.00	163,368		
QT in kitchen	1,947	sf	26.00	50,622		
Carpet in Library and Admin spaces	7,228	sf	6.00	43,368		
Wood athletic flooring in Gym	6,000	sf	18.00	108,000		
Ceramic tile in bathrooms, mudset on WP membrane	4,378	sf	24.00	105,072		
Stage - wood dance flooring system	996	sf	22.00	21,912		
Stage risers	160	lf	50.00	8,000		
Sealed concrete at Mech/Elec/ Receiving/ Storage	1,000	sf	2.00	2,000		
Allowance for bases throughout	1	ls	50,234.20	50,234		
SUBTOTAL						1,058,133

C3030 CEILING FINISHES

2x2 ACT in Media center	3,579	sf	8.00	28,632		
2x2 ACT in Corridors;	6,807	sf	10.00	68,070		
2x2 ACT in typical Classrooms, Teacher Prep, Admin areas; Armstrong Ultima	94,334	sf	6.00	566,004		
Premium for decorative ceilings	5,000	sf	30.00	150,000		
Paint to exposed ceiling in Gymnasium & BOH	7,000	sf	3.00	21,000		
Allowance for gwb soffits throughout	111,720	gsf	2.00	223,440		
SUBTOTAL						1,057,146

TOTAL - INTERIOR FINISHES						\$3,047,343
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D10 CONVEYING SYSTEMS

PSR Estimate

GFA 111,720

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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NEW BUILDING OPTION

D1010 ELEVATOR

281	Elevator pit ladder & sills	1	ls	5,000.00	5,000		
282	Passenger elevator, 2 stop	1	ea	130,000.00	130,000		
283	SUBTOTAL					135,000	

TOTAL - CONVEYING SYSTEMS						\$135,000	
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D20 PLUMBING

D20 PLUMBING, GENERALLY

291	New plumbing; Complete	111,720	gsf	16.50	1,843,380		
292	SUBTOTAL					1,843,380	

TOTAL - PLUMBING						\$1,843,380	
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D30 HVAC

D30 HVAC, GENERALLY

HVAC Option 1 - C+ HW Heating plant & VAV

301	High Efficiency HW condensing boilers; 2500 MBH	3	ea	62,500.00	187,500		
302	VFD Pumps; 400 gpm; 25 hp	2	loc	18,000.00	36,000		
303	Expansion tank	2	ea	3,000.00	6,000		
304	Air separator	2	ea	2,000.00	4,000		
303	Boiler flues	1	ls	20,000.00	20,000		
302	Chiller; air cooled; high efficiency; 320 T	1	ls	225,000.00	225,000		
303	VFD Pumps; 515 gpm; 30 hp	2	loc	25,000.00	50,000		
304	Glycol system	1	ls	20,000.00	20,000		
304	Radiant ceiling panels	2,380	lf	100.00	238,000		
304	Minisplits; 2T	1	ls	12,000.00	12,000		
305	HVAC equipment; ie fine tube; CUH etc.	111,720	gsf	0.50	55,860		
306	AHU - 1; 15,000 cfm	1	ea	150,000.00	150,000		
307	AHU - 2; 24,000 cfm with ERW	1	ea	360,000.00	360,000		
308	AHU - 3 ; 24,000 cfm with ERW	1	ea	360,000.00	360,000		
309	AHU - 4 ; 24,000 cfm with ERW	1	ea	360,000.00	360,000		
310	AHU - 5; 8,000 cfm	1	ea	80,000.00	80,000		
311	AHU - 6 ; 9,000 cfm with ERW	1	ea	135,000.00	135,000		
311	Kitchen MUA; 4000 cfm	1	ea	12,000.00	12,000		
312	VAV box with heating coil	70	ea	950.00	66,500		
313	Fan coil unit	5	ea	2,000.00	10,000		
314	Kitchen EF and welded ductwork	1	ls	35,000.00	35,000		
315	Exhaust fans	111,720	sf	0.20	22,344		
316	Ductwork & accessories	110,000	lbs	15.00	1,650,000		
317	Ductwork insulation	66,000	sf	5.00	330,000		
318	RGD	111,720	sf	0.50	55,860		
319	Hot water piping	111,720	gsf	3.50	391,020		
320	CW piping	111,720	gsf	2.00	223,440		
321	Condensate drain piping	111,720	gsf	0.25	27,930		
322	Pipe insulation	111,720	gsf	2.00	223,440		
323	Automatic temperature control DDC; Co2 Monitoring	111,720	gsf	6.00	670,320		
324	Testing & balancing	111,720	gsf	0.75	83,790		
325	Miscellaneous - Fees, Permits, Coordination	111,720	gsf	1.00	111,720		
326	SUBTOTAL					6,212,724	

TOTAL - HVAC						\$6,212,724	
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D40 FIRE PROTECTION

D40 FIRE PROTECTION, GENERALLY

334	Fire protection	111,720	gsf	5.50	614,460		
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PSR Estimate

GFA 111,720

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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NEW BUILDING OPTION

SUBTOTAL 614,460

TOTAL - FIRE PROTECTION \$614,460

D50 ELECTRICAL

Electrical requirements including 2500A gear and distribution, sub-metering, equipment wiring and connections, 200kW Em Gen diesel roof mounted and associated gear and distribution, load bank, lighting, light controls, branch devices and associated wiring. Fire alarm system, BDA, Mass notification system, lightning protection system, sound systems at Gym, PV system infrastructure only and lightning protection system

111,720 gsf 25.00 2,793,000

Telecommunications including devices, cabling master clock, PA and Security system (assumes Network switches/PBX and AV equipment and cabling is by other FF&E)

111,720 gsf 8.00 893,760

SUBTOTAL 3,686,760

TOTAL - ELECTRICAL \$3,686,760

E10 EQUIPMENT

E10 EQUIPMENT, GENERALLY

Residential appliances

Refrigerator/ Freezer	1	ea	2,000.00	2,000
U/C Refrigerator	1	ea	1,000.00	1,000
Dishwasher	3	ea	1,200.00	3,600
Microwave	3	ea	200.00	600
U/C Ice maker	1	ea	1,000.00	1,000
Kitchen Equipment	1,947	sf	200.00	389,400
Cafeteria Platform Curtains & Rigging	1	ls	10,000.00	10,000
Electrically operated projection screen at Cafeteria stage; 12'-8" x 8'	1	ea	10,000.00	10,000

116600 ATHLETIC EQUIPMENT

Scoreboard and shot clock	1	ea	15,000.00	15,000
Volleyball sleeves	1	ls	3,000.00	3,000
Gym wall pads	1,650	sf	16.00	26,400
Basketball backstops; retractable	6	ea	10,500.00	63,000
Gymnasium dividing net	1,100	sf	20.00	22,000
Motorized assisted telescoping gymnasium bleacher seating w/ custom painted graphics on bleacher risers 100 seats	1	ls	18,000.00	18,000

SUBTOTAL 565,000

TOTAL - EQUIPMENT \$565,000

E20 FURNISHINGS

E2010 FIXED FURNISHINGS

Casework allowance (solid surface tops at all locations)	111,720	gsf	10.00	1,117,200
Recessed entry mats - allow	200	sf	32.00	6,400
Walk off mats - allow	200	sf	15.00	3,000
Window treatments	13,819	sf	7.00	96,733

SUBTOTAL 1,223,333

E2020 MOVABLE FURNISHINGS

All movable furnishings to be provided and installed by owner

SUBTOTAL NIC

TOTAL - FURNISHINGS \$1,223,333

PSR Estimate

GFA 111,720

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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NEW BUILDING OPTION

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F10 SPECIAL CONSTRUCTION

F10 SPECIAL CONSTRUCTION
No items in this section
SUBTOTAL

TOTAL - SPECIAL CONSTRUCTION

F20 SELECTIVE BUILDING DEMOLITION

F2010 BUILDING ELEMENTS DEMOLITION
No items in this section
SUBTOTAL

F2020 HAZARDOUS COMPONENTS ABATEMENT
Removal of Asbestos Containing Materials in existing building -
Included in Summary
SUBTOTAL

TOTAL - SELECTIVE BUILDING DEMOLITION

PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITework NEW OPTION

1							
2	G	SITework	350,000	sf		-	
3							
4	G10	SITE PREPARATION & DEMOLITION					
5		<u>Site Demolitions and Relocations</u>					
6		Clear and grub allowance	1	ls	50,000.00	50,000	
7		Site construction fence/barricades				See phasing below	
8		Remove sidewalk	1	ls	20,000.00	20,000	
9		Remove and dispose Bituminous Paving	47,000	sf	1.50	70,500	
10		Remove and dispose track	35,000	sf	1.50	52,500	
11		Remove and dispose athletic field	96,000	sf	0.50	48,000	
12		Protect and maintain utilities	1	ls	25,000.00	25,000	
13		Remove existing utilities + structures	1	ls	30,000.00	30,000	
14		Site construction fence/barricades	2,800	lf	18.00	50,400	
15		<u>Site Earthwork</u>					
16		Strip topsoil, store on site	5,556	cy	16.00	88,896	
17		Remove excess topsoil				NO COST	
18		Cut + fills	12,963	cy	15.00	194,445	
19		Fine grading	38,889	sy	2.00	77,778	
20		Construction entrance	1	ls	20,000.00	20,000	
21		Silt fence/erosion control	2,800	lf	11.00	30,800	
22		Erosion control maintenance	1	ls	25,000.00	25,000	
23		<u>Hazardous Waste Remediation</u>					
24							
25		SUBTOTAL					783,319
26							
27	G20	SITE IMPROVEMENTS					
28		<u>Roadways and Parking Lots</u>					
29		Bituminous concrete paving	50,000	sf		-	
30		gravel base 12"	1,852	cy	40.00	74,080	
31		bituminous concrete 4"	5,556	sy	28.00	155,568	
32		Vertical granite curbs	3,060	lf	42.00	128,520	
33		Other road markings	1	ls	10,000.00	10,000	
34		HC curb cuts	3	loc	350.00	1,050	
35		New traffic signs	1	ls	5,000.00	5,000	
36		<u>Roadways: pervious</u>					
37		Bituminous concrete paving	7,800	sf		-	
38		gravel base 36"	867	cy	40.00	34,680	
39		bituminous concrete 4"	867	sy	35.00	30,345	
40		Bituminous curbs	1,600	lf	38.00	60,800	
41		<u>Pedestrian paving</u>					
42		Concrete paving					
43		gravel base; 8" thick	434	cy	40.00	17,360	
44		concrete paving; 4" thick	17,500	sf	9.00	157,500	
45		concrete paving; plaza	12,000	sf	15.00	180,000	
46		Make space outdoor patio	1,400	sf	25.00	35,000	
47		<u>Play surface</u>					
48		gravel base; 8" thick	199	cy	40.00	7,960	
49		Poured in place rubber safety surface	8,000	sf	26.00	208,000	
50		Play equipment	1	loc	250,000.00	250,000	
51		5' Ornamental fence	401	lf	180.00	72,180	
52		<u>Site Improvements: allowances</u>					
53		Outdoor classroom/rain garden	15,000	sf	15.00	225,000	
54		Entrance sign	1	ea	15,000.00	15,000	



PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SITWORK NEW OPTION								
55	Allowance for other site improvements; site steps, walls, benches, fencing	1	ls	200,000.00	200,000			
56	<u>Landscaping & Plantings:</u>							
57	Spread existing amended topsoil, 6" @ seeded areas	5,556	cy	35.00	194,460			
58	Lawn - loam and seed	175,000	sf	0.35	61,250			
59	<u>Landscaping & Plantings:</u>							
60	Allowance	1	ls	200,000.00	200,000			
61	SUBTOTAL					2,323,753		
62								
63	G30 CIVIL MECHANICAL UTILITIES							
64	<u>Water supply</u>							
65	8" CLDI	700	lf	90.00	63,000			
66	6" DI	700	lf	70.00	49,000			
67	Connect to existing	2	loc	5,000.00	10,000			
68	Fire hydrants	2	loc	2,600.00	5,200			
69	FD connection	1	ea	2,000.00	2,000			
70	Valves	4	ea	750.00	3,000			
71	<u>Sanitary sewer</u>							
72	8" PVC	500	lf	60.00	30,000			
73	New SMH	2	loc	3,500.00	7,000			
74	Grease trap	1	ls	12,000.00	12,000			
75	Connect to existing SMH	1	ea	2,000.00	2,000			
76	<u>Storm Sewer</u>							
77	Allowance for complete system; piping, drainage structures, rain gardens and infiltration systems - pricing based on site hard surface area	75,500	sf	10.00	755,000			
78	SUBTOTAL					938,200		
79								
80	G40 ELECTRICAL UTILITIES							
81	<u>Power</u>							
82	Utility company charges (allow)	1	ls	20,000.00	20,000	By Owner		
83	Riser	1	ea	1,000.00	1,000			
84	Primary ductbank 2-5" PVC conduits, empty, concrete encased	700	lf	95.00	66,500			
85	Transformer by utility company					By Others		
86	Transformer pad	1	ea	2,500.00	2,500			
87	Secondary ductbank 4-4" PVC conduits, 1200A service, concrete encased	50	lf	270.00	13,500			
88	Generator ductbank EE 5-4" PVC conduits, 600A & 100A service & control wiring, concrete encased	50	lf	175.00	8,750			
89	<u>Communications</u>							
90	Riser	1	ls	1,000.00	1,000			
91	Telecom ductbank DD 4-4" PVC conduits, empty, concrete encased	700	lf	150.00	105,000			
92	<u>Site Lighting</u>							
93	Lighting including circuitry	50,000	sf	2.50	125,000			
94	SUBTOTAL					323,250		
95								
96	TOTAL - SITE DEVELOPMENT							\$4,368,522

PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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HVAC ALTERNATES

D30 HVAC, GENERALLY

HVAC Option 1 - C+ HW Heating plant & VAV

	High Efficiency HW condensing boilers; 2500 MBH	3	ea	62,500.00	187,500		
	VFD Pumps; 400 gpm; 25 hp	2	loc	18,000.00	36,000		
	Expansion tank	2	ea	3,000.00	6,000		
	Air separator	2	ea	2,000.00	4,000		
	Boiler flues	1	ls	20,000.00	20,000		
	Chiller; air cooled; high efficiency; 320 T	1	ls	225,000.00	225,000		
	VFD Pumps; 515 gpm; 30 hp	2	loc	25,000.00	50,000		
	Glycol system	1	ls	20,000.00	20,000		
	Radiant ceiling panels	2,380	lf	100.00	238,000		
	Minisplits; 2T	1	ls	12,000.00	12,000		
	HVAC equipment; ie fine tube; CUH etc.	111,720	gsf	0.50	55,860		
	AHU - 1; 15,000 cfm	1	ea	150,000.00	150,000		
	AHU - 2; 24,000 cfm with ERW	1	ea	360,000.00	360,000		
	AHU - 3 ; 24,000 cfm with ERW	1	ea	360,000.00	360,000		
	AHU - 4 ; 24,000 cfm with ERW	1	ea	360,000.00	360,000		
	AHU - 5; 8,000 cfm	1	ea	80,000.00	80,000		
	AHU - 6 ; 9,000 cfm with ERW	1	ea	135,000.00	135,000		
	Kitchen MUA; 4000 cfm	1	ea	12,000.00	12,000		
	VAV box with heating coil	70	ea	950.00	66,500		
	Fan coil unit	5	ea	2,000.00	10,000		
	Kitchen EF and welded ductwork	1	ls	35,000.00	35,000		
	Exhaust fans	111,720	sf	0.20	22,344		
	Ductwork & accessories	110,000	lbs	15.00	1,650,000		
	Ductwork insulation	66,000	sf	5.00	330,000		
	RGD	111,720	sf	0.50	55,860		
	Hot water piping	111,720	gsf	3.50	391,020		
	CW piping	111,720	gsf	2.00	223,440		
	Condensate drain piping	111,720	gsf	0.25	27,930		
	Pipe insulation	111,720	gsf	2.00	223,440		
	Automatic temperature control DDC; Co2 Monitoring	111,720	gsf	6.00	670,320		
	Testing & balancing	111,720	gsf	0.75	83,790		
	Miscellaneous - Fees, Permits, Coordination	111,720	gsf	1.00	111,720		
	SUBTOTAL					6,212,724	

TOTAL - HVAC	\$6,212,724
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COST PER GSF

\$55.61

PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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HVAC ALTERNATES

D30 HVAC, GENERALLY

HVAC Option 2 - C+ HW Heating plant Standard VAV AHU

	High Efficiency HW condensing boilers; 2500 MBH	3	ea	62,500.00	187,500		
	VFD Pumps; 400 gpm; 25 hp	2	loc	18,000.00	36,000		
	Expansion tank	2	ea	3,000.00	6,000		
	Air separator	2	ea	2,000.00	4,000		
	Boiler flues	1	ls	20,000.00	20,000		
	Chiller; air cooled; high efficiency; 320 T	1	ls	225,000.00	225,000		
	VFD Pumps; 515 gpm; 30 hp	2	loc	25,000.00	50,000		
	Glycol system	1	ls	20,000.00	20,000		
	Radiant ceiling panels	2,380	lf	100.00	238,000		
	Minisplits; 2T	1	ls	12,000.00	12,000		
	HVAC equipment; ie fine tube; CUH etc.	111,720	gsf	0.50	55,860		
	AHU - 1; 15,000 cfm	1	ea	150,000.00	150,000		
	AHU - 2; 24,000 cfm with ERW	1	ea	360,000.00	360,000		
	AHU - 3 ; 24,000 cfm with ERW	1	ea	360,000.00	360,000		
	AHU - 4 ; 24,000 cfm with ERW	1	ea	360,000.00	360,000		
	AHU - 5; 8,000 cfm	1	ea	80,000.00	80,000		
	AHU - 6 ; 8,000 cfm with ERW	1	ea	120,000.00	120,000		
	Kitchen MUA; 4000 cfm	1	ea	12,000.00	12,000		
	VAV box with heating coil	70	ea	950.00	66,500		
	Fan coil unit	5	ea	2,000.00	10,000		
	Kitchen EF and welded ductwork	1	ls	35,000.00	35,000		
	Exhaust fans	111,720	sf	0.20	22,344		
	Ductwork & accessories	110,000	lbs	15.00	1,650,000		
	Ductwork insulation	66,000	sf	5.00	330,000		
	RGD	111,720	sf	0.50	55,860		
	Hot water piping	111,720	gsf	3.50	391,020		
	CW piping	111,720	gsf	2.00	223,440		
	Condensate drain piping	111,720	gsf	0.25	27,930		
	Pipe insulation	111,720	gsf	2.00	223,440		
	Automatic temperature control DDC; Co2 Monitoring	111,720	gsf	6.00	670,320		
	Testing & balancing	111,720	gsf	0.75	83,790		
	Miscellaneous - Fees, Permits, Coordination	111,720	gsf	1.00	111,720		
	SUBTOTAL					6,197,724	

TOTAL - HVAC	\$6,197,724
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COST PER GSF

\$55.48

PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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HVAC ALTERNATES

D30 HVAC, GENERALLY

HVAC Option 3 - C+ HW Heating plant with active chilled beams							
	High Efficiency HW condensing boilers; 2500 MBH	3	ea	62,500.00	187,500		
	VFD Pumps; 400 gpm; 25 hp	2	loc	18,000.00	36,000		
	Expansion tank	2	ea	3,000.00	6,000		
	Air separator	2	ea	2,000.00	4,000		
	Boiler flues	1	ls	20,000.00	20,000		
	Chiller; air cooled; high efficiency; 320 T	1	ls	225,000.00	225,000		
	VFD Pumps; 515 gpm; 30 hp	2	loc	25,000.00	50,000		
	Glycol system	1	ls	20,000.00	20,000		
	Chilled beam system; 2-pipe active chilled beams	111,720	gsf	6.00	670,320		
	Minisplits; 2T	1	ls	12,000.00	12,000		
	HVAC equipment; ie fine tube; CUH etc.	111,720	gsf	2.00	223,440		
	AHU - 1; 8,000 cfm with ERW cafeteria	1	ea	120,000.00	120,000		
	AHU - 2; 8,000 cfm with ERW gymnasium	1	ea	120,000.00	120,000		
	DOAS - 8,000 cfm	1	ea	144,000.00	144,000		
	DOAS - 3,000 cfm	1	ea	54,000.00	54,000		
	Kitchen MUA; 4000 cfm	1	ea	12,000.00	12,000		
	Fan coil unit	5	ea	2,000.00	10,000		
	Kitchen EF and welded ductwork	1	ls	35,000.00	35,000		
	Exhaust fans	111,720	sf	0.20	22,344		
	Ductwork & accessories	110,000	lbs	15.00	1,650,000		
	Ductwork insulation	66,000	sf	5.00	330,000		
	RGD	111,720	sf	0.50	55,860		
	Hot water piping	111,720	gsf	5.50	614,460		
	CW piping including secondary loop	111,720	gsf	4.50	502,740		
	Condensate drain piping	111,720	gsf	0.50	55,860		
	Pipe insulation	111,720	gsf	3.50	391,020		
	Automatic temperature control DDC; Co2 Monitoring	111,720	gsf	6.50	726,180		
	Testing & balancing	111,720	gsf	1.00	111,720		
	Miscellaneous - Fees, Permits, Coordination	111,720	gsf	1.50	167,580		
	SUBTOTAL					6,577,024	

TOTAL - HVAC	\$6,577,024
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COST PER GSF \$58.87

PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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HVAC ALTERNATES

D30 HVAC, GENERALLY

HVAC Option 4 - C+ HW Heating plant with hybrid displacement ventilation and active chilled beams

High Efficiency HW condensing boilers; 2500 MBH	3	ea	62,500.00	187,500		
VFD Pumps; 400 gpm; 25 hp	2	loc	18,000.00	36,000		
Expansion tank	2	ea	3,000.00	6,000		
Air separator	2	ea	2,000.00	4,000		
Boiler flues	1	ls	20,000.00	20,000		
Chiller; air cooled; high efficiency; 320 T	1	ls	225,000.00	225,000		
VFD Pumps; 515 gpm; 30 hp	2	loc	25,000.00	50,000		
Glycol system	1	ls	20,000.00	20,000		
Chilled beam system; 4-pipe displacement ventilation chilled beams in classrooms; 2-pipe ACB admin spaces	111,720	gsf	6.00	670,320		
Minisplits; 2T	1	ls	12,000.00	12,000		
HVAC equipment; ie fine tube; CUH etc.	111,720	gsf	2.00	223,440		
AHU - 1; 8,000 cfm with ERW cafeteria	1	ea	120,000.00	120,000		
AHU - 2; 8,000 cfm with ERW gymnasium	1	ea	120,000.00	120,000		
DOAS - 8,000 cfm	1	ea	144,000.00	144,000		
DOAS - 3,000 cfm	1	ea	54,000.00	54,000		
Kitchen MUA; 4000 cfm	1	ea	12,000.00	12,000		
Fan coil unit	5	ea	2,000.00	10,000		
Kitchen EF and welded ductwork	1	ls	35,000.00	35,000		
Exhaust fans	111,720	sf	0.20	22,344		
Ductwork & accessories	110,000	lbs	15.00	1,650,000		
Ductwork insulation	66,000	sf	5.00	330,000		
RGD	111,720	sf	0.50	55,860		
Hot water piping	111,720	gsf	6.00	670,320		
CW piping including secondary loop	111,720	gsf	5.00	558,600		
Condensate drain piping	111,720	gsf	0.50	55,860		
Pipe insulation	111,720	gsf	4.00	446,880		
Automatic temperature control DDC; Co2 Monitoring	111,720	gsf	7.00	782,040		
Testing & balancing	111,720	gsf	1.00	111,720		
Miscellaneous - Fees, Permits, Coordination	111,720	gsf	1.50	167,580		
SUBTOTAL						6,800,464

TOTAL - HVAC	\$6,800,464
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COST PER GSF

\$60.87

PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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HVAC ALTERNATES

D30 HVAC, GENERALLY

HVAC Option 5 - VRF System

VRF Condensers	320	tn	2,000.00	640,000		
Branch controller, allow	6	ea	5,500.00	33,000		
Minisplits; 2T	1	ls	12,000.00	12,000		
HVAC equipment; ie fine tube; CUH etc.	111,720	gsf	1.00	111,720		
AHU - 1; 8,000 cfm	1	ea	80,000.00	80,000		
AHU - 2; 8,000 cfm with ERW	1	ea	120,000.00	120,000		
DOAS - 8,000 cfm	1	ea	144,000.00	144,000		
DOAS - 3,000 cfm	1	ea	54,000.00	54,000		
Kitchen MUA; 4000 cfm	1	ea	12,000.00	12,000		
VRF FCU	75	ea	3,200.00	240,000		
Kitchen EF and welded ductwork	1	ls	35,000.00	35,000		
Exhaust fans	111,720	sf	0.20	22,344		
Ductwork & accessories	90,000	lbs	15.00	1,350,000		
Ductwork insulation	54,000	sf	5.00	270,000		
RGD	111,720	sf	0.50	55,860		
Refrigerant piping	111,720	gsf	7.00	782,040		
Condensate drain piping	111,720	gsf	2.00	223,440		
Pipe insulation	111,720	gsf	3.75	418,950		
Automatic temperature control DDC; Co2 Monitoring	111,720	gsf	5.00	558,600		
Testing & balancing	111,720	gsf	0.60	67,032		
Miscellaneous - Fees, Permits, Coordination	111,720	gsf	1.50	167,580		
SUBTOTAL						5,397,566

TOTAL - HVAC						\$5,397,566
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COST PER GSF

\$48.31