



PSR Estimate

**West Elementary School
Construction Options**
Andover, MA

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Prepared for:

PMA

April 29, 2020



West Elementary School
Andover, MA

29-Apr-20

PSR Estimate

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
Sep-21				
ALTERNATIVE 1 - CODE REPAIR				
CODE RENOVATION OF EXISTING BUILDING		90,600	\$260.00	\$23,556,000
REMOVE HAZARDOUS MATERIALS				\$962,655
SITework				\$500,000
SUB-TOTAL		90,600	\$276.14	\$25,018,655
ESCALATION TO MIDPOINT	7.9%			\$1,976,474
DESIGN AND PRICING CONTINGENCY	15%			\$3,752,798
SUB-TOTAL	Sep-21	90,600	\$339.38	\$30,747,927
GENERAL CONDITIONS; 24 MONTHS				\$4,320,000
GENERAL REQUIREMENTS	4.0%			\$1,229,917
BONDS	1.0%			\$307,479
INSURANCE	1.15%			\$353,601
PERMIT				NIC
PHASING PREMIUM	5.0%			\$1,847,946
CM FEE	2.5%			\$970,172
GMP CONTINGENCY	2.0%			\$776,137
MODULAR CLASSROOMS (10 Classrooms)				Not Required
TOTAL OF ALL CONSTRUCTION	Sep-21	90,600	\$447.61	\$40,553,179



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29-Apr-20

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MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
Jun-22				
ALTERNATIVE 2 - ADD/ RENO				
ADDITIONS		146,117	\$364.10	\$53,200,608
RENOVATIONS		65,629	\$285.35	\$18,727,006
PARTIAL DEMOLITION OF EXISTING BUILDING		24,971	\$10.00	\$249,710
REMOVE HAZARDOUS MATERIALS				\$962,655
SITework				\$7,341,562
SUBTOTAL TRADE COSTS BUILDING and SITework		211,746	\$380.09	\$80,481,541
ESCALATION TO MIDPOINT	14.0%			\$11,267,416
DESIGN AND PRICING CONTINGENCY	12%			\$9,657,785
SUBTOTAL with CONTINGENCIES		211,746	\$478.91	\$101,406,742
GENERAL CONDITIONS (48 MONTHS)				\$8,640,000
GENERAL REQUIREMENTS	4.0%			\$4,056,270
BONDS	1.0%			\$1,014,067
INSURANCE	1.15%			\$1,166,178
PERMIT				NIC
PHASING PREMIUM	3.0%			\$3,488,498
CM FEE	5.0%			\$5,988,588
GMP CONTINGENCY	4.8%			\$5,749,044
MODULAR CLASSROOMS (20 Classrooms)				\$3,800,000
TOTAL ESTIMATED CONSTRUCTION COST		211,746	\$639.02	\$135,309,387



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29-Apr-20

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MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
ALTERNATIVE 3 - NEW CONSTRUCTION				
	Jun-22			
NEW SCHOOL		213,503	\$338.56	\$72,283,751
DEMOLITION OF EXISTING BUILDING		90,600	\$8.00	\$724,800
REMOVE HAZARDOUS MATERIALS				\$962,655
SITework				\$9,722,354
SUBTOTAL TRADE COSTS BUILDING and SITework		213,503	\$392.00	\$83,693,560
ESCALATION TO MIDPOINT	12.5%			\$10,461,695
DESIGN AND PRICING CONTINGENCY	12%			\$10,043,227
SUBTOTAL with CONTINGENCIES		213,503	\$488.04	\$104,198,482
GENERAL CONDITIONS (39 MONTHS Building 28 mths and site + demo 11 mths)				\$6,470,000
GENERAL REQUIREMENTS	4.0%			\$4,167,939
BONDS	1.0%			\$1,041,985
INSURANCE	1.15%			\$1,198,283
PERMIT				NIC
PHASING PREMIUM				NR
CM FEE	3.0%			\$3,512,301
GMP CONTINGENCY	3.0%			\$3,512,301
MODULAR CLASSROOMS (10 Classrooms)				\$1,900,000
TOTAL ESTIMATED CONSTRUCTION COST		213,503	\$590.16	\$126,001,291



West Elementary School
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29-Apr-20

PSR Estimate

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost
ALTERNATIVE 3B - NEW CONSTRUCTION				
	Jun-22			
NEW SCHOOL		213,503	\$338.56	\$72,283,751
DEMOLITION OF EXISTING BUILDING		90,600	\$8.00	\$724,800
REMOVE HAZARDOUS MATERIALS				\$962,655
SITework				\$9,396,852
SUBTOTAL TRADE COSTS BUILDING and SITework		213,503	\$390.48	\$83,368,058
ESCALATION TO MIDPOINT	12.5%			\$10,421,007
DESIGN AND PRICING CONTINGENCY	12%			\$10,004,167
SUBTOTAL with CONTINGENCIES		213,503	\$486.14	\$103,793,232
GENERAL CONDITIONS (39 MONTHS Building 28 mths and site + demo 11 mths)				\$6,470,000
GENERAL REQUIREMENTS	4.0%			\$4,151,729
BONDS	1.0%			\$1,037,932
INSURANCE	1.15%			\$1,193,622
PERMIT				NIC
PHASING PREMIUM				NR
CM FEE	3.0%			\$3,499,395
GMP CONTINGENCY	3.0%			\$3,499,395
MODULAR CLASSROOMS (20 Classrooms)				\$3,800,000
TOTAL ESTIMATED CONSTRUCTION COST		213,503	\$596.93	\$127,445,305



PSR Estimate

ALTERNATE ((ncluding all markups)		
1. Turf field ILO of grass	ADD	\$1,156,680

Costs above are based on the schedule outlined below:

Alternative 1 – code repair

Assume Start Sept 2021 – Numerous Phases, Invasive work done over 2 summer breaks, smaller construction items can be done during the school years – 24 Month Duration

Alternative 2 – Add/Reno

PHASE 1 - Enabling Summer of 2021 (get Ready for Modulares , Install Temporary Parking)

PHASE 2 - Install 20 Modulares March 2022 , Demo (2) Pods in June 2022

PHASE 3 – Two new 3 Story Additions and Existing Admin Area Renovation; July 2022 – December 2023

PHASE 4 – Renovation of Existing Auditorium /Gym Area; December 2023 – July 2024

PHASE 5- Renovation of Kindergarten Area of Existing Building; August 2024 – March 2025

PHASE 6 – Renovation of Last Section Main Entrance at Existing Building; April 2025 – February 2026

PHASE 7 – Sitework (Parking Lots, Fields, Landscaping; March 2026 – August 2026

Alternative 3 – New Construction

PHASE 1 - Enabling Summer of 2021 (get Ready for Modulares , Install Temporary Parking)

PHASE 2 - Install 10 Modulares March 2022 , Demo (1) Pod in June 2022

PHASE 3- Construction for New Building 28 Months

PHASE 4 - August of 2024 Last Phase Demolition of Building, September 2024 – August 2025 Completion of Sitework, Landscaping, Playing Fields

Alternative 3b – New Construction

PHASE 1 - Enabling Summer of 2021 (get Ready for Modulares , Install Temporary Parking) ,

PHASE 2 - Install 20 Modulares March 2022 , Demo (2) Pods in June 2022

PHASE 3- Construction for New Building 28 Months

PHASE 4 - August of 2024 Last Phase Demolition of Building, September 2024 – August 2025 Completion of Sitework, Landscaping, Playing Fields



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29-Apr-20

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The costs presented in this report are ONLY for the comparison between the various options. These costs should not be represented as the final construction costs as the information they are based on is extremely preliminary and final construction costs may vary significantly from the PSR costs once the final design has been completed.

This PSR estimate was produced from outlines drawings dated April 20, 2020 as well as narratives and other documentation prepared by SMMA 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)



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PSR Estimate

GFA 211,746 GFA 213,503 GFA 213,503

CONSTRUCTION COST SUMMARY							
		<i>ALTERNATIVE 2 -</i>		<i>ALTERNATIVE 3 -</i>		<i>ALTERNATIVE 3B -</i>	
		<i>ADD/ RENO</i>		<i>NEW</i>		<i>NEW</i>	
				<i>CONSTRUCTION</i>		<i>CONSTRUCTION</i>	
<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>\$/SF</i>	<i>SUB-TOTAL</i>	<i>\$/SF</i>	<i>SUB-TOTAL</i>	<i>\$/SF</i>
SUMMARY ALL OPTIONS							
A10	FOUNDATIONS						
A1010	Standard Foundations	\$2,821,925	\$13.33	\$2,055,725	\$9.63	\$2,055,725	\$9.63
A1020	Special Foundations	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00
A1030	Lowest Floor	\$1,279,145	\$6.04	\$1,500,166	\$7.03	\$1,500,166	\$7.03
A20	BASEMENT CONSTRUCTION						
A2010	Basement Excavation	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00
A2020	Basement Walls	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00
B10	SUPERSTRUCTURE						
B1010	Upper Floor	\$4,008,330	\$18.93	\$4,689,506	\$21.96	\$4,689,506	\$21.96
B1020	Roof Construction	\$2,444,631	\$11.55	\$3,857,930	\$18.07	\$3,857,930	\$18.07
B20	EXTERIOR CLOSURE						
B2010	Exterior Walls	\$7,731,437	\$36.51	\$8,034,175	\$37.63	\$8,034,175	\$37.63
B2020	Windows	\$3,154,478	\$14.90	\$3,313,828	\$15.52	\$3,313,828	\$15.52
B2030	Exterior Doors	\$146,053	\$0.69	\$147,331	\$0.69	\$147,331	\$0.69
B30	ROOFING						
B3010	Roof Coverings	\$3,832,222	\$18.10	\$3,265,220	\$15.29	\$3,265,220	\$15.29
B3020	Roof Openings	\$50,000	\$0.24	\$50,000	\$0.23	\$50,000	\$0.23
C10	INTERIOR CONSTRUCTION						
C1010	Partitions	\$6,033,900	\$28.50	\$6,077,825	\$28.47	\$6,077,825	\$28.47
C1020	Interior Doors	\$1,270,476	\$6.00	\$1,281,018	\$6.00	\$1,281,018	\$6.00
C1030	Specialties/Millwork	\$2,003,651	\$9.46	\$2,090,150	\$9.79	\$2,090,150	\$9.79
C20	STAIRCASES						
C2010	Stair Construction	\$194,000	\$0.92	\$328,000	\$1.54	\$328,000	\$1.54
C2020	Stair Finishes	\$25,986	\$0.12	\$77,228	\$0.36	\$77,228	\$0.36
C30	INTERIOR FINISHES						
C3010	Wall Finishes	\$1,588,096	\$7.50	\$1,601,273	\$7.50	\$1,601,273	\$7.50
C3020	Floor Finishes	\$3,055,459	\$14.43	\$2,882,291	\$13.50	\$2,882,291	\$13.50
C3030	Ceiling Finishes	\$2,223,334	\$10.50	\$2,241,782	\$10.50	\$2,241,782	\$10.50
D10	CONVEYING SYSTEMS						
D1010	Elevator	\$170,000	\$0.80	\$340,000	\$1.59	\$340,000	\$1.59
D20	PLUMBING						
D20	Plumbing	\$3,803,999	\$17.96	\$3,736,303	\$17.50	\$3,736,303	\$17.50
D30	HVAC						
D30	HVAC	\$12,175,396	\$57.50	\$12,276,423	\$57.50	\$12,276,423	\$57.50
D40	FIRE PROTECTION						
D40	Fire Protection	\$1,320,233	\$6.23	\$1,264,267	\$5.92	\$1,264,267	\$5.92
D50	ELECTRICAL						
D5040	Electrical Systems	\$8,310,158	\$39.25	\$8,378,241	\$39.24	\$8,378,241	\$39.24
E10	EQUIPMENT						
E10	Equipment	\$626,800	\$2.96	\$682,800	\$3.20	\$682,800	\$3.20
E20	FURNISHINGS						
E2010	Fixed Furnishings	\$2,298,224	\$10.85	\$2,112,269	\$9.89	\$2,112,269	\$9.89
F20	HAZMAT REMOVALS						
F2010	Interior Demo	\$1,359,681	\$6.42	\$0	\$0.00	\$0	\$0.00
F2020	Hazardous Abatement	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL DIRECT COST (Trade Costs)		\$71,927,614	\$339.69	\$72,283,751	\$338.56	\$72,283,751	\$338.56



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GFA

65,629

GFA

146,117

GFA

211,746

CONSTRUCTION COST SUMMARY

Renovation

Addition

TOTAL

BUILDING SYSTEM

SUB-TOTAL

\$/SF

SUB-TOTAL

\$/SF

SUB-TOTAL

\$/SF

SUMMARY ALTERNATIVE 2

A10 FOUNDATIONS

A1010	Standard Foundations	\$20,000	\$0.30	\$2,801,925	\$19.18	\$2,821,925	\$13.33
A1020	Special Foundations	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00
A1030	Lowest Floor	\$328,145	\$5.00	\$951,000	\$6.51	\$1,279,145	\$6.04

A20 BASEMENT CONSTRUCTION

A2010	Basement Excavation	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00
A2020	Basement Walls	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00

B10 SUPERSTRUCTURE

B1010	Upper Floor	\$525,032	\$8.00	\$3,483,298	\$23.84	\$4,008,330	\$18.93
B1020	Roof Construction	\$30,000	\$0.46	\$2,414,631	\$16.53	\$2,444,631	\$11.55

B20 EXTERIOR CLOSURE

B2010	Exterior Walls	\$261,620	\$3.99	\$7,469,817	\$51.12	\$7,731,437	\$36.51
B2020	Windows	\$686,571	\$10.46	\$2,467,907	\$16.89	\$3,154,478	\$14.90
B2030	Exterior Doors	\$46,942	\$0.72	\$99,111	\$0.68	\$146,053	\$0.69

B30 ROOFING

B3010	Roof Coverings	\$1,810,740	\$27.59	\$2,021,482	\$13.83	\$3,832,222	\$18.10
B3020	Roof Openings	\$0	\$0.00	\$50,000	\$0.34	\$50,000	\$0.24

C10 INTERIOR CONSTRUCTION

C1010	Partitions	\$1,640,725	\$25.00	\$4,393,175	\$30.07	\$6,033,900	\$28.50
C1020	Interior Doors	\$393,774	\$6.00	\$876,702	\$6.00	\$1,270,476	\$6.00
C1030	Specialties/Millwork	\$528,401	\$8.05	\$1,475,250	\$10.10	\$2,003,651	\$9.46

C20 STAIRCASES

C2010	Stair Construction	\$0	\$0.00	\$194,000	\$1.33	\$194,000	\$0.92
C2020	Stair Finishes	\$0	\$0.00	\$25,986	\$0.18	\$25,986	\$0.12

C30 INTERIOR FINISHES

C3010	Wall Finishes	\$492,218	\$7.50	\$1,095,878	\$7.50	\$1,588,096	\$7.50
C3020	Floor Finishes	\$1,082,879	\$16.50	\$1,972,580	\$13.50	\$3,055,459	\$14.43
C3030	Ceiling Finishes	\$689,105	\$10.50	\$1,534,229	\$10.50	\$2,223,334	\$10.50

D10 CONVEYING SYSTEMS

D1010	Elevator	\$0	\$0.00	\$170,000	\$1.16	\$170,000	\$0.80
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D20 PLUMBING

D20	Plumbing	\$1,246,951	\$19.00	\$2,557,048	\$17.50	\$3,803,999	\$17.96
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D30 HVAC

D30	HVAC	\$3,773,668	\$57.50	\$8,401,728	\$57.50	\$12,175,396	\$57.50
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D40 FIRE PROTECTION

D40	Fire Protection	\$426,589	\$6.50	\$893,644	\$6.12	\$1,320,233	\$6.23
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GFA

65,629

GFA

146,117

GFA

211,746

CONSTRUCTION COST SUMMARY

Renovation

Addition

TOTAL

BUILDING SYSTEM

SUB-TOTAL

\$/SF

SUB-TOTAL

\$/SF

SUB-TOTAL

\$/SF

SUMMARY ALTERNATIVE 2

D50 ELECTRICAL

D5040	Electrical Systems	\$2,543,124	\$38.75	\$5,767,034	\$39.47	\$8,310,158	\$39.25
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E10 EQUIPMENT

E10	Equipment	\$0	\$0.00	\$626,800	\$4.29	\$626,800	\$2.96
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E20 FURNISHINGS

E2010	Fixed Furnishings	\$840,841	\$12.81	\$1,457,383	\$9.97	\$2,298,224	\$10.85
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F20 HAZMAT REMOVALS

F2010	Interior Demo	\$1,359,681	\$20.72	\$0	\$0.00	\$1,359,681	\$6.42
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TOTAL DIRECT COST (Trade Costs)		\$18,727,006	\$285.35	\$53,200,608	\$364.10	\$71,927,614	\$339.69
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PSR Estimate

GFA

65,629

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2 - ADD/RENO - RENOVATION

GROSS FLOOR AREA CALCULATION

First Floor 65,629

TOTAL GROSS FLOOR AREA (GFA)						65,629	sf
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Existing foundations

Repair cracking/ control joints at foundation walls 1 ls 20,000.00 20,000
SUBTOTAL 20,000

A1020 SPECIAL FOUNDATIONS

No Work in this section

SUBTOTAL

A1030 LOWEST FLOOR CONSTRUCTION

Patch/repair existing slab for shear wall footings/ interior re-
configurations/ MEP upgrades 65,629 sf 5.00 328,145
SUBTOTAL 328,145

TOTAL - FOUNDATIONS						\$348,145
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A20 BASEMENT CONSTRUCTION

A2010 BASEMENT EXCAVATION

No Work in this section

SUBTOTAL

A2020 BASEMENT WALLS

No Work in this section

SUBTOTAL

TOTAL - BASEMENT CONSTRUCTION						
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B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

Allowance for lateral force upgrades; shear walls & associated
foundations 65,629 sf 8.00 525,032
SUBTOTAL 525,032

B1020 ROOF CONSTRUCTION

Roof structural upgrades for snow loads 1 ls 30,000.00 30,000
SUBTOTAL 30,000

TOTAL - SUPERSTRUCTURE						\$555,032
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B20 EXTERIOR CLOSURE

B2010 EXTERIOR WALLS

Existing Building

Exterior skin

Repoint existing masonry NR
Recaulking at all locations 22,770 sf 3.00 68,310
Paint/repair to gables 1 ls 25,000.00 25,000
Repair and shore at openings 1 ls 100,000.00 100,000



PSR Estimate

GFA 65,629

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
ALTERNATIVE 2 - ADD/RENO - RENOVATION							
60	Scaffold to exterior walls	22,770	sf	3.00	68,310		
61	SUBTOTAL					261,620	
62	B2020 WINDOWS						
63	Existing Building						
64	Aluminum windows/ Storefront replacement	5,693	sf				
65	Aluminum windows/ Storefront replacement	5,693	sf	110.00	626,230		
66	Air/Vapor barrier at window & louver openings	2,277	lf	4.50	10,247		
67	Backer rod & sealant at window & louver openings	2,277	lf	10.00	22,770		
68	Wood blocking at window openings	2,277	lf	12.00	27,324		
69	SUBTOTAL					686,571	
70	B2030 EXTERIOR DOORS						
71	<u>Exterior Doors - Aluminum</u>						
72	6'-0" x 7'-0"	4	pr	8,000.00	32,000		
73	<u>FRP doors, frames and HW</u>						
74	Single leaf - allow	2	ea	1,600.00	3,200		
75	Double leaf - allow	1	pr	2,500.00	2,500		
76	Overhead door	1	al	7,500.00	7,500		
77	<u>Miscellaneous</u>						
78	Backer rod & sealant to exterior doors	134	lf	9.00	1,206		
79	Wood blocking at door openings	134	lf	4.00	536		
80	SUBTOTAL					46,942	
81	TOTAL - EXTERIOR CLOSURE						
82							\$995,133
83	B30 ROOFING						
84	B3010 ROOF COVERINGS						
85	Remove existing roofing, replace new PVC membrane	65,629	sf	24.00	1,575,096		
86	12" wide Factory fabricated pre-finished aluminum fascia trim/roof	1,400	lf	50.00	70,000		
87	Miscellaneous sealants & flashings at roof	65,629	sf	1.50	98,444		
88	Roof blocking	8,400	lf	8.00	67,200		
89	SUBTOTAL					1,810,740	
90	B3020 ROOF OPENINGS						
91	SUBTOTAL						Included w/ Addition
92	TOTAL - ROOFING						
93							\$1,810,740
94	C10 INTERIOR CONSTRUCTION						
95	C1010 PARTITIONS						
96	Reconfigure and infill where necessary existing partitions, add new	65,629	gsf	20.00	1,312,580		
97	GWB & CMU partitions						
98	Glazed walls/borrowed lights	65,629	gsf	4.00	262,516		
99	Sealants & caulking at partitions	65,629	gsf	1.00	65,629		
100	SUBTOTAL					1,640,725	
101	C1020 INTERIOR DOORS						
102	Allowance for all interior doors	65,629	gsf	6.00	393,774		
103	SUBTOTAL					393,774	
104	C1030 SPECIALTIES / MILLWORK						
105	Toilet compartments & accessories	65,629	sf	0.80	52,503		
106	Tack boards/Marker Boards	65,629	gsf	1.00	65,629		
107	Fire extinguisher cabinets	19	ea	350.00	6,650		
108	Allowance for millwork	65,629	gsf	2.00	131,258		



PSR Estimate

GFA 65,629

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2 - ADD/RENO - RENOVATION

118	Cubbies/Lockers	65,629	gsf	1.50	w/addition		
119	Signage	65,629	gsf	0.90	59,066		
120	Misc. blocking	65,629	gsf	0.50	32,815		
121	Misc. metals	65,629	gsf	1.50	98,444		
122	Misc. sealants	65,629	gsf	1.25	82,036		
123	SUBTOTAL					528,401	

TOTAL - INTERIOR CONSTRUCTION						\$2,562,900
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C20 STAIRCASES

C2010 STAIR CONSTRUCTION

No items in this section

SUBTOTAL

C2020 STAIR FINISHES

No items in this section

SUBTOTAL

TOTAL - STAIRCASES						
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C30 INTERIOR FINISHES

C3010 WALL FINISHES

Wall finishes; complete

65,629 gsf 7.50 492,218

SUBTOTAL

492,218

C3020 FLOOR FINISHES

Leveling at existing floors

65,629 sf 3.00 196,887

Floor finishes complete; typical flooring is Linoleum; includes athletic flooring and all CT where required

65,629 gsf 13.50 885,992

SUBTOTAL

1,082,879

C3030 CEILING FINISHES

Ceilings; complete

65,629 gsf 10.50 689,105

SUBTOTAL

689,105

TOTAL - INTERIOR FINISHES						\$2,264,202
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D10 CONVEYING SYSTEMS

D1010 ELEVATOR

Elevator pit ladder & sills

Included w/ Addition

SUBTOTAL

TOTAL - CONVEYING SYSTEMS						
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D20 PLUMBING

D20 PLUMBING, GENERALLY

Replace all fixtures and distribution; all new piping and distribution

65,629 gsf 19.00 1,246,951

SUBTOTAL

1,246,951



PSR Estimate

GFA 65,629

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2 - ADD/RENO - RENOVATION

174	TOTAL - PLUMBING						\$1,246,951
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175							
176							
177	D30 HVAC						

179	D30 HVAC, GENERALLY						
180	HVAC equipment; air-cooled modular heat pump units; DOAS for displacement cooling including VAV boxes and displacement diffusers	65,629	gsf	8.00	525,032		
181	Air distribution	65,629	gsf	10.00	656,290		
182	Ductwork & accessories	65,629	gsf	17.00	1,115,693		
183	Hot water piping	65,629	gsf	8.00	525,032		
184	Refrigerant piping	65,629	gsf	3.00	196,887		
185	Condensate drain piping	65,629	gsf	1.00	65,629		
186	Pipe insulation	65,629	gsf	1.50	98,444		
187	Automatic temperature control DDC;	65,629	gsf	6.00	393,774		
188	Testing & balancing	65,629	gsf	1.00	65,629		
189	Miscellaneous - Fees, Permits, Coordination	65,629	gsf	2.00	131,258		
190	SUBTOTAL					3,773,668	

191	TOTAL - HVAC						\$3,773,668
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192							
193							
194							
195	D40 FIRE PROTECTION						

196	D40 FIRE PROTECTION, GENERALLY						
197							
198	Fire protection	65,629	gsf	6.50	426,589		
199	SUBTOTAL					426,589	

200	TOTAL - FIRE PROTECTION						\$426,589
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201							
202							
203							
204	D50 ELECTRICAL						

205							
206	Electrical requirements including gear and distribution, sub-metering, equipment wiring and connections, Em Gen diesel 400 Kw, lighting, networked light controls, branch devices and associated wiring, Fire alarm system, BDA, Mass notification system, and lightening protection system	65,629	gsf	28.00	1,837,612		
207	BDA system	65,629	gsf	0.65	42,659		
208	Classroom speech enhancement	35	rooms	3,000.00	w/addition		
209	Fire alarm system	65,629	gsf	2.10	137,821		
210	Telecommunications including devices, cabling, network switches (by FFE), sound systems at gym, audio & video equipment, PA, Security system	65,629	gsf	8.00	525,032		
211	SUBTOTAL					2,543,124	

212	TOTAL - ELECTRICAL						\$2,543,124
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213							
214							
215	E10 EQUIPMENT						

216	E10 EQUIPMENT, GENERALLY						
217							
218							
219						Included w/ Addition	
220	SUBTOTAL						

221	TOTAL - EQUIPMENT						
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222							
223							
224							
225	E20 FURNISHINGS						



PSR Estimate

GFA 65,629

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
ALTERNATIVE 2 - ADD/RENO - RENOVATION							
227	E2010 FIXED FURNISHINGS						
228	Casework allowance (solid surface tops at all locations)	65,629	gsf	10.00	656,290		
229	Recessed entry mats - allow	100	sf	32.00	3,200		
230	Replace existing auditorium seats	350	ea	400.00	140,000		
231	Walk off mats - allow	100	sf	15.00	1,500		
232	Window treatments	5,693	sf	7.00	39,851		
233	SUBTOTAL					840,841	
234	E2020 MOVABLE FURNISHINGS						
235	All movable furnishings to be provided and installed by owner						
236	SUBTOTAL						
237						NIC	
238	TOTAL - FURNISHINGS						
239							\$840,841
240	F10 SPECIAL CONSTRUCTION						
241	F10 SPECIAL CONSTRUCTION						
242	No items in this section						
243	SUBTOTAL						
244	TOTAL - SPECIAL CONSTRUCTION						
245	F20 SELECTIVE BUILDING DEMOLITION						
246	F2010 BUILDING ELEMENTS DEMOLITION						
247	Remove windows/storefront, typical	5,693	sf	8.00	45,544		
248	Demo slab for shear walls & reconfigurations	65,629	sf	10.00	656,290		
249	Demolish exterior wall	1	ls	100,000.00	100,000		
250	Interior demolition - doors, partitions, floors, ceilings & wall finishes	65,629	gsf	7.00	459,403		
251	Remove cut & capped MEP equipment and fixtures	65,629	sf	0.50	32,815		
252	Miscellaneous demolition throughout including lockers, casework etc.	65,629	sf	1.00	65,629		
253	SUBTOTAL					1,359,681	
254	F2020 HAZARDOUS COMPONENTS ABATEMENT						
255	Removal of Asbestos Containing Materials in existing building - Included in Summary						
256	SUBTOTAL						
257	TOTAL - SELECTIVE BUILDING DEMOLITION						
258							\$1,359,681



PSR Estimate

GFA 146,117

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2 - ADD/RENO - ADDITION

GROSS FLOOR AREA CALCULATION

1							
2	Level 1	64,738					
3	Level 2	41,377					
4	Level 3	32,002					
5	Level 2 PH	2,000					
6	Level 4 PH	6,000					

TOTAL GROSS FLOOR AREA (GFA)						146,117 sf	
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A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Strip footings: 3'-0" x 1'-0"

15	Excavation	3,241	cy	12.00	38,892		
16	Store on site for reuse	3,241	cy	8.00	25,928		
17	Backfill with selected material	2,949	cy	9.00	26,541		
18	Formwork	30,000	sf	14.00	420,000		
19	Re-bar	25,000	lbs	1.50	37,500		
20	Concrete material; 3,000 psi	292	cy	135.00	39,420		
21	Placing concrete	292	cy	120.00	35,040		
22	<u>Foundation wall: 18" thick</u>						
23	Formwork	20,000	sf	18.00	360,000		
24	Re-bar	40,000	lbs	1.50	60,000		
25	Concrete material; 3,000 psi	583	cy	135.00	78,705		
26	Placing concrete	583	cy	120.00	69,960		
27	Dampproofing foundation wall and footing	15,000	sf	1.85	NR		
28	Insulation to foundation walls; 2" thick; both sides	20,000	sf	2.50	50,000		
29	Form shelf	2,500	lf	6.00	15,000		
30	<u>Column footings - 9' x 9' x 2'-2" interior footing</u>						
31	Excavation	5,007	cy	14.00	70,098		
32	Store on site for reuse	5,007	cy	8.00	40,056		
33	Backfill with selected material	3,642	cy	12.00	43,704		
34	Formwork	15,602	sf	16.00	249,632		
35	Re-bar	150,000	lbs	1.50	225,000		
36	Concrete material; 3,000 psi	1,365	cy	135.00	184,275		
37	Placing concrete	1,365	cy	150.00	204,750		

Column footings - 6'-6" x 6'-6" x 1'-8" exterior footing

39	Excavation	817	cy	14.00	11,438		
40	Store on site for reuse	817	cy	8.00	6,536		
41	Backfill with selected material	543	cy	12.00	6,516		
42	Formwork	4,334	sf	16.00	69,344		
43	Re-bar	35,000	lbs	1.50	52,500		
44	Concrete material; 3,000 psi	274	cy	135.00	36,990		
45	Placing concrete	274	cy	150.00	41,100		

Miscellaneous

47	Allowance for foundation work at connection existing	1	ls	50,000.00	50,000		
48	Foundation drain	2,500	lf	16.00	40,000		
49	Piers/pilasters	178	cy	750.00	133,500		
50	Set anchor bolts grout plates	300	ea	165.00	49,500		
51	Dewatering allowance	1	ls	30,000.00	30,000		
52	SUBTOTAL					2,801,925	

A1020 SPECIAL FOUNDATIONS

No Work in this section



PSR Estimate

GFA 146,117

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2 - ADD/RENO - ADDITION

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SUBTOTAL

A1030 LOWEST FLOOR CONSTRUCTION

New Slab on grade, 4-6" thick

Rough and fine grade	64,738	sf	0.50	32,369
Base course; 12" thick; compacted	2,398	cy	40.00	95,920
Mesh Re-bar 15% lap	74,449	sf	1.15	85,616
Concrete -5" thick, average; 4,000 psi	1,032	cy	145.00	149,640
Place & finish including control joints	64,738	sf	2.50	161,845
Moisture Mitigation; admixture	1,032	cy	60.00	61,920
Vapor barrier under slab on grade	64,738	sf	1.00	64,738
Rigid insulation beneath slab on grade; 2" thick	64,738	sf	2.50	161,845

Miscellaneous

Radon system; passive system	64,738	sf	1.50	97,107
Equipment pads	1	ls	5,000.00	5,000
Elevator pit	1	ls	35,000.00	35,000

SUBTOTAL

951,000

TOTAL - FOUNDATIONS	\$3,752,925
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A20 BASEMENT CONSTRUCTION

A2010 BASEMENT EXCAVATION

No Work in this section

SUBTOTAL

A2020 BASEMENT WALLS

No Work in this section

SUBTOTAL

TOTAL - BASEMENT CONSTRUCTION	
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B10 SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

Floor Structure - Steel:

Structure at Typical floors; 13 PSF	529	tns	3,900.00	2,063,100
Premium for HSS steel	132	tns	400.00	52,800
Shear studs	10,172	ea	6.00	61,032
<u>Decking</u>				
Metal floor decking; 2", 18 gage	81,379	sf	4.00	325,516
Mesh reinforcement in concrete topping	93,586	sf	1.15	107,624
Concrete topping to metal decking, 5 1/2" thick; Light weight	1,503	cy	175.00	263,025
Placing concrete topping	81,379	sf	3.00	244,137
Moisture Mitigation; admixture	1,503	cy	60.00	90,180

Miscellaneous

Rebar at slab edges	20,345	lbs	1.50	30,518
Allowance for expansion joints	1	ls	20,000.00	20,000
Firestopping at floor penetrations	146,117	gsf	0.15	21,918
Spray-applied fireproofing to beams and columns only	81,379	sf	2.50	203,448

SUBTOTAL

3,483,298

B1020 ROOF CONSTRUCTION

Roof Structure - Steel:

Structure at roof; 13 PSF	463	tns	3,900.00	1,805,700
Premium for HSS steel	116	tns	400.00	46,400

Decking



PSR Estimate

GFA 146,117

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2 - ADD/RENO - ADDITION

115	Metal roof decking; 1-1/2"	71,212	sf	3.75	267,045		
116	Premium for acoustic deck at Gymnasium, Flexitorium and Commons	10,370	sf	5.00	51,850		
117	<u>Miscellaneous</u>						
118	Canopy framing - allowance	1,000	sf	30.00	30,000		
119	Spray-applied fireproofing to beams and deck	71,212	sf	3.00	213,636		
120	SUBTOTAL					2,414,631	

TOTAL - SUPERSTRUCTURE							\$5,897,929
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B20 EXTERIOR CLOSURE

127	B2010 EXTERIOR WALLS	56,971	sf				
128	<u>Interior skin</u>						
129	6" metal stud back-up	56,971	sf	10.00	569,710		
130	GWB to inside of exterior wall; includes sealing at all penetrations	56,971	sf	5.50	313,341		
131	Gypsum densglass sheathing board	56,971	sf	2.90	165,216		
132	Air/Vapor barrier to exterior walls, peel + stick	56,971	sf	8.00	455,768		
133	Rigid insulation, 3"	56,971	sf	2.50	142,428		
134	Batt insulation	56,971	sf	7.50	427,283		
135	Soffit framing including backup at canopy	1,000	sf	23.40	23,400		
136	<u>Exterior skin</u>						
137	Face brick with trim	14,243	sf	40.00	569,720		
138	Composite aluminum panel rainscreen system; Phenolic or similar; 75% of exterior hard wall	42,728	sf	80.00	3,418,240		
139	Insulated metal panel system at PH installed on girts	11,559	sf	75.00	866,925		
140	Exterior signage - allowance	1	ls	10,000.00	10,000		
141	Exterior soffit; composite aluminum panel at canopy	1,000	sf	90.00	90,000		
142	Miscellaneous sealants & flashings at closure	75,961	sf	1.00	75,961		
143	Misc. metals	75,961	sf	1.50	113,942		
144	Scaffold to exterior walls	75,961	sf	3.00	227,883		
145	SUBTOTAL					7,469,817	

147	B2020 WINDOWS	18,990	sf				
148	Aluminum high performance window system	13,293	sf	105.00	1,395,765		
149	Curtainwall w/ spandrel panels; high performance glazing	5,697	sf	125.00	712,125		
150	Sunshades - allow	1	ls	150,000.00	150,000		
151	Louvers - allow	50	sf	55.00	2,750		
152	Air/Vapor barrier at window & louver openings	7,026	lf	6.50	45,669		
153	Backer rod & sealant at window & louver openings	7,026	lf	9.00	63,234		
154	Wood blocking at window openings	7,026	lf	14.00	98,364		
155	SUBTOTAL					2,467,907	

157	B2030 EXTERIOR DOORS						
158	<u>Exterior Doors - Aluminum</u>						
159	6'-0" x 7'-0"	6	pr	10,000.00	60,000		
160	3'-0" x 7'-0"	6	ea	5,000.00	30,000		
161	<u>FRP doors, frames and HW</u>						
162	Single leaf - allow	1	ea	1,600.00	1,600		
163	Double leaf - allow	2	pr	2,500.00	5,000		
164	<u>Miscellaneous</u>						
165	Backer rod & sealant to exterior doors	279	lf	5.00	1,395		
166	Wood blocking at door openings	279	lf	4.00	1,116		
167	SUBTOTAL					99,111	



PSR Estimate

GFA 146,117

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	ESTD COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2 - ADD/RENO - ADDITION

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TOTAL - EXTERIOR CLOSURE							\$10,036,835
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B30 ROOFING

B3010 ROOF COVERINGS							
	PVC roof membrane, complete	71,212	sf	22.00	1,566,664		
	12" wide Factory fabricated pre-finished aluminum fascia trim/roof edge	2,500	lf	50.00	125,000		
	Membrane roof walkway pads	1	ls	8,000.00	8,000		
	Canopy - allowance	1,000	sf	75.00	75,000		
	Miscellaneous sealants & flashings at roof	71,212	sf	1.50	106,818		
	Roof blocking	15,000	lf	8.00	120,000		
	Allowance for miscellaneous roof accessories; hatches, ladders etc.	1	ls	20,000.00	20,000		
	SUBTOTAL					2,021,482	
B3020 ROOF OPENINGS							
	Aluminum skylight - allow	1	ls	50,000.00	50,000		
	SUBTOTAL					50,000	

TOTAL - ROOFING							\$2,071,482
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C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS							
	Operable walls; glass folding	3,675	sf	150.00	551,250		
	Operable walls; hard folding	2,100	sf	90.00	189,000		
	Interior partitions/glazing	146,117	gsf	25.00	3,652,925		
	SUBTOTAL					4,393,175	
C1020 INTERIOR DOORS							
	Allowance for all interior doors	146,117	gsf	6.00	876,702		
	SUBTOTAL					876,702	
C1030 SPECIALTIES / MILLWORK							
	Toilet compartments & accessories	146,117	sf	0.80	116,894		
	Tack boards/Marker Boards	146,117	gsf	1.00	146,117		
	IWB					FF&E	
	Fire extinguisher cabinets	42	ea	350.00	14,700		
	Allowance for millwork	146,117	gsf	2.00	292,234		
	Cubbies	1,055	opning	350.00	369,250		
	Lockers	10	opning	220.00	2,200		
	Signage	146,117	gsf	0.90	131,505		
	Misc. blocking	1,055	gsf	0.50	528		
	Misc. metals	146,117	gsf	1.50	219,176		
	Misc. sealants	146,117	gsf	1.25	182,646		
	SUBTOTAL					1,475,250	

TOTAL - INTERIOR CONSTRUCTION							\$6,745,127
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C20 STAIRCASES



PSR Estimate

GFA 146,117

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2 - ADD/RENO - ADDITION

222	C2010 STAIR CONSTRUCTION							
223	Egress stair	2	flt	30,000.00	60,000			
224	Common area stair	2	flt	60,000.00	120,000			
225	Concrete fill to stairs	4	flt	3,500.00	14,000			
226	SUBTOTAL					194,000		
227								
228	C2020 STAIR FINISHES							
229	Rubber tile at egress stairs - landings	240	sf	14.00	3,360			
230	Rubber tile at egress stairs - treads & risers	483	lft	22.00	10,626			
231	High performance coating to stairs including all railings etc.	4	flt	3,000.00	12,000			
232	SUBTOTAL					25,986		
233								
234	TOTAL - STAIRCASES						\$219,986	

235								
236								
237	C30 INTERIOR FINISHES							
238								
239	C3010 WALL FINISHES							
240	Wall finishes; complete	146,117	gsf	7.50	1,095,878			
241	SUBTOTAL					1,095,878		
242								
243	C3020 FLOOR FINISHES							
244	Floor finishes complete; typical flooring is Linoleum; includes athletic flooring and all CT where required	146,117	gsf	13.50	1,972,580			
245	SUBTOTAL					1,972,580		
246								
247	C3030 CEILING FINISHES							
248	Ceilings; complete	146,117	gsf	10.50	1,534,229			
249	SUBTOTAL					1,534,229		
250								
251	TOTAL - INTERIOR FINISHES						\$4,602,687	

252								
253								
254	D10 CONVEYING SYSTEMS							
255								
256	D1010 ELEVATOR							
257	Elevator pit ladder & sills	1	ls	5,000.00	5,000			
258	Passenger elevator, 3 stop	1	ea	165,000.00	165,000			
259	SUBTOTAL					170,000		
260								
261	TOTAL - CONVEYING SYSTEMS						\$170,000	

262								
263								
264	D20 PLUMBING							
265								
266	D20 PLUMBING, GENERALLY							
267	All work in the Addition is new and consists of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Plumbing work and all items incidental thereto, including commissioning and testing.	146,117	gsf	17.50	2,557,048			
268	SUBTOTAL					2,557,048		
269								
270	TOTAL - PLUMBING						\$2,557,048	

271							
272							
273	D30 HVAC						



PSR Estimate

GFA 146,117

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2 - ADD/RENO - ADDITION

274								
275	D30 HVAC, GENERALLY							
276	HVAC equipment; air-cooled modular heat pump units; DOAS for displacement cooling including VAV boxes and displacement diffusers	146,117	gsf	8.00	1,168,936			
277	Air distribution	146,117	gsf	10.00	1,461,170			
278	Ductwork & accessories	146,117	gsf	17.00	2,483,989			
279	Hot water piping	146,117	gsf	8.00	1,168,936			
280	Refrigerant piping	146,117	gsf	3.00	438,351			
281	Condensate drain piping	146,117	gsf	1.00	146,117			
282	Pipe insulation	146,117	gsf	1.50	219,176			
283	Automatic temperature control DDC	146,117	gsf	6.00	876,702			
284	Testing & balancing	146,117	gsf	1.00	146,117			
285	Miscellaneous - Fees, Permits, Coordination	146,117	gsf	2.00	292,234			
286	SUBTOTAL					8,401,728		
287								
288	TOTAL - HVAC							\$8,401,728
289								
290								
291	D40 FIRE PROTECTION							
292								
293	D40 FIRE PROTECTION, GENERALLY							
294	Fire pump	1	ls	90,000.00	90,000			
295	Fire protection	146,117	gsf	5.50	803,644			
296	SUBTOTAL					893,644		
297								
298	TOTAL - FIRE PROTECTION							\$893,644
299								
300								
301	D50 ELECTRICAL							
302								
303	Electrical requirements including gear and distribution, sub-metering, equipment wiring and connections, Em Gen diesel 400 Kw, lighting, networked light controls, branch devices and associated wiring. Fire alarm system, BDA, Mass notification system, and lightening protection system	146,117	gsf	28.00	4,091,276			
304	BDA system	146,117	gsf	0.65	94,976			
305	Classroom speech enhancement	35	rooms	3,000.00	105,000			
306	Fire alarm system	146,117	gsf	2.10	306,846			
307	Telecommunications including devices, cabling, network switches (by FFE), sound systems at gym, audio & video equipment, PA, Security system	146,117	gsf	8.00	1,168,936			
308	SUBTOTAL					5,767,034		
309								
310	TOTAL - ELECTRICAL							\$5,767,034
311								
312								
313	E10 EQUIPMENT							
314								
315	E10 EQUIPMENT, GENERALLY							
316	Residential appliances	1	ls	15,000.00	15,000			
317	Kitchen Equipment	1	ls	360,000.00	360,000			
318	Platform Curtains & Rigging	1	ls	75,000.00	75,000			
319	Projection screens; three screens	1	ea	25,000.00	25,000			
320								
321	116600 ATHLETIC EQUIPMENT							
322	Scoreboard and shot clock	1	ea	15,000.00	15,000			
323	Volleyball sleeves	1	ls	3,000.00	3,000			



PSR Estimate

GFA 146,117

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 2 - ADD/RENO - ADDITION

324	Gym wall pads	1,650	sf	16.00	26,400		
325	Basketball backstops; retractable	6	ea	10,500.00	63,000		
326	Gymnasium dividing net	1,320	sf	20.00	26,400		
327	Motorized assisted telescoping gymnasium bleacher seating, 100 seats	1	ls	18,000.00	18,000		
328	SUBTOTAL					626,800	
TOTAL - EQUIPMENT							\$626,800

E20 FURNISHINGS

E2010 FIXED FURNISHINGS

336	Casework allowance (PLam tops at all locations)	146,117	gsf	9.00	1,315,053		
337	Recessed entry mats - allow	200	sf	32.00	6,400		
338	Walk off mats - allow	200	sf	15.00	3,000		
339	Window treatments	18,990	sf	7.00	132,930		
340	SUBTOTAL					1,457,383	

E2020 MOVABLE FURNISHINGS

All movable furnishings to be provided and installed by owner

SUBTOTAL

NIC

TOTAL - FURNISHINGS

\$1,457,383

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 - ALTERNATIVE 2 - ADD/RENO

1							
2	G	SITEWORK	640,000	sf		-	
3							
4	G10	SITE PREPARATION & DEMOLITION					
5		<u>Site Demolitions and Relocations</u>					
6		Clear and grub allowance	1	ls	75,000.00	75,000	
7		Remove and dispose Bituminous Paving	1	ls	125,000.00	125,000	
8		Protect and maintain trees	1	ls	25,000.00	25,000	
9		Remove existing utilities + structures	1	ls	10,000.00	10,000	
10		Site construction fence/barricades	3,500	lf	18.00	63,000	
11		<u>Site Earthwork</u>					
12		Strip topsoil, store on site	5,556	cy	16.00	88,896	
13		Cut + fills, assumed balanced	18,875	cy	20.00	377,500	
14		Fine grading	71,111	sy	2.00	142,222	
15		Construction entrance	2,000	sf	6.00	12,000	
16		Silt fence/erosion control	3,500	lf	11.00	38,500	
17		Erosion control maintenance	1	ls	25,000.00	25,000	
18		<u>Hazardous Waste Remediation</u>					
19		Remove oil tanks				NR	
20		SUBTOTAL					982,118
21							
22	G20	SITE IMPROVEMENTS					
23		<u>Roadways and Parking Lots</u>					
24		Bituminous concrete paving	150,000	sf		-	
25		gravel base 12"	5,556	cy	38.00	211,128	
26		bituminous concrete 4"	16,667	sy	28.00	466,676	
27		Vertical granite curbs	5,900	lf	42.00	247,800	
28		Other road markings	1	ls	10,000.00	10,000	
29		HC curb cuts	2	loc	350.00	700	
30		New traffic signs	1	ls	10,000.00	10,000	
31		<u>Pedestrian paving</u>					
32		Concrete paving, allow					
33		gravel base; 8" thick	496	cy	38.00	18,848	
34		concrete paving; 4" thick, broom finish	20,000	sf	9.00	180,000	
35		Plaza Paving					
36		gravel base; 8" thick	323	cy	38.00	12,274	
37		concrete paving; 4" thick	13,000	sf	9.00	117,000	
38		paving; plaza	13,000	sf	30.00	390,000	
39		<u>Play surface</u>					
40		gravel base; 8" thick	447	cy	38.00	16,986	
41		Poured in place rubber safety surface	18,000	sf	18.50	333,000	
42		Play equipment	2	loc	250,000.00	500,000	
43		Play equipment; Pre-K	1	loc	100,000.00	100,000	
44		5' Ornamental fence	775	lf	180.00	139,500	
45		<u>Sports Fields</u>				ETR	
46		<u>Site Improvements; allowances</u>					
47		Wetlands Boardwalk	1	ls	350,000.00	350,000	
48		Entrance sign	1	ea	15,000.00	15,000	
49		Allowance for other site improvements; site steps, walls, benches, fencing	1	ls	200,000.00	200,000	
50		<u>Landscaping & Plantings:</u>					
51		Spread existing amended topsoil, 6" @ seeded areas	5,556	cy	35.00	194,460	
52		Lawn - loam and seed	308,633	sf	0.35	108,022	
53		<u>Landscaping & Plantings:</u>					
54		Allowance	1	ls	250,000.00	250,000	
55		SUBTOTAL					3,871,394
56							



PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
SITework - ALTERNATIVE 2 - ADD/RENO								
57	G30 CIVIL MECHANICAL UTILITIES							
58	<u>Water supply</u>							
59	8" CLDI	2,000	lf	90.00	180,000			
60	6" DI	300	lf	70.00	21,000			
61	Connect to existing	2	loc	20,000.00	40,000			
62	Fire hydrants	4	loc	2,600.00	10,400			
63	FD connection	1	ea	2,000.00	2,000			
64	Valves	8	ea	750.00	6,000			
65	<u>Sanitary sewer</u>							
66	8" PVC	250	lf	60.00	15,000			
67	6" PVC	200	lf	50.00	10,000			
68	New SMH	6	loc	5,500.00	33,000			
69	Grease trap	1	ls	12,000.00	12,000			
70	Connect to existing SMH	1	ea	2,000.00	2,000			
71	<u>Storm Sewer</u>							
72	Allowance for complete system; piping, drainage structures, rain gardens and infiltration systems - pricing based on site hard surface area	201,000	sf	8.00	1,608,000			
73	SUBTOTAL					1,939,400		
74								
75	G40 ELECTRICAL UTILITIES							
76	<u>Power</u>							
77	Utility company charges (allow)	1	ls	20,000.00	20,000.00	By Owner		
78	Riser	1	ea	1,000.00	1,000			
79	Primary ductbank 2-5" PVC conduits, empty, concrete encased	250	lf	95.00	23,750			
80	Transformer by utility company					By Others		
81	Transformer pad	1	ea	2,500.00	2,500			
82	Secondary ductbank 6-4" PVC conduits, 2500A service, concrete encased	120	lf	420.00	50,400			
83	Generator ductbank EE 5-4" PVC conduits, 800A & 100A service & control wiring, concrete encased	50	lf	200.00	10,000			
84	Conduit for future PV	200	lf	50.00	10,000			
85	<u>Communications</u>							
86	Riser	1	ls	1,000.00	1,000			
87	Telecom ductbank DD 4-4" PVC conduits, empty, concrete encased	500	lf	150.00	75,000			
88	<u>Site Lighting</u>							
89	Lighting including circuitry	150,000	sf	2.50	375,000			
90	SUBTOTAL					548,650		
91								
92	TOTAL - SITE DEVELOPMENT						\$7,341,562	



West Elementary School
Andover, MA

PSR Estimate

GFA

213,503

CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>
SUMMARY ALTERNATIVE 3			
A10 FOUNDATIONS		\$3,555,891	
A1010 Standard Foundations	\$2,055,725		\$9.63
A1020 Special Foundations	\$0		\$0.00
A1030 Lowest Floor	\$1,500,166		\$7.03
A20 BASEMENT CONSTRUCTION		\$0	
A2010 Basement Excavation	\$0		\$0.00
A2020 Basement Walls	\$0		\$0.00
B10 SUPERSTRUCTURE		\$8,547,436	
B1010 Upper Floor	\$4,689,506		\$21.96
B1020 Roof Construction	\$3,857,930		\$18.07
B20 EXTERIOR CLOSURE		\$11,495,334	
B2010 Exterior Walls	\$8,034,175		\$37.63
B2020 Windows	\$3,313,828		\$15.52
B2030 Exterior Doors	\$147,331		\$0.69
B30 ROOFING		\$3,315,220	
B3010 Roof Coverings	\$3,265,220		\$15.29
B3020 Roof Openings	\$50,000		\$0.23
C10 INTERIOR CONSTRUCTION		\$9,448,993	
C1010 Partitions	\$6,077,825		\$28.47
C1020 Interior Doors	\$1,281,018		\$6.00
C1030 Specialties/Millwork	\$2,090,150		\$9.79
C20 STAIRCASES		\$405,228	
C2010 Stair Construction	\$328,000		\$1.54
C2020 Stair Finishes	\$77,228		\$0.36
C30 INTERIOR FINISHES		\$6,725,346	
C3010 Wall Finishes	\$1,601,273		\$7.50
C3020 Floor Finishes	\$2,882,291		\$13.50
C3030 Ceiling Finishes	\$2,241,782		\$10.50
D10 CONVEYING SYSTEMS		\$340,000	
D1010 Elevator	\$340,000		\$1.59
D20 PLUMBING		\$3,736,303	
D20 Plumbing	\$3,736,303		\$17.50
D30 HVAC		\$12,276,423	
D30 HVAC	\$12,276,423		\$57.50



29-Apr-20

West Elementary School
Andover, MA

PSR Estimate

GFA

213,503

CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>
SUMMARY ALTERNATIVE 3			
D40 FIRE PROTECTION		\$1,264,267	
D40 Fire Protection	\$1,264,267		\$5.92
D50 ELECTRICAL		\$8,378,241	
D5040 Electrical Systems	\$8,378,241		\$39.24
E10 EQUIPMENT		\$682,800	
E10 Equipment	\$682,800		\$3.20
E20 FURNISHINGS		\$2,112,269	
E2010 Fixed Furnishings	\$2,112,269		\$9.89
F20 HAZMAT REMOVALS		\$0	
F2010 Interior Demo	\$0		\$0.00
TOTAL DIRECT COST (Trade Costs)		\$72,283,751	\$338.56



PSR Estimate

GFA

213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3 - NEW CONSTRUCTION

GROSS FLOOR AREA CALCULATION

1								
2	Level 1	103,397						
3	Level 2	58,185						
4	Level 3	43,921						
5	Level 3 PH	2,294						
6	Level 4 PH	5,706						
7								
8	TOTAL GROSS FLOOR AREA (GFA)					213,503	sf	

A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Strip footings: 3'-0" x 1'-0"

15	Excavation	2,981	cy	12.00	35,772			
16	Store on site for reuse	2,981	cy	8.00	23,848			
17	Backfill with selected material	2,713	cy	9.00	24,417			
18	Formwork	27,600	sf	14.00	386,400			
19	Re-bar	23,000	lbs	1.50	34,500			
20	Concrete material; 3,000 psi	268	cy	135.00	36,180			
21	Placing concrete	268	cy	120.00	32,160			
22	<u>Foundation wall: 18" thick</u>							
23	Formwork	18,400	sf	18.00	331,200			
24	Re-bar	36,800	lbs	1.50	55,200			
25	Concrete material; 3,000 psi	537	cy	135.00	72,495			
26	Placing concrete	537	cy	120.00	64,440			
27	Dampproofing foundation wall and footing	13,800	sf	1.85	NR			
28	Insulation to foundation walls; 2" thick; both sides	18,400	sf	2.50	46,000			
29	Form shelf	2,300	lf	6.00	13,800			
30	<u>Column footings - 9' x 9' x 2'-2" interior footing</u>							
31	Excavation	2,504	cy	14.00	35,056			
32	Store on site for reuse	2,504	cy	8.00	20,032			
33	Backfill with selected material	1,821	cy	12.00	21,852			
34	Formwork	7,801	sf	16.00	124,816			
35	Re-bar	75,000	lbs	1.50	112,500			
36	Concrete material; 3,000 psi	683	cy	135.00	92,205			
37	Placing concrete	683	cy	150.00	102,450			
38	<u>Column footings - 6'-6" x 6'-6" x 1'-8" exterior footing</u>							
39	Excavation	751	cy	14.00	10,514			
40	Store on site for reuse	751	cy	8.00	6,008			
41	Backfill with selected material	499	cy	12.00	5,988			
42	Formwork	3,987	sf	16.00	63,792			
43	Re-bar	32,200	lbs	1.50	48,300			
44	Concrete material; 3,000 psi	252	cy	135.00	34,020			
45	Placing concrete	252	cy	150.00	37,800			
46	<u>Miscellaneous</u>							
47	Foundation drain	2,300	lf	16.00	36,800			
48	Piers/pilasters	114	cy	750.00	85,500			
49	Set anchor bolts grout plates	192	ea	165.00	31,680			
50	Dewatering allowance	1	ls	30,000.00	30,000			
51	SUBTOTAL						2,055,725	

A1020 SPECIAL FOUNDATIONS

No Work in this section

SUBTOTAL

A1030 LOWEST FLOOR CONSTRUCTION

New Slab on grade, 4-6" thick

57							
58	Rough and fine grade	103,397	sf	0.50	51,699		



PSR Estimate

GFA 213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
ALTERNATIVE 3 - NEW CONSTRUCTION								
60	Base course; 12" thick; compacted	3,830	cy	40.00	153,200			
61	Mesh Re-bar 15% lap	118,907	sf	1.15	136,743			
62	Concrete -5" thick, average; 4,000 psi	1,649	cy	145.00	239,105			
63	Place & finish including control joints	103,397	sf	2.50	258,493			
64	Moisture Mitigation; admixture	1,649	cy	60.00	98,940			
65	Vapor barrier under slab on grade	103,397	sf	1.00	103,397			
66	Rigid insulation beneath slab on grade; 2" thick	103,397	sf	2.50	258,493			
67	<u>Miscellaneous</u>							
68	Radon system; passive system	103,397	sf	1.50	155,096			
69	Equipment pads	1	ls	10,000.00	10,000			
70	New elevator pit	1	ls	35,000.00	35,000			
71	SUBTOTAL					1,500,166		
72								
73	TOTAL - FOUNDATIONS							\$3,555,891
74								
75								
76	A20 BASEMENT CONSTRUCTION							
77								
78	A2010 BASEMENT EXCAVATION							
79	No Work in this section							
80	SUBTOTAL							
81								
82	A2020 BASEMENT WALLS							
83	No Work in this section							
84	SUBTOTAL							
85								
86	TOTAL - BASEMENT CONSTRUCTION							
87								
88								
89	B10 SUPERSTRUCTURE							
90								
91	B1010 FLOOR CONSTRUCTION	1,455						
92	<u>Floor Structure - Steel:</u>							
93	Structure at Typical floors; 13 PSF	716	tns	3,900.00	2,792,400			
94	Premium for HSS steel	179	tns	400.00	71,600			
95	Shear studs	13,763	ea	6.00	82,578			
96	<u>Decking</u>							
97	Metal floor decking; 2", 18 gage	110,106	sf	4.00	440,424			
98	Mesh reinforcement in concrete topping	126,622	sf	1.15	145,615			
99	Concrete topping to metal decking, 5 1/2" thick; Light weight	2,034	cy	175.00	355,950			
100	Placing concrete topping	110,106	sf	3.00	330,318			
101	Moisture Mitigation; admixture	2,034	cy	60.00	122,040			
102	<u>Miscellaneous</u>							
103	Rebar at slab edges	27,527	lbs	1.50	41,291			
104	Firestopping at floor penetrations	213,503	gsf	0.15	32,025			
105	Spray-applied fireproofing to beams and columns only	110,106	sf	2.50	275,265			
106	SUBTOTAL					4,689,506		
107								
108	B1020 ROOF CONSTRUCTION							
109	<u>Roof Structure - Steel:</u>							
110	Structure at roof; 13 PSF	739	tns	3,900.00	2,882,100			
111	Premium for HSS steel	185	tns	400.00	74,000			
112	<u>Decking</u>							
113	Metal roof decking; 3"	113,737	sf	3.75	426,514			
114	Premium for acoustic deck at Gymnasium, Flexitorium and Commons	20,821	sf	5.00	104,105			
115	<u>Miscellaneous</u>							
116	Canopy framing - allowance	1,000	sf	30.00	30,000			
117	Spray-applied fireproofing to beams and deck	113,737	sf	3.00	341,211			
118	SUBTOTAL					3,857,930		
119								



PSR Estimate

GFA 213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3 - NEW CONSTRUCTION

TOTAL - SUPERSTRUCTURE							\$8,547,436
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B20 EXTERIOR CLOSURE							
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B2010 EXTERIOR WALLS		60,447	sf				
<u>Interior skin</u>							
6" metal stud back-up		60,447	sf	10.00	604,470		
GWB to inside of exterior wall; includes sealing at all penetrations		60,447	sf	5.50	332,459		
Gypsum densglass sheathing board		60,447	sf	2.90	175,296		
Air/Vapor barrier to exterior walls, peel + stick		60,447	sf	8.00	483,576		
Rigid insulation, 3"		60,447	sf	2.50	151,118		
Batt insulation		60,447	sf	7.50	453,353		
Soffit framing including backup		2,800	sf	23.40	65,520		
<u>Exterior skin</u>							
Face brick with trim		15,112	sf	40.00	604,480		
Composite aluminum panel rainscreen system; Phenolic or similar; 75% of exterior hard wall		45,335	sf	80.00	3,626,800		
Insulated metal panel system at PH installed on girts		10,613	sf	75.00	795,975		
Exterior signage - allowance		1	ls	10,000.00	10,000		
Exterior soffit; composite aluminum panel at overhangs and canopy		2,800	sf	90.00	252,000		
Miscellaneous sealants & flashings at closure		42,781	sf	1.00	42,781		
Misc. metals		96,966	sf	1.50	145,449		
Scaffold to exterior walls		96,966	sf	3.00	290,898		
SUBTOTAL						8,034,175	

B2020 WINDOWS; 30% of exterior is glazing		25,906	sf				
Aluminum high performance window system		18,134	sf	105.00	1,904,070		
Curtainwall w/ spandrel panels; high performance glazing (30%)		7,772	sf	125.00	971,500		
Sunshades - allow		1	ls	150,000.00	150,000		
Louvers - allow		100	sf	55.00	5,500		
Air/Vapor barrier at window & louver openings		9,585	lf	6.50	62,303		
Backer rod & sealant at window & louver openings		9,585	lf	9.00	86,265		
Wood blocking at window openings		9,585	lf	14.00	134,190		
SUBTOTAL						3,313,828	

B2030 EXTERIOR DOORS							
<u>Exterior Doors - Aluminum</u>							
6'-0" x 7'-0"		10	pr	10,000.00	100,000		
3'-0" x 7'-0"		6	ea	5,000.00	30,000		
<u>FRP doors, frames and HW</u>							
Single leaf - allow		1	ea	1,600.00	1,600		
Double leaf - allow		2	pr	2,500.00	5,000		
Overhead door		1	al	7,500.00	7,500		
<u>Miscellaneous</u>							
Backer rod & sealant to exterior doors		359	lf	5.00	1,795		
Wood blocking at door openings		359	lf	4.00	1,436		
SUBTOTAL						147,331	

TOTAL - EXTERIOR CLOSURE							\$11,495,334
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B30 ROOFING							
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B3010 ROOF COVERINGS							
PVC roof membrane, complete		113,737	sf	22.00	2,502,214		
12" wide Factory fabricated pre-finished aluminum fascia trim/roof edge		3,800	lf	50.00	190,000		



PSR Estimate

GFA 213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3 - NEW CONSTRUCTION

176	Membrane roof walkway pads	1	ls	8,000.00	8,000			
177	Canopy - allowance	1,000	sf	75.00	75,000			
178	Miscellaneous sealants & flashings at roof	113,737	sf	1.50	170,606			
179	Roof blocking	22,800	lf	8.00	182,400			
180	Allowance for miscellaneous roof accessories; hatches, ladders etc.	1	ls	25,000.00	25,000			
181	Premium for roof garden	2,800	sf	40.00	112,000			
182	SUBTOTAL					3,265,220		
183								
184	B3020 ROOF OPENINGS							
185	Aluminum skylight - allow	1	ls	50,000.00	50,000			
186	SUBTOTAL					50,000		
187								
188	TOTAL - ROOFING							\$3,315,220

C10 INTERIOR CONSTRUCTION

192								
193	C1010 PARTITIONS							
194	Operable walls; glass folding	3,675	sf	150.00	551,250			
195	Operable walls; hard folding	2,100	sf	90.00	189,000			
196	Interior partitions/glazing	213,503	gsf	25.00	5,337,575			
197	SUBTOTAL					6,077,825		
198								
199	C1020 INTERIOR DOORS							
200	Allowance for all interior doors	213,503	gsf	6.00	1,281,018			
201	SUBTOTAL					1,281,018		
202								
203	C1030 SPECIALTIES / MILLWORK							
204	Toilet compartments & accessories	213,503	sf	0.80	170,802			
205	Tack boards/Marker Boards	213,503	gsf	1.00	213,503			
206	IWB					FF&E		
207	Fire extinguisher cabinets	61	ea	350.00	21,350			
208	Allowance for millwork	213,503	gsf	2.00	427,006			
209	Cubbies	1,055	opning	350.00	369,250			
210	Lockers	10	opning	220.00	2,200			
211	Signage/ graphics	213,503	gsf	0.90	192,153			
212	Misc. blocking	213,503	gsf	0.50	106,752			
213	Misc. metals	213,503	gsf	1.50	320,255			
214	Misc. sealants	213,503	gsf	1.25	266,879			
215	SUBTOTAL					2,090,150		
216								
217	TOTAL - INTERIOR CONSTRUCTION							\$9,448,993

C20 STAIRCASES

222	C2010 STAIR CONSTRUCTION						
223	Egress stair	6	flt	30,000.00	180,000		
224	Main stair	2	flt	60,000.00	120,000		
225	Concrete fill to stairs	8	flt	3,500.00	28,000		
226	SUBTOTAL					328,000	
227							
228	C2020 STAIR FINISHES						
229	Rubber tile at egress stairs - landings	480	sf	14.00	6,720		
230	Rubber tile at egress stairs - treads & risers	2,114	lft	22.00	46,508		
231	High performance coating to stairs including all railings etc.	8	flt	3,000.00	24,000		
232	SUBTOTAL					77,228	
233							



PSR Estimate

GFA 213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3 - NEW CONSTRUCTION

234	TOTAL - STAIRCASES						\$405,228
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235							
236							
237	C30 INTERIOR FINISHES						

238	C3010 WALL FINISHES						
239	Wall finishes; complete						
240		213,503	gsf	7.50	1,601,273		
241	SUBTOTAL						1,601,273

242	C3020 FLOOR FINISHES						
243	Floor finishes complete; typical flooring is Linoleum; includes athletic flooring and all CT where required						
244		213,503	gsf	13.50	2,882,291		
245	SUBTOTAL						2,882,291

246	C3030 CEILING FINISHES						
247	Ceilings; complete						
248		213,503	gsf	10.50	2,241,782		
249	SUBTOTAL						2,241,782

250							
251	TOTAL - INTERIOR FINISHES						\$6,725,346

252							
253							
254	D10 CONVEYING SYSTEMS						

255	D1010 ELEVATOR						
256	Elevator pit ladder & sills						
257		1	ls	10,000.00	10,000		
258	Passenger elevator, 4 stop						220,000
259	Passenger elevator, 2 stop						110,000
260	SUBTOTAL						340,000

261							
262	TOTAL - CONVEYING SYSTEMS						\$340,000

263							
264							
265	D20 PLUMBING						

266	D20 PLUMBING, GENERALLY						
267	New plumbing; Complete; includes domestic water booster pump						
268		213,503	gsf	17.50	3,736,303		
269	SUBTOTAL						3,736,303

270							
271	TOTAL - PLUMBING						\$3,736,303

272							
273							
274	D30 HVAC						

275	D30 HVAC, GENERALLY						
276	HVAC equipment; Ton air-cooled modular heat pump units; DOAS for displacement cooling including VAV boxes and displacement diffusers						
277		213,503	gsf	8.00	1,708,024		
278	Air distribution						2,135,030
279	Ductwork & accessories						3,629,551
280	Hot water piping						1,708,024
281	Refrigerant piping						640,509
282	Condensate drain piping						213,503
283	Pipe insulation						320,255
284	Automatic temperature control DDC						1,281,018
285	Testing & balancing						213,503
286	Miscellaneous - Fees, Permits, Coordination						427,006
287	SUBTOTAL						12,276,423

288							
289	TOTAL - HVAC						\$12,276,423



PSR Estimate

GFA 213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3 - NEW CONSTRUCTION

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D40 FIRE PROTECTION

D40 FIRE PROTECTION, GENERALLY

Fire pump	1	ls	90,000.00	90,000		
Fire protection	213,503	gsf	5.50	1,174,267		
SUBTOTAL						1,264,267

TOTAL - FIRE PROTECTION \$1,264,267

D50 ELECTRICAL

Electrical requirements including gear and distribution, sub-metering, equipment wiring and connections, Em Gen diesel 400 Kw, lighting, networked light controls, branch devices and associated wiring. Fire alarm system, BDA, Mass notification system, and lightening protection system	213,503	gsf	28.00	5,978,084		
BDA system	213,503	gsf	0.65	138,777		
Classroom speech enhancement	35	rooms	3,000.00	105,000		
Fire alarm system	213,503	gsf	2.10	448,356		
Telecommunications including devices, cabling, network switches (by FFE), sound systems at gym, audio & video equipment, PA, Security system	213,503	gsf	8.00	1,708,024		
SUBTOTAL						8,378,241

TOTAL - ELECTRICAL \$8,378,241

E10 EQUIPMENT

E10 EQUIPMENT, GENERALLY

Residential appliances	1	ls	15,000.00	15,000		
Kitchen Equipment	1	ls	360,000.00	360,000		
Platform Curtains & Rigging	1	ls	75,000.00	75,000		
Projection screens	1	ea	25,000.00	25,000		

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	1,320	sf	20.00	26,400		
Flexitorium seating; 400 seats	1	ls	56,000.00	56,000		
Motorized assisted telescoping gymnasium bleacher seating, 100 seats	1	ls	18,000.00	18,000		
SUBTOTAL						682,800

TOTAL - EQUIPMENT \$682,800

E20 FURNISHINGS

E2010 FIXED FURNISHINGS

Casework allowance (solid surface tops at all locations)	213,503	gsf	9.00	1,921,527		
Recessed entry mats - allow	200	sf	32.00	6,400		
Walk off mats - allow	200	sf	15.00	3,000		
Window treatments	25,906	sf	7.00	181,342		
SUBTOTAL						2,112,269



PSR Estimate

GFA

213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3 - NEW CONSTRUCTION

344 **E2020 MOVABLE FURNISHINGS**
 345 All movable furnishings to be provided and installed by owner

346 SUBTOTAL NIC

TOTAL - FURNISHINGS	\$2,112,269
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F10 SPECIAL CONSTRUCTION

353 **F10 SPECIAL CONSTRUCTION**
 354 No items in this section
 355 SUBTOTAL

TOTAL - SPECIAL CONSTRUCTION

F20 SELECTIVE BUILDING DEMOLITION
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362 **F2010 BUILDING ELEMENTS DEMOLITION**
 363 No items in this section
 364 SUBTOTAL

366 **F2020 HAZARDOUS COMPONENTS ABATEMENT**
 367 Removal of Asbestos Containing Materials in existing building -
 Included in Summary

368 SUBTOTAL

TOTAL - SELECTIVE BUILDING DEMOLITION
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PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITework - ALTERNATIVE 3

1							
2	G	SITework	825,000	sf		-	
3							
4	G10	SITE PREPARATION & DEMOLITION					
5		<u>Site Demolitions and Relocations</u>					
6		Clear and grub allowance	1	ls	150,000.00	150,000	
7		Remove and dispose Bituminous Paving	1	ls	125,000.00	125,000	
8		Protect and maintain trees	1	ls	25,000.00	25,000	
9		Remove existing utilities + structures	1	ls	10,000.00	10,000	
10		Site construction fence/barricades	3,800	lf	18.00	68,400	
11		<u>Site Earthwork</u>					
12		Strip topsoil, store on site	9,259	cy	16.00	148,144	
13		Fine grading	91,667	sy	2.00	183,334	
14		Cut, store onsite	26,000	cy	15.00	390,000	
15		Fill	22,400	cy	15.00	336,000	
16		Export excess material	3,600	cy	18.00	64,800	
17		Rock removal	5,000	cy	80.00	400,000	
18		Construction entrance	2,000	sf	6.00	12,000	
19		Silt fence/erosion control	3,800	lf	11.00	41,800	
20		Erosion control maintenance	1	ls	25,000.00	25,000	
21		<u>Hazardous Waste Remediation</u>					
22		Remove oil tanks				NR	
23		SUBTOTAL					1,979,478
24							
25	G20	SITE IMPROVEMENTS					
26		<u>Roadways and Parking Lots</u>					
27		Bituminous concrete paving	175,000	sf		-	
28		gravel base 12"	6,481	cy	38.00	246,278	
29		bituminous concrete 4"	19,444	sy	28.00	544,432	
30		Vertical granite curbs	7,050	lf	42.00	296,100	
31		Other road markings	1	ls	10,000.00	10,000	
32		HC curb cuts	3	loc	350.00	1,050	
33		New traffic signs	1	ls	10,000.00	10,000	
34		Hard surface Play/Overflow Parking	11,000	sf		-	
35		gravel base 12"	407	cy	38.00	15,466	
36		bituminous concrete 4"	1,222	sy	28.00	34,216	
37		Play markings	1	ls	2,500.00	2,500	
38		<u>Pedestrian paving</u>					
39		Concrete paving, allow					
40		gravel base; 8" thick	496	cy	38.00	18,848	
41		concrete paving; 4" thick, broom finish	20,000	sf	9.00	180,000	
42		Plaza Paving					
43		gravel base; 8" thick	323	cy	38.00	12,274	
44		concrete paving; 4" thick	13,000	sf	9.00	117,000	
45		paving; plaza	13,000	sf	30.00	390,000	
46		<u>Play surface</u>					
47		gravel base; 8" thick	447	cy	38.00	16,986	
48		Poured in place rubber safety surface	18,000	sf	18.50	333,000	
49		Play equipment	2	loc	250,000.00	500,000	
50		Play equipment; Pre-K	1	loc	100,000.00	100,000	
51		5' Ornamental fence	740	lf	180.00	133,200	
52		<u>Sports Fields</u>	108,000	sf			
53		Gravel base - assumed 12" thick	4,000	cy	38.00	152,000	
54		Sports seeding	108,000	sf	0.50	54,000	
55		Spread existing amended topsoil, 6"	2,000	cy	26.00	52,000	
56		Infield mix	2	loc	40,000.00	80,000	



PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITEWORK - ALTERNATIVE 3							
57	Bases home plate etc.	2	sets	4,250.00	8,500		
58	Fencing	1	ls	100,000.00	100,000		
59	Baseball/Softball backstops	2	loc	60,000.00	120,000		
60	Player benches	2	sets	5,000.00	10,000		
61	<u>Site Improvements; allowances</u>						
62	Wetlands Boardwalk	1	ls	350,000.00	350,000		
63	Entrance sign	1	ea	15,000.00	15,000		
64	Allowance for other site improvements; site steps, walls, benches, fencing	1	ls	300,000.00	300,000		
65	<u>Landscaping & Plantings:</u>						
66	Spread existing amended topsoil, 6" @ seeded areas	7,259	cy	35.00	254,065		
67	Lawn - loam and seed	387,603	sf	0.35	135,661		
68	<u>Landscaping & Plantings:</u>						
69	Allowance	1	ls	300,000.00	300,000		
70	SUBTOTAL					4,892,576	
71							
72	G30 CIVIL MECHANICAL UTILITIES						
73	<u>Water supply</u>						
74	8" CLDI	2,000	lf	90.00	180,000		
75	6" DI	300	lf	70.00	21,000		
76	Connect to existing	2	loc	20,000.00	40,000		
77	Fire hydrants	4	loc	2,600.00	10,400		
78	FD connection	1	ea	2,000.00	2,000		
79	Valves	8	ea	750.00	6,000		
80	<u>Sanitary sewer</u>						
81	8" PVC	700	lf	60.00	42,000		
82	6" PVC	200	lf	50.00	10,000		
83	New SMH	6	loc	5,500.00	33,000		
84	Grease trap	1	ls	12,000.00	12,000		
85	Connect to existing SMH	1	ea	2,000.00	2,000		
86	<u>Storm Sewer</u>						
87	Allowance for complete system; piping, drainage structures, rain gardens and infiltration systems - pricing based on site hard surface area	226,000	sf	8.00	1,808,000		
88	SUBTOTAL					2,166,400	
89							
90	G40 ELECTRICAL UTILITIES						
91	<u>Power</u>						
92	Utility company charges (allow)	1	ls	20,000.00	20,000	By Owner	
93	Riser	1	ea	1,000.00	1,000		
94	Primary ductbank 2-5" PVC conduits, empty, concrete encased	700	lf	95.00	66,500		
95	Transformer by utility company					By Others	
96	Transformer pad	1	ea	2,500.00	2,500		
97	Secondary ductbank 6-4" PVC conduits, 2500A service, concrete encased	120	lf	420.00	50,400		
98	Generator ductbank EE 5-4" PVC conduits, 800A & 100A service & control wiring, concrete encased	50	lf	200.00	10,000		
99	Conduit for future PV	200	lf	50.00	10,000		
100	<u>Communications</u>						
101	Riser	1	ls	1,000.00	1,000		
102	Telecom ductbank DD 4-4" PVC conduits, empty, concrete encased	700	lf	150.00	105,000		
103	<u>Site Lighting</u>						
104	Lighting including circuitry	175,000	sf	2.50	437,500		
105	SUBTOTAL					683,900	
106							



PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITework - ALTERNATIVE 3

107

TOTAL - SITE DEVELOPMENT							\$9,722,354
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29-Apr-20

West Elementary School
Andover, MA

PSR Estimate

GFA

213,503

CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>		<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>
SUMMARY ALTERNATIVE 3B				
A10	FOUNDATIONS		\$3,555,891	
A1010	Standard Foundations	\$2,055,725		\$9.63
A1020	Special Foundations	\$0		\$0.00
A1030	Lowest Floor	\$1,500,166		\$7.03
A20	BASEMENT CONSTRUCTION		\$0	
A2010	Basement Excavation	\$0		\$0.00
A2020	Basement Walls	\$0		\$0.00
B10	SUPERSTRUCTURE		\$8,547,436	
B1010	Upper Floor	\$4,689,506		\$21.96
B1020	Roof Construction	\$3,857,930		\$18.07
B20	EXTERIOR CLOSURE		\$11,495,334	
B2010	Exterior Walls	\$8,034,175		\$37.63
B2020	Windows	\$3,313,828		\$15.52
B2030	Exterior Doors	\$147,331		\$0.69
B30	ROOFING		\$3,315,220	
B3010	Roof Coverings	\$3,265,220		\$15.29
B3020	Roof Openings	\$50,000		\$0.23
C10	INTERIOR CONSTRUCTION		\$9,448,993	
C1010	Partitions	\$6,077,825		\$28.47
C1020	Interior Doors	\$1,281,018		\$6.00
C1030	Specialties/Millwork	\$2,090,150		\$9.79
C20	STAIRCASES		\$405,228	
C2010	Stair Construction	\$328,000		\$1.54
C2020	Stair Finishes	\$77,228		\$0.36
C30	INTERIOR FINISHES		\$6,725,346	
C3010	Wall Finishes	\$1,601,273		\$7.50
C3020	Floor Finishes	\$2,882,291		\$13.50
C3030	Ceiling Finishes	\$2,241,782		\$10.50
D10	CONVEYING SYSTEMS		\$340,000	
D1010	Elevator	\$340,000		\$1.59
D20	PLUMBING		\$3,736,303	
D20	Plumbing	\$3,736,303		\$17.50
D30	HVAC		\$12,276,423	
D30	HVAC	\$12,276,423		\$57.50



29-Apr-20

West Elementary School
Andover, MA

PSR Estimate

GFA

213,503

CONSTRUCTION COST SUMMARY

<i>BUILDING SYSTEM</i>	<i>SUB-TOTAL</i>	<i>TOTAL</i>	<i>\$/SF</i>
SUMMARY ALTERNATIVE 3B			
D40 FIRE PROTECTION		\$1,264,267	
D40 Fire Protection	\$1,264,267		\$5.92
D50 ELECTRICAL		\$8,378,241	
D5040 Electrical Systems	\$8,378,241		\$39.24
E10 EQUIPMENT		\$682,800	
E10 Equipment	\$682,800		\$3.20
E20 FURNISHINGS		\$2,112,269	
E2010 Fixed Furnishings	\$2,112,269		\$9.89
F20 HAZMAT REMOVALS		\$0	
F2010 Interior Demo	\$0		\$0.00
TOTAL DIRECT COST (Trade Costs)		\$72,283,751	\$338.56



PSR Estimate

GFA

213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3B - NEW CONSTRUCTION

GROSS FLOOR AREA CALCULATION

1								
2	Level 1	103,397						
3	Level 2	58,185						
4	Level 3	43,921						
5	Level 3 PH	2,294						
6	Level 4 PH	5,706						
7								
8	TOTAL GROSS FLOOR AREA (GFA)					213,503	sf	

A10 FOUNDATIONS

A1010 STANDARD FOUNDATIONS

Strip footings: 3'-0" x 1'-0"

15	Excavation	2,981	cy	12.00	35,772			
16	Store on site for reuse	2,981	cy	8.00	23,848			
17	Backfill with selected material	2,713	cy	9.00	24,417			
18	Formwork	27,600	sf	14.00	386,400			
19	Re-bar	23,000	lbs	1.50	34,500			
20	Concrete material; 3,000 psi	268	cy	135.00	36,180			
21	Placing concrete	268	cy	120.00	32,160			
22	<u>Foundation wall: 18" thick</u>							
23	Formwork	18,400	sf	18.00	331,200			
24	Re-bar	36,800	lbs	1.50	55,200			
25	Concrete material; 3,000 psi	537	cy	135.00	72,495			
26	Placing concrete	537	cy	120.00	64,440			
27	Dampproofing foundation wall and footing	13,800	sf	1.85	NR			
28	Insulation to foundation walls; 2" thick; both sides	18,400	sf	2.50	46,000			
29	Form shelf	2,300	lf	6.00	13,800			
30	<u>Column footings - 9' x 9' x 2'-2" interior footing</u>							
31	Excavation	2,504	cy	14.00	35,056			
32	Store on site for reuse	2,504	cy	8.00	20,032			
33	Backfill with selected material	1,821	cy	12.00	21,852			
34	Formwork	7,801	sf	16.00	124,816			
35	Re-bar	75,000	lbs	1.50	112,500			
36	Concrete material; 3,000 psi	683	cy	135.00	92,205			
37	Placing concrete	683	cy	150.00	102,450			
38	<u>Column footings - 6'-6" x 6'-6" x 1'-8" exterior footing</u>							
39	Excavation	751	cy	14.00	10,514			
40	Store on site for reuse	751	cy	8.00	6,008			
41	Backfill with selected material	499	cy	12.00	5,988			
42	Formwork	3,987	sf	16.00	63,792			
43	Re-bar	32,200	lbs	1.50	48,300			
44	Concrete material; 3,000 psi	252	cy	135.00	34,020			
45	Placing concrete	252	cy	150.00	37,800			
46	<u>Miscellaneous</u>							
47	Foundation drain	2,300	lf	16.00	36,800			
48	Piers/pilasters	114	cy	750.00	85,500			
49	Set anchor bolts grout plates	192	ea	165.00	31,680			
50	Dewatering allowance	1	ls	30,000.00	30,000			
51	SUBTOTAL						2,055,725	

A1020 SPECIAL FOUNDATIONS

No Work in this section

SUBTOTAL

A1030 LOWEST FLOOR CONSTRUCTION

New Slab on grade, 4-6" thick

57							
58	Rough and fine grade	103,397	sf	0.50	51,699		



PSR Estimate

GFA 213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
ALTERNATIVE 3B - NEW CONSTRUCTION								
60	Base course; 12" thick; compacted	3,830	cy	40.00	153,200			
61	Mesh Re-bar 15% lap	118,907	sf	1.15	136,743			
62	Concrete -5" thick, average; 4,000 psi	1,649	cy	145.00	239,105			
63	Place & finish including control joints	103,397	sf	2.50	258,493			
64	Moisture Mitigation; admixture	1,649	cy	60.00	98,940			
65	Vapor barrier under slab on grade	103,397	sf	1.00	103,397			
66	Rigid insulation beneath slab on grade; 2" thick	103,397	sf	2.50	258,493			
67	<u>Miscellaneous</u>							
68	Radon system; passive system	103,397	sf	1.50	155,096			
69	Equipment pads	1	ls	10,000.00	10,000			
70	New elevator pit	1	ls	35,000.00	35,000			
71	SUBTOTAL					1,500,166		
72								
73	TOTAL - FOUNDATIONS							\$3,555,891
74								
75								
76	A20 BASEMENT CONSTRUCTION							
77								
78	A2010 BASEMENT EXCAVATION							
79	No Work in this section							
80	SUBTOTAL							
81								
82	A2020 BASEMENT WALLS							
83	No Work in this section							
84	SUBTOTAL							
85								
86	TOTAL - BASEMENT CONSTRUCTION							
87								
88								
89	B10 SUPERSTRUCTURE							
90								
91	B1010 FLOOR CONSTRUCTION							
92	<u>Floor Structure - Steel:</u>							
93	Structure at Typical floors; 13 PSF	716	tns	3,900.00	2,792,400			
94	Premium for HSS steel	179	tns	400.00	71,600			
95	Shear studs	13,763	ea	6.00	82,578			
96	<u>Decking</u>							
97	Metal floor decking; 2", 18 gage	110,106	sf	4.00	440,424			
98	Mesh reinforcement in concrete topping	126,622	sf	1.15	145,615			
99	Concrete topping to metal decking, 5 1/2" thick; Light weight	2,034	cy	175.00	355,950			
100	Placing concrete topping	110,106	sf	3.00	330,318			
101	Moisture Mitigation; admixture	2,034	cy	60.00	122,040			
102	<u>Miscellaneous</u>							
103	Rebar at slab edges	27,527	lbs	1.50	41,291			
104	Firestopping at floor penetrations	213,503	gsf	0.15	32,025			
105	Spray-applied fireproofing to beams and columns only	110,106	sf	2.50	275,265			
106	SUBTOTAL					4,689,506		
107								
108	B1020 ROOF CONSTRUCTION							
109	<u>Roof Structure - Steel:</u>							
110	Structure at roof; 13 PSF	739	tns	3,900.00	2,882,100			
111	Premium for HSS steel	185	tns	400.00	74,000			
112	<u>Decking</u>							
113	Metal roof decking; 3"	113,737	sf	3.75	426,514			
114	Premium for acoustic deck at Gymnasium, Flexitorium and Commons	20,821	sf	5.00	104,105			
115	<u>Miscellaneous</u>							
116	Canopy framing - allowance	1,000	sf	30.00	30,000			
117	Spray-applied fireproofing to beams and deck	113,737	sf	3.00	341,211			
118	SUBTOTAL					3,857,930		
119								



PSR Estimate

GFA 213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3B - NEW CONSTRUCTION

TOTAL - SUPERSTRUCTURE							\$8,547,436
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B20 EXTERIOR CLOSURE							
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B2010 EXTERIOR WALLS	60,447	sf					
<u>Interior skin</u>							
6" metal stud back-up	60,447	sf	10.00		604,470		
GWB to inside of exterior wall; includes sealing at all penetrations	60,447	sf	5.50		332,459		
Gypsum densglass sheathing board	60,447	sf	2.90		175,296		
Air/Vapor barrier to exterior walls, peel + stick	60,447	sf	8.00		483,576		
Rigid insulation, 3"	60,447	sf	2.50		151,118		
Batt insulation	60,447	sf	7.50		453,353		
Soffit framing including backup	2,800	sf	23.40		65,520		
<u>Exterior skin</u>							
Face brick with trim	15,112	sf	40.00		604,480		
Composite aluminum panel rainscreen system; Phenolic or similar; 75% of exterior hard wall	45,335	sf	80.00		3,626,800		
Insulated metal panel system at PH installed on girts	10,613	sf	75.00		795,975		
Exterior signage - allowance	1	ls	10,000.00		10,000		
Exterior soffit; composite aluminum panel at overhangs and canopy	2,800	sf	90.00		252,000		
Miscellaneous sealants & flashings at closure	42,781	sf	1.00		42,781		
Misc. metals	96,966	sf	1.50		145,449		
Scaffold to exterior walls	96,966	sf	3.00		290,898		
SUBTOTAL							8,034,175

B2020 WINDOWS	25,906	sf					
Aluminum high performance window system	18,134	sf	105.00		1,904,070		
Curtainwall w/ spandrel panels; high performance glazing (30%)	7,772	sf	125.00		971,500		
Sunshades - allow	1	ls	150,000.00		150,000		
Louvers - allow	100	sf	55.00		5,500		
Air/Vapor barrier at window & louver openings	9,585	lf	6.50		62,303		
Backer rod & sealant at window & louver openings	9,585	lf	9.00		86,265		
Wood blocking at window openings	9,585	lf	14.00		134,190		
SUBTOTAL							3,313,828

B2030 EXTERIOR DOORS							
<u>Exterior Doors - Aluminum</u>							
6'-0" x 7'-0"	10	pr	10,000.00		100,000		
3'-0" x 7'-0"	6	ea	5,000.00		30,000		
<u>FRP doors, frames and HW</u>							
Single leaf - allow	1	ea	1,600.00		1,600		
Double leaf - allow	2	pr	2,500.00		5,000		
Overhead door	1	al	7,500.00		7,500		
<u>Miscellaneous</u>							
Backer rod & sealant to exterior doors	359	lf	5.00		1,795		
Wood blocking at door openings	359	lf	4.00		1,436		
SUBTOTAL							147,331

TOTAL - EXTERIOR CLOSURE							\$11,495,334
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B30 ROOFING							
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B3010 ROOF COVERINGS							
PVC roof membrane, complete	113,737	sf	22.00		2,502,214		
12" wide Factory fabricated pre-finished aluminum fascia trim/roof edge	3,800	lf	50.00		190,000		



PSR Estimate

GFA 213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3B - NEW CONSTRUCTION

176	Membrane roof walkway pads	1	ls	8,000.00	8,000			
177	Canopy - allowance	1,000	sf	75.00	75,000			
178	Miscellaneous sealants & flashings at roof	113,737	sf	1.50	170,606			
179	Roof blocking	22,800	lf	8.00	182,400			
180	Allowance for miscellaneous roof accessories; hatches, ladders etc.	1	ls	25,000.00	25,000			
181	Premium for roof garden	2,800	sf	40.00	112,000			
182	SUBTOTAL					3,265,220		
183								
184	B3020 ROOF OPENINGS							
185	Aluminum skylight - allow	1	ls	50,000.00	50,000			
186	SUBTOTAL					50,000		
187								
188	TOTAL - ROOFING							\$3,315,220

C10 INTERIOR CONSTRUCTION

192								
193	C1010 PARTITIONS							
194	Operable walls; glass folding	3,675	sf	150.00	551,250			
195	Operable walls; hard folding	2,100	sf	90.00	189,000			
196	Interior partitions/glazing	213,503	gsf	25.00	5,337,575			
197	SUBTOTAL					6,077,825		
198								
199	C1020 INTERIOR DOORS							
200	Allowance for all interior doors	213,503	gsf	6.00	1,281,018			
201	SUBTOTAL					1,281,018		
202								
203	C1030 SPECIALTIES / MILLWORK							
204	Toilet compartments & accessories	213,503	sf	0.80	170,802			
205	Tack boards/Marker Boards	213,503	gsf	1.00	213,503			
206	IWB					FF&E		
207	Fire extinguisher cabinets	61	ea	350.00	21,350			
208	Allowance for millwork	213,503	gsf	2.00	427,006			
209	Cubbies	1,055	opning	350.00	369,250			
210	Lockers	10	opning	220.00	2,200			
211	Signage/ graphics	213,503	gsf	0.90	192,153			
212	Misc. blocking	213,503	gsf	0.50	106,752			
213	Misc. metals	213,503	gsf	1.50	320,255			
214	Misc. sealants	213,503	gsf	1.25	266,879			
215	SUBTOTAL					2,090,150		
216								
217	TOTAL - INTERIOR CONSTRUCTION							\$9,448,993

C20 STAIRCASES

222	C2010 STAIR CONSTRUCTION						
223	Egress stair	6	flt	30,000.00	180,000		
224	Main stair	2	flt	60,000.00	120,000		
225	Concrete fill to stairs	8	flt	3,500.00	28,000		
226	SUBTOTAL					328,000	
227							
228	C2020 STAIR FINISHES						
229	Rubber tile at egress stairs - landings	480	sf	14.00	6,720		
230	Rubber tile at egress stairs - treads & risers	2,114	lft	22.00	46,508		
231	High performance coating to stairs including all railings etc.	8	flt	3,000.00	24,000		
232	SUBTOTAL					77,228	
233							



PSR Estimate

GFA 213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3B - NEW CONSTRUCTION

234	TOTAL - STAIRCASES						\$405,228
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235							
236							
237	C30 INTERIOR FINISHES						

238	C3010 WALL FINISHES						
239	Wall finishes; complete						
240		213,503	gsf	7.50	1,601,273		
241	SUBTOTAL						1,601,273

242	C3020 FLOOR FINISHES						
243	Floor finishes complete; typical flooring is Linoleum; includes athletic flooring and all CT where required						
244		213,503	gsf	13.50	2,882,291		
245	SUBTOTAL						2,882,291

246	C3030 CEILING FINISHES						
247	Ceilings; complete						
248		213,503	gsf	10.50	2,241,782		
249	SUBTOTAL						2,241,782

250							
251	TOTAL - INTERIOR FINISHES						\$6,725,346

252							
253							
254	D10 CONVEYING SYSTEMS						

255	D1010 ELEVATOR						
256	Elevator pit ladder & sills						
257		1	ls	10,000.00	10,000		
258	Passenger elevator, 4 stop						
259		1	ea	220,000.00	220,000		
260	Passenger elevator, 2 stop						
261		1	ea	110,000.00	110,000		
262	SUBTOTAL						340,000

263	TOTAL - CONVEYING SYSTEMS						\$340,000
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264							
265	D20 PLUMBING						

266	D20 PLUMBING, GENERALLY						
267	New plumbing; Complete including booster pump						
268		213,503	gsf	17.50	3,736,303		
269	SUBTOTAL						3,736,303

270	TOTAL - PLUMBING						\$3,736,303
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271							
272							
273							
274	D30 HVAC						

275	D30 HVAC, GENERALLY						
276	HVAC equipment; air-cooled modular heat pump units; DOAS for displacement cooling including VAV boxes and displacement diffusers						
277		213,503	gsf	8.00	1,708,024		
278	Air distribution						
279		213,503	gsf	10.00	2,135,030		
280	Ductwork & accessories						
281		213,503	gsf	17.00	3,629,551		
282	Hot water piping						
283		213,503	gsf	8.00	1,708,024		
284	Refrigerant piping						
285		213,503	gsf	3.00	640,509		
286	Condensate drain piping						
287		213,503	gsf	1.00	213,503		
288	Pipe insulation						
289		213,503	gsf	1.50	320,255		
290	Automatic temperature control DDC						
291		213,503	gsf	6.00	1,281,018		
292	Testing & balancing						
293		213,503	gsf	1.00	213,503		
294	Miscellaneous - Fees, Permits, Coordination						
295		213,503	gsf	2.00	427,006		
296	SUBTOTAL						12,276,423

297	TOTAL - HVAC						\$12,276,423
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PSR Estimate

GFA 213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3B - NEW CONSTRUCTION

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D40 FIRE PROTECTION

D40 FIRE PROTECTION, GENERALLY

	Fire pump	1	ls	90,000.00	90,000		
210000	Fire protection	213,503	gsf	5.50	1,174,267		
	SUBTOTAL						1,264,267

TOTAL - FIRE PROTECTION \$1,264,267

D50 ELECTRICAL

Electrical requirements including gear and distribution, sub-metering, equipment wiring and connections, Em Gen diesel 400 Kw, lighting, networked light controls, branch devices and associated wiring. Fire alarm system, BDA, Mass notification system, and lightening protection system

213,503 gsf 28.00 5,978,084

BDA system

213,503 gsf 0.65 138,777

Classroom speech enhancement

35 rooms 3,000.00 105,000

Fire alarm system

213,503 gsf 2.10 448,356

Telecommunications including devices, cabling, network switches (by FFE), sound systems at gym, audio & video equipment, PA, Security system

213,503 gsf 8.00 1,708,024

SUBTOTAL

8,378,241

TOTAL - ELECTRICAL \$8,378,241

E10 EQUIPMENT

E10 EQUIPMENT, GENERALLY

Residential appliances

1 ls 15,000.00 15,000

Kitchen Equipment; reheat/serving only

1 ls 360,000.00 360,000

Platform Curtains & Rigging

1 ls 75,000.00 75,000

Projection screens

1 ea 25,000.00 25,000

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

1,320 sf 20.00 26,400

Flexitorium seating; 400 seats

1 ls 56,000.00 56,000

Motorized assisted telescoping gymnasium bleacher seating, 100 seats

1 ls 18,000.00 18,000

SUBTOTAL

682,800

TOTAL - EQUIPMENT \$682,800

E20 FURNISHINGS

E2010 FIXED FURNISHINGS

Casework allowance (solid surface tops at all locations)

213,503 gsf 9.00 1,921,527

Recessed entry mats - allow

200 sf 32.00 6,400

Walk off mats - allow

200 sf 15.00 3,000

Window treatments

25,906 sf 7.00 181,342

SUBTOTAL

2,112,269

E2020 MOVABLE FURNISHINGS



PSR Estimate

GFA

213,503

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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ALTERNATIVE 3B - NEW CONSTRUCTION

345 All movable furnishings to be provided and installed by owner

346 SUBTOTAL

NIC

TOTAL - FURNISHINGS							\$2,112,269
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F10 SPECIAL CONSTRUCTION

353 **F10 SPECIAL CONSTRUCTION**

354 No items in this section

355 SUBTOTAL

TOTAL - SPECIAL CONSTRUCTION							
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F20 SELECTIVE BUILDING DEMOLITION

362 **F2010 BUILDING ELEMENTS DEMOLITION**

363 No items in this section

364 SUBTOTAL

366 **F2020 HAZARDOUS COMPONENTS ABATEMENT**

367 Removal of Asbestos Containing Materials in existing building -

Included in Summary

368 SUBTOTAL

TOTAL - SELECTIVE BUILDING DEMOLITION							
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PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITEWORK - ALTERNATIVE 3B

1							
2	G	SITEWORK	825,000	sf		-	
3							
4	G10	SITE PREPARATION & DEMOLITION					
5		<u>Site Demolitions and Relocations</u>					
6		Clear and grub allowance	1	ls	150,000.00	150,000	
7		Remove and dispose Bituminous Paving	1	ls	125,000.00	125,000	
8		Protect and maintain trees	1	ls	25,000.00	25,000	
9		Remove existing utilities + structures	1	ls	10,000.00	10,000	
10		Site construction fence/barricades	3,800	lf	18.00	68,400	
11		<u>Site Earthwork</u>					
12		Strip topsoil, store on site	9,259	cy	16.00	148,144	
13		Fine grading	91,667	sy	2.00	183,334	
14		Cut, store onsite	22,600	cy	15.00	339,000	
15		Fill	20,500	cy	15.00	307,500	
16		Export excess material	2,100	cy	18.00	37,800	
17		Rock removal	4,000	cy	80.00	320,000	
18		Construction entrance	2,000	sf	6.00	12,000	
19		Silt fence/erosion control	3,800	lf	11.00	41,800	
20		Erosion control maintenance	1	ls	25,000.00	25,000	
21		<u>Hazardous Waste Remediation</u>					
22		Remove oil tanks				NR	
23		SUBTOTAL					1,792,978
24							
25	G20	SITE IMPROVEMENTS					
26		<u>Roadways and Parking Lots</u>					
27		Bituminous concrete paving	175,000	sf		-	
28		gravel base 12"	6,481	cy	38.00	246,278	
29		bituminous concrete 4"	19,444	sy	28.00	544,432	
30		Vertical granite curbs	8,350	lf	42.00	350,700	
31		Other road markings	1	ls	10,000.00	10,000	
32		HC curb cuts	3	loc	350.00	1,050	
33		New traffic signs	1	ls	10,000.00	10,000	
34		Hard surface Play/Overflow Parking	12,600	sf		-	
35		gravel base 12"	467	cy	38.00	17,746	
36		bituminous concrete 4"	1,400	sy	28.00	39,200	
37		Play markings	1	ls	2,500.00	2,500	
38		<u>Pedestrian paving</u>					
39		Concrete paving, allow					
40		gravel base; 8" thick	496	cy	38.00	18,848	
41		concrete paving; 4" thick, broom finish	20,000	sf	9.00	180,000	
42		Plaza Paving					
43		gravel base; 8" thick	323	cy	38.00	12,274	
44		concrete paving; 4" thick	13,000	sf	9.00	117,000	
45		paving; plaza	13,000	sf	30.00	390,000	
46		<u>Play surface</u>					
47		gravel base; 8" thick	447	cy	38.00	16,986	
48		Poured in place rubber safety surface	18,000	sf	18.50	333,000	
49		Play equipment	2	loc	250,000.00	500,000	
50		Play equipment; Pre-K	1	loc	100,000.00	100,000	
51		5' Ornamental fence	740	lf	180.00	133,200	
52		<u>Sports Fields</u>	100,000	sf			
53		Gravel base - assumed 12" thick	3,704	cy	38.00	140,752	
54		Sports seeding	100,000	sf	0.50	50,000	
55		Spread existing amended topsoil, 6"	1,852	cy	26.00	48,152	
56		Infield mix	1	loc	40,000.00	40,000	



PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
SITework - ALTERNATIVE 3B							
57	Bases home plate etc.	1	sets	4,250.00	4,250		
58	Fencing	1	ls	50,000.00	50,000		
59	Baseball/Softball backstops	1	loc	60,000.00	60,000		
60	Player benches	1	sets	5,000.00	5,000		
61	<u>Site Improvements; allowances</u>						
62	Wetlands Boardwalk	1	ls	350,000.00	350,000		
63	Entrance sign	1	ea	15,000.00	15,000		
64	Allowance for other site improvements; site steps, walls, benches, fencing	1	ls	300,000.00	300,000		
65	<u>Landscaping & Plantings:</u>						
66	Spread existing amended topsoil, 6" @ seeded areas	7,407	cy	35.00	259,245		
67	Lawn - loam and seed	395,603	sf	0.35	138,461		
68	<u>Landscaping & Plantings:</u>						
69	Allowance	1	ls	300,000.00	300,000		
70	SUBTOTAL					4,784,074	
71							
72	G30 CIVIL MECHANICAL UTILITIES						
73	<u>Water supply</u>						
74	8" CLDI	2,000	lf	90.00	180,000		
75	6" DI	300	lf	70.00	21,000		
76	Connect to existing	2	loc	20,000.00	40,000		
77	Fire hydrants	4	loc	2,600.00	10,400		
78	FD connection	1	ea	2,000.00	2,000		
79	Valves	8	ea	750.00	6,000		
80	<u>Sanitary sewer</u>						
81	8" PVC	600	lf	60.00	36,000		
82	6" PVC	200	lf	50.00	10,000		
83	New SMH	6	loc	5,500.00	33,000		
84	Grease trap	1	ls	12,000.00	12,000		
85	Connect to existing SMH	1	ea	2,000.00	2,000		
86	<u>Storm Sewer</u>						
87	Allowance for complete system; piping, drainage structures, rain gardens and infiltration systems - pricing based on site hard surface area	226,000	sf	8.00	1,808,000		
88	SUBTOTAL					2,160,400	
89							
90	G40 ELECTRICAL UTILITIES						
91	<u>Power</u>						
92	Utility company charges (allow)	1	ls	20,000.00	20,000	By Owner	
93	Riser	1	ea	1,000.00	1,000		
94	Primary ductbank 2-5" PVC conduits, empty, concrete encased	600	lf	95.00	57,000		
95	Transformer by utility company					By Others	
96	Transformer pad	1	ea	2,500.00	2,500		
97	Secondary ductbank 6-4" PVC conduits, 2500A service, concrete encased	120	lf	420.00	50,400		
98	Generator ductbank EE 5-4" PVC conduits, 800A & 100A service & control wiring, concrete encased	50	lf	200.00	10,000		
99	Conduit for future PV	200	lf	50.00	10,000		
100	<u>Communications</u>						
101	Riser	1	ls	1,000.00	1,000		
102	Telecom ductbank DD 4-4" PVC conduits, empty, concrete encased	600	lf	150.00	90,000		
103	<u>Site Lighting</u>						
104	Lighting including circuitry	175,000	sf	2.50	437,500		
105	SUBTOTAL					659,400	
106							



PSR Estimate

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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SITework - ALTERNATIVE 3B

107

TOTAL - SITE DEVELOPMENT							\$9,396,852
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